

## **Farm Security and Rural Investment Act of 2002: Preliminary FAPRI Analysis**

May 6, 2002

The Food and Agricultural Policy Research Institute (FAPRI) has conducted a preliminary analysis of the impacts of the Farm Security and Rural Investment Act of 2002, the conference report on the 2002 farm bill, in response to Congressional requests.

As with previous FAPRI analysis of the House and Senate farm bills, this analysis focuses on effects of the first two titles of the legislation, the titles dealing with commodity and conservation programs. As with the earlier analysis, effects are measured relative to a baseline set of projections prepared in early 2001.

**Over the next few weeks, FAPRI intends to conduct an updated analysis of the bill that will incorporate more current market information. The new analysis will result in different estimates of prices, production, government costs, farm income, and other indicators. Without prejudging results of the forthcoming analysis, please note that market prices for several commodities are currently lower than FAPRI had projected in its 2001 baseline.**

With those caveats in mind, FAPRI estimates the following impacts of the first two titles of the legislation relative to the 2001 current-policy baseline.

- Relative to the baseline, net outlays on commodity programs increase by \$49.7 billion over the next 10 years. The corresponding estimate of the Congressional Budget Office (CBO) was \$47.7 billion, as compared to their April 2001 Budget Resolution baseline.
- The conservation title increases net outlays over the next ten years by \$13.2 billion over the FY02-11 period.
- Total area planted to major crops increases slightly in response to higher support levels, as increases in grain and cotton areas more than offset reductions in soybean area.
- Grain and cotton prices fall slightly in response to increased production, while oilseed prices increase marginally.
- The new dairy payment program results in a small increase in milk production and lower milk prices.
- The commodity program provisions of the legislation increase net farm income by an average of \$3.8 billion per year, and the conservation programs contribute another \$0.7 billion per year.
- Given a series of assumptions about how programs would be classified, there is a 19.3 percent chance that the U.S. will exceed its World Trade Organization (WTO) limit on amber box farm subsidies in the 2002 marketing year.
- Plausible alternative classifications of counter-cyclical payments and other USDA programs would significantly alter the estimated probabilities of exceeding the WTO limit.

**Table 1. Impacts of the Farm Security and Rural Investment Act of 2002 on the U.S. Crop Sector**

	Units	2002	2003	2004	2005	2006	2007	2008	2009	2010	02-10 avg.
(Changes on a crop-year basis relative to a March 2001 baseline)											
<b>Planted area</b>											
9 major crops*	mil. acres	2.09	1.96	1.46	1.14	0.90	0.66	0.47	0.35	0.23	1.03
Wheat	mil. acres	1.19	1.10	0.69	0.55	0.36	0.27	0.15	0.10	0.06	0.50
Corn	mil. acres	1.31	1.15	0.80	0.63	0.53	0.43	0.31	0.26	0.20	0.62
Soybeans	mil. acres	-1.33	-1.17	-0.82	-0.76	-0.67	-0.60	-0.48	-0.42	-0.38	-0.74
Upland cotton	mil. acres	0.11	0.10	0.12	0.10	0.08	0.07	0.06	0.05	0.04	0.08
Rice	mil. acres	0.02	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Sorghum	mil. acres	0.47	0.46	0.39	0.34	0.30	0.23	0.19	0.16	0.12	0.30
Barley	mil. acres	0.12	0.08	0.07	0.08	0.09	0.08	0.08	0.06	0.05	0.08
Oats	mil. acres	0.17	0.19	0.18	0.18	0.17	0.14	0.14	0.12	0.11	0.16
Sunflowers	mil. acres	0.03	0.04	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
<b>Crop prices</b>											
Wheat	\$/bu.	-0.04	-0.05	-0.04	-0.03	-0.03	-0.02	-0.01	-0.01	-0.01	-0.03
Corn	\$/bu.	-0.04	-0.06	-0.06	-0.05	-0.04	-0.03	-0.02	-0.02	-0.01	-0.04
Soybeans	\$/bu.	0.09	0.08	0.06	0.05	0.04	0.04	0.03	0.03	0.03	0.05
Upland cotton	\$/lb.	-0.002	-0.003	-0.003	-0.003	-0.002	-0.002	-0.002	-0.002	-0.001	-0.002
Rice	\$/cwt	-0.05	-0.05	-0.06	-0.05	-0.05	-0.05	-0.04	-0.03	-0.03	-0.05
Sorghum	\$/bu.	-0.06	-0.08	-0.07	-0.06	-0.05	-0.04	-0.03	-0.02	-0.02	-0.05
Barley	\$/bu.	-0.05	-0.06	-0.05	-0.05	-0.04	-0.04	-0.03	-0.02	-0.02	-0.04
<b>Crop gross returns**</b>											
Wheat	\$/bu.	0.48	0.38	0.35	0.29	0.23	0.18	0.15	0.13	0.11	0.26
Corn	\$/bu.	0.22	0.20	0.19	0.16	0.13	0.11	0.09	0.07	0.06	0.14
Soybeans	\$/bu.	0.30	0.30	0.28	0.28	0.27	0.27	0.26	0.26	0.26	0.28
Upland cotton	\$/lb.	0.089	0.086	0.083	0.079	0.074	0.067	0.063	0.058	0.053	0.07
Rice	\$/cwt	1.13	0.93	0.90	0.78	0.71	0.59	0.56	0.51	0.45	0.73
Sorghum	\$/bu.	0.35	0.33	0.30	0.27	0.22	0.20	0.17	0.14	0.12	0.23
Barley	\$/bu.	0.18	0.15	0.12	0.14	0.12	0.11	0.10	0.09	0.08	0.12

\* Wheat, corn, soybeans, upland cotton, rice, sorghum, barley, oats, and sunflowers

\*\* Gross returns include program payments

**Table 2. Impacts of the Farm Security and Rural Investment Act of 2002 on the U.S. Dairy Sector**

	Units	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	02-11 avg.
(Changes on a calendar-year basis relative to a December 2001 baseline)												
Milk production	bil. lbs.	0.8	1.1	1.2	1.2	0.8	0.5	0.3	0.2	0.1	0.1	0.6
All-milk price	\$/cwt	-0.12	-0.22	-0.33	-0.41	-0.16	-0.17	-0.17	-0.13	-0.09	-0.06	-0.18
Gross returns*	\$/cwt	0.38	0.31	0.21	0.11	-0.16	-0.16	-0.17	-0.13	-0.09	-0.06	0.02

\* Gross returns include total program payments divided by total milk production

**Table 3. Impacts of the Farm Security and Rural Investment Act of 2002 on CCC Net Outlays**

	Units	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	02-11 total
(Changes on a fiscal-year basis relative to a March 2001 baseline)												
Title I (Commodities)	\$ bil.	3.62	4.61	7.67	7.43	6.05	5.15	4.01	4.19	3.71	3.23	49.66
Title II (Conservation)	\$ bil.	0.34	0.45	0.83	1.20	1.52	1.64	1.64	1.74	1.86	1.98	13.21
Titles I and II	\$ bil.	3.97	5.06	8.50	8.63	7.56	6.80	5.65	5.93	5.57	5.21	62.87

**Table 4. Impacts of the Farm Security and Rural Investment Act of 2002 on Net Farm Income**

	Units	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	02-11 avg.
(Changes on a calendar-year basis relative to a March 2001 baseline)												
Title I (Commodities)	\$ bil.	4.57	6.11	5.47	5.08	3.99	2.61	2.95	2.72	2.41	2.12	3.80
Title II (Conservation)	\$ bil.	0.09	0.28	0.50	0.71	0.89	0.92	0.86	0.87	0.90	0.93	0.70
Titles I and II	\$ bil.	4.66	6.39	5.97	5.79	4.88	3.53	3.81	3.59	3.31	3.05	4.50

**Table 5. Comparison of Crop Payments:  
Historical, Projected FAIR Act and FSRIA  
(Annual Averages, Thousand Dollars)**

	<b>History 98-00 Crops</b>	<b>FAIR Act 2002 Crop</b>	<b>FSRIA 2002 Crop</b>	<b>Change from FAIR</b>	<b>FAIR Act 02-07 Crops</b>	<b>FSRIA 02-07 Crops</b>	<b>Change from FAIR</b>
AL	110,376	46,925	95,472	48,547	42,307	85,825	43,518
AK	263	83	135	52	83	142	59
AZ	117,953	50,010	139,669	89,659	46,219	128,240	82,021
AR	811,370	567,921	811,113	243,192	484,659	684,582	199,922
CA	530,775	319,844	565,830	245,987	287,852	500,509	212,657
CO	248,966	117,188	234,430	117,242	100,848	192,179	91,331
CT	2,831	1,531	2,781	1,250	1,287	2,321	1,034
DE	19,024	13,747	25,072	11,325	10,718	20,498	9,780
FL	21,604	10,150	20,916	10,766	9,375	19,049	9,674
GA	237,443	99,784	221,223	121,439	90,148	200,098	109,950
ID	181,147	85,956	176,734	90,778	75,553	142,965	67,412
IL	1,548,884	1,055,133	1,610,541	555,408	843,969	1,330,734	486,765
IN	748,542	510,114	786,568	276,454	408,925	652,038	243,113
IA	1,718,027	1,154,812	1,704,048	549,236	929,615	1,415,614	485,999
KS	1,052,347	524,289	1,039,564	515,275	441,884	844,016	402,132
KY	175,524	104,458	172,247	67,788	85,170	141,883	56,713
LA	364,270	206,223	347,058	140,836	182,456	304,144	121,688
ME	3,902	2,475	4,584	2,108	1,944	3,778	1,834
MD	59,484	40,540	70,040	29,500	31,808	56,796	24,988
MA	1,758	934	1,697	763	790	1,424	634
MI	296,223	187,163	285,925	98,762	151,732	236,338	84,606
MN	1,135,303	766,073	1,160,867	394,794	607,441	942,567	335,126
MS	397,293	211,101	368,476	157,375	183,386	323,602	140,216
MO	572,962	381,413	574,267	192,854	308,704	475,416	166,712
MT	297,660	129,238	266,327	137,088	116,237	218,262	102,025
NE	1,158,488	674,634	1,124,702	450,068	557,807	938,043	380,236
NV	1,994	1,021	2,063	1,042	954	1,803	848
NH	1,476	806	1,440	634	658	1,172	514
NJ	8,675	5,725	10,616	4,891	4,555	8,891	4,336
NM	51,366	22,795	45,406	22,611	20,246	39,051	18,804
NY	73,269	35,925	71,504	35,579	31,359	61,989	30,630
NC	216,734	114,441	216,635	102,194	95,716	185,788	90,072
ND	731,210	403,415	676,488	273,073	334,934	536,269	201,336
OH	534,530	369,324	567,561	198,237	292,408	463,077	170,670
OK	333,039	136,121	294,900	158,779	123,627	246,081	122,454
OR	84,030	35,389	74,660	39,271	31,803	60,705	28,902
PA	62,103	35,066	97,524	62,457	29,564	86,651	57,088
RI	92	49	89	40	41	75	34
SC	81,037	39,153	73,697	34,544	34,275	64,788	30,513
SD	582,180	391,814	605,878	214,064	310,215	487,005	176,790
TN	182,878	96,431	172,497	76,066	80,649	147,042	66,393
TX	1,261,042	569,687	1,151,864	582,177	512,215	1,011,791	499,577
UT	18,361	8,363	16,917	8,554	7,391	14,060	6,669
VT	4,936	2,721	4,831	2,110	2,232	3,956	1,723
VA	70,673	40,902	72,040	31,138	33,615	60,094	26,479
WA	222,744	92,240	199,026	106,786	81,362	158,729	77,367
WV	5,259	2,707	4,503	1,796	2,356	3,894	1,538
WI	350,957	206,865	338,486	131,620	171,967	286,521	114,554
WY	20,973	10,518	20,579	10,061	9,400	17,418	8,017
US	16,711,976	9,883,218	16,529,488	6,646,270	8,212,457	13,807,912	5,595,455

\* Includes payments to feed grains, oilseeds, wheat, rice and cotton. Does not include peanuts, dry peas, lentils, chickpeas, wool, mohair, or honey.

**Table 6. FAPRI Analysis of the Change in Average Milk Revenue Under FSRIA (12/1/2001-9/30/2005)**

(Revenue change includes both milk price and direct payment effects)

Alabama *	0.42
Alaska *	0.44
Arizona	-0.15
Arkansas *	0.42
California	-0.09
Colorado	0.02
Connecticut *	0.44
Delaware *	0.44
Florida	-0.09
Georgia	0.27
Hawaii *	0.44
Idaho	-0.02
Illinois	0.56
Indiana	0.51
Iowa	0.55
Kansas *	0.46
Kentucky	0.58
Louisiana *	0.42
Maine *	0.44
Maryland	0.48
Massachusetts *	0.44
Michigan	0.37
Minnesota	0.56
Mississippi *	0.42
Missouri	0.57
Montana *	0.45
Nebraska *	0.46
Nevada *	0.45
New Hampshire *	0.44
New Jersey *	0.44
New Mexico	-0.17
New York	0.44
North Carolina	0.34
North Dakota *	0.49
Ohio	0.53
Oklahoma	0.41
Oregon	0.19
Pennsylvania	0.55
Rhode Island *	0.44
South Carolina *	0.41
South Dakota	0.43
Tennessee	0.51
Texas	0.18
Utah	0.28
Vermont	0.43
Virginia	0.49
Washington	0.02
West Virginia *	0.43
Wisconsin	0.56
Wyoming *	0.45
United States	0.27
Change in Class III Price	-0.17
Change in Class IV Price	-0.28
Direct Payment Rate on Eligible Production	0.89

\* - Estimate based on the USDA's distribution of dairy cows in "other states"