



# The 1995 Farm Bill

*A Special Series of Alternative Policy Analyses*

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## The National Farmers Union Proposal

By Daryll E. Ray, Daniel G.  
De La Torre Ugarte, and Michael R. Dicks<sup>1,2</sup>

Among the agricultural policy options which have surfaced in 1995 are alternatives which would replace the target prices and non-recourse loans of the current policy structure with a marketing loan program. This paper analyzes such an alternative, using specifications for marketing loan rates, maximum loan caps, and conserving-use land diversions developed by the National Farmers Union (NFU).

The NFU proposal would replace crop-specific farm bases with a whole-farm base, and a conserving-use program would replace Acreage Reduction Programs (ARP). Conserving-use would be based on planted acreage for program crops which include soybeans. A natural consequence of the proposal is the elimination of the 0/50/85 program.

The NFU proposal's centerpiece is a marketing loan program whose loan rates would be set at 115 percent of the average market prices during the previous five years (with the lowest and highest prices omitted from the moving average). The combined value of marketing loans on all program crops could not exceed \$175,000 for each farmer. The crops under this policy regime include but would not be limited to corn, grain sorghum, oats, barley, wheat, soybeans, cotton, and rice.

This marketing loan program has similarities with the nonrecourse loan program but also distinct differences. As with the nonrecourse

### Highlights

Compared with extending the 1990 farm legislation, the NFU proposal would over 1996-2000 result in:

- Higher prices for the eight program crops, with the exceptions of soybeans and cotton.
- Early declines but overall slightly higher net returns to the eight crops and slightly lower net farm income.
- \$5 billion in federal budget savings from lower payments to farmers and elimination of the 0/50/85 program.

loan program, farmers apply for marketing loans at their local Farm Services Agency (FSA) office using their harvested crop as collateral. But when the marketing loan comes due, the loan would be revalued if the market price is lower than the marketing loan rate. Thus, the farmer would repay the loan at the original rate or the lower, revalued rate if market prices fall below the loan rate.

Also in contrast to the nonrecourse program, marketing loans under the NFU proposal must be repaid with cash. Under the nonrecourse loan program, farmers can repay their loan fully by delivering the commodity to FSA. The use of

<sup>1</sup> Blasingame Chair of Excellence in Agricultural Policy and Research Assistant Professor of Agricultural Economics, both of The University of Tennessee; and Associate Professor of Agricultural Economics, Oklahoma State University.

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a marketing loan rate means that commodity prices are not federally supported, and government stock accumulation (the means to provide price support) does not occur. Thus, prices under such a marketing loan scheme are determined more fully by market forces.

POLYSYS, the analytical system employed in these analyses, anchors its analysis to a *base-line*, or expected situation. Thus, these scenarios properly are analyzed as changes away from this baseline, which for this analysis is provided by the Congressional Budget Office (CBO). Among the assumptions in this baseline are the continued use of Acreage Reduction Programs (ARPs) based on continued current policy and a Conservation Reserve Program (CRP) covering slightly more than 20 million acres. For more discussion of the broader issues surrounding the analysis, the methodology, and modeling assumptions, see this farm bill series' first issue.

The marketing loan rates used in this analysis are calculated as described above, using the CBO baseline price for 1995. These loan rates for six of the crops simulated in this analysis are listed in table 1. The results presented here are sensitive to the 1995 price used in the analysis; as it happens, the baseline 1995 price could be significantly lower than actual 1995 crop prices.

Because marketing loan rates are based solely on historical prices and loan deficiency payments are influenced by current prices, safeguards may need to be considered to avoid excess government exposure or insufficient income support. Such safeguards may include changes in the loan limit, the maximum annual change in loan rate, and limits on loan deficiency payments or payment rates.

### Analytical Results

**Harvested Acreage.** Total harvested acreage for the eight crops modeled for the analysis (corn, wheat, soybeans, cotton, oats, barley, grain sorghum, and rice) falls 2.4 million acres – only 1 percent below the baseline harvested acreage (236.1 million acres) at the simulation's end in 2000 (table 2). The loss stems from a 2.7-million-acre decline in wheat acreage, which is

offset by a slight gain in soybean harvested acreage. These changes occur with a conserving-use program under which the set-aside acreage for soybeans and wheat are significantly different from the baseline:

YEAR	CONSERVING USE PERCENTAGE		
	WHEAT	SOYBEANS	CORN
1996	0.0	7.5	5.0
1997	0.0	7.5	5.0
1998	5.0	7.5	2.5
1999	0.0	5.0	5.0
2000	5.0	5.0	5.0

**Crop Prices.** The increase in soybeans acreage, as might be expected, depresses soybean prices (figure 1, table 1). The season average price for soybeans in 2000 is \$5.55 per bushel – 13 cents lower than the baseline value. Over the 1995-2000 simulation period, soybean prices average 20 cents per bushel below the baseline. Cotton prices also trend slightly lower than the baseline.

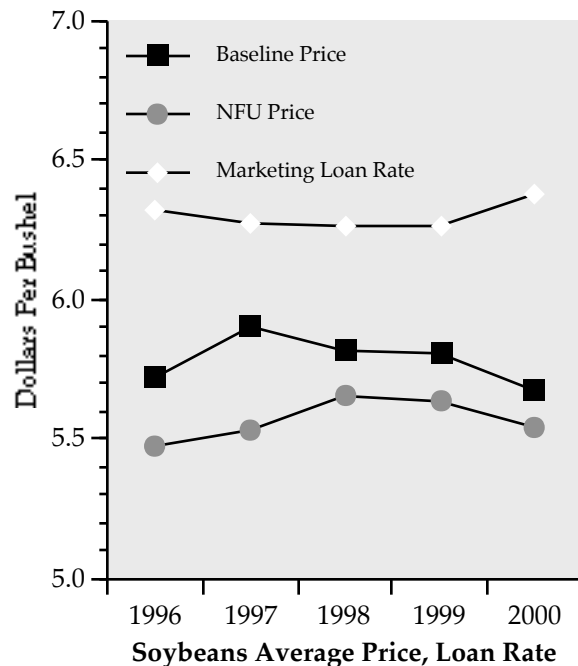


FIGURE 1  
Gains in Soybean Harvested Acreage Cause Soybean Prices to Fall

Wheat, corn, and rice, on the other hand, make price gains of varying strengths. Wheat prices end 2000 at 24 cents per bushel higher than their baseline value (\$3.21 per bushel) and average 11 cents per bushel above the baseline over 1995-2000 (figure 2).

Corn prices in 2000 are 7 cents per bushel higher than the baseline value of \$2.22 per bushel (figure 3). On average, corn prices are 12 cents per bushel higher than the baseline.

With rice, net returns without the deficiency payments program are lower than other crops in many rice-growing Agricultural Statistical Districts (ASD); as a result, acreage shifts away from rice faster than occurs for other commodities grown in the same ASD. Thus, the slight acreage and production declines experienced in the simulation causes prices to increase. The rice season average price reaches \$8.71 per hundredweight by 2000 – \$1.11 per hundredweight above the baseline (figure 4). Rice prices average 95 cents above the baseline throughout the simulation period.

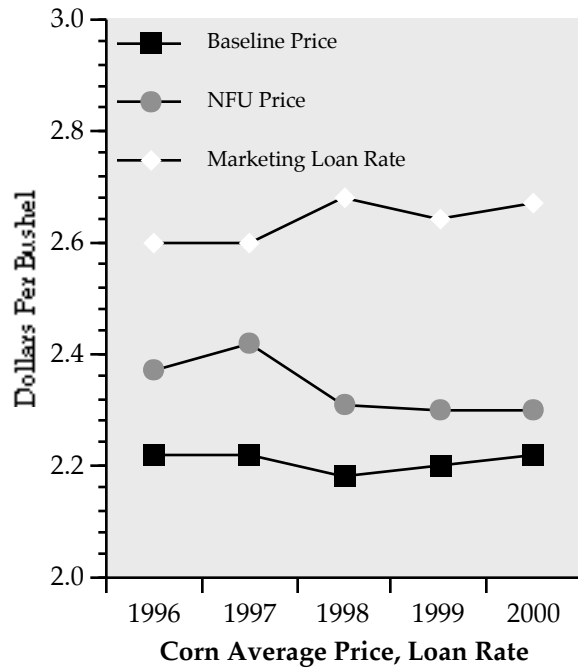


FIGURE 3  
Corn Prices Average 12 Cents Per Bushel Above Baseline

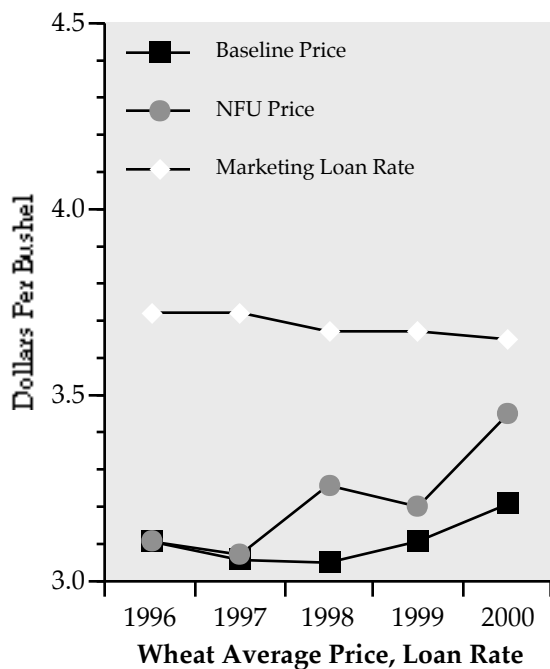


FIGURE 2  
Wheat Prices Average 11 Cents Per Bushel Above the Baseline

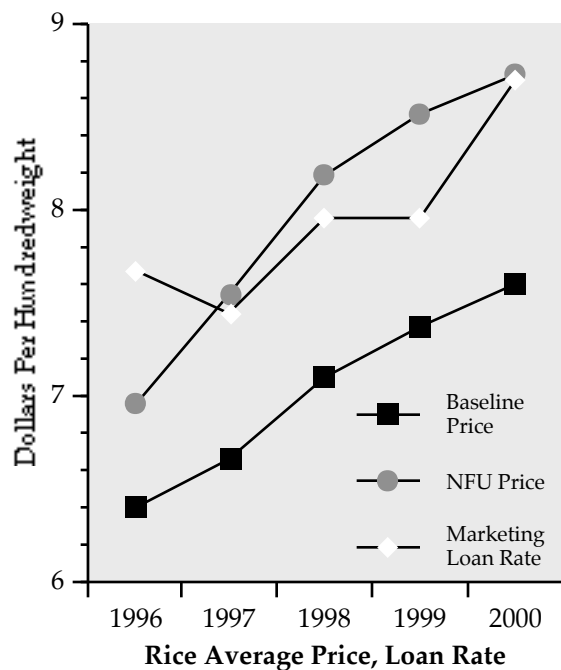


FIGURE 4  
Slight Acreage and Production Declines Cause Rice Prices to Rise Substantially

**Marketing Loans and Loan Deficiency Payments.** Loan deficiency payments are determined by the difference between the season average price and the marketing loan rate, multiplied by the percent of the commodity on loan (table 1). In years where the loan rate is higher than the average price, payments will be higher, and vice versa. On average, loan deficiency payments to the eight crops annually are \$520 million lower than baseline deficiency payments. On an accumulated basis over the entire simulation period, payments are \$2.6 billion (8.5 percent) lower than baseline deficiency payments.

In performing the simulations, the analysis assumed that in each Agricultural Statistical District (ASD), farmers would put under loan first the crop which has the highest loan deficiency payment rate per acre. Then, farmers would place on loan those crops with the second-highest rate, the third-highest rate, etc. until the \$175,000 loan cap is reached. Thus, the analysis assumes that farmers in each ASD take full advantage of the marketing loan program. Conducting the analysis in this manner results in the highest possible deficiency payment total for each ASD.

For corn, soybeans, wheat, and cotton, the loan rates are higher than prices throughout the simulation period. Nearly all corn acres are covered by marketing loans during the simulation period, and the loan rate averages 30 cents per bushel above the average price (figure 3). Thus, corn payments average \$2.8 billion and end the simulation in 2000 at \$3.2 billion.

Wheat loan rates average 47 cents per bushel above the average price (figure 2), soybeans rates average 72 cents per bushel above the price (figure 1), and cotton averages 13 cents above the price (figure 5). However, because a smaller share of acres are covered by marketing loans for these crops, their associated loan deficiency payments are lower. Wheat payments average \$930 million, soybeans payments average, \$920 million, and cotton averages \$820 million.

For rice and barley, loan rates drop substantially below the price, and their associated payments reach zero by 1998 for rice (figure 4) and by 1997 for barley.

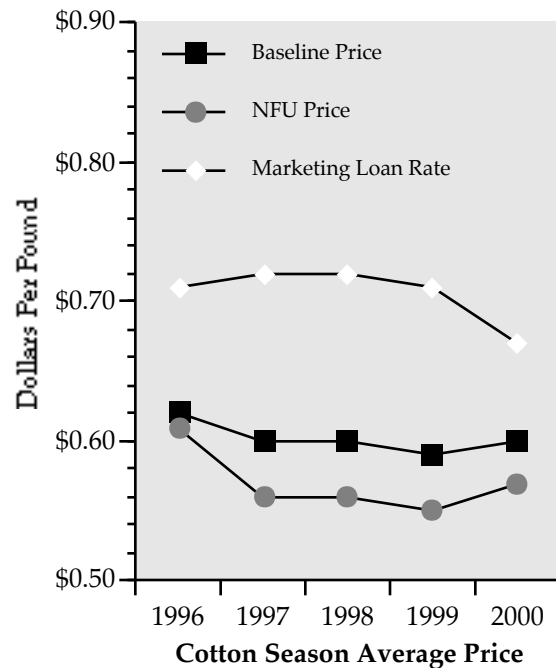
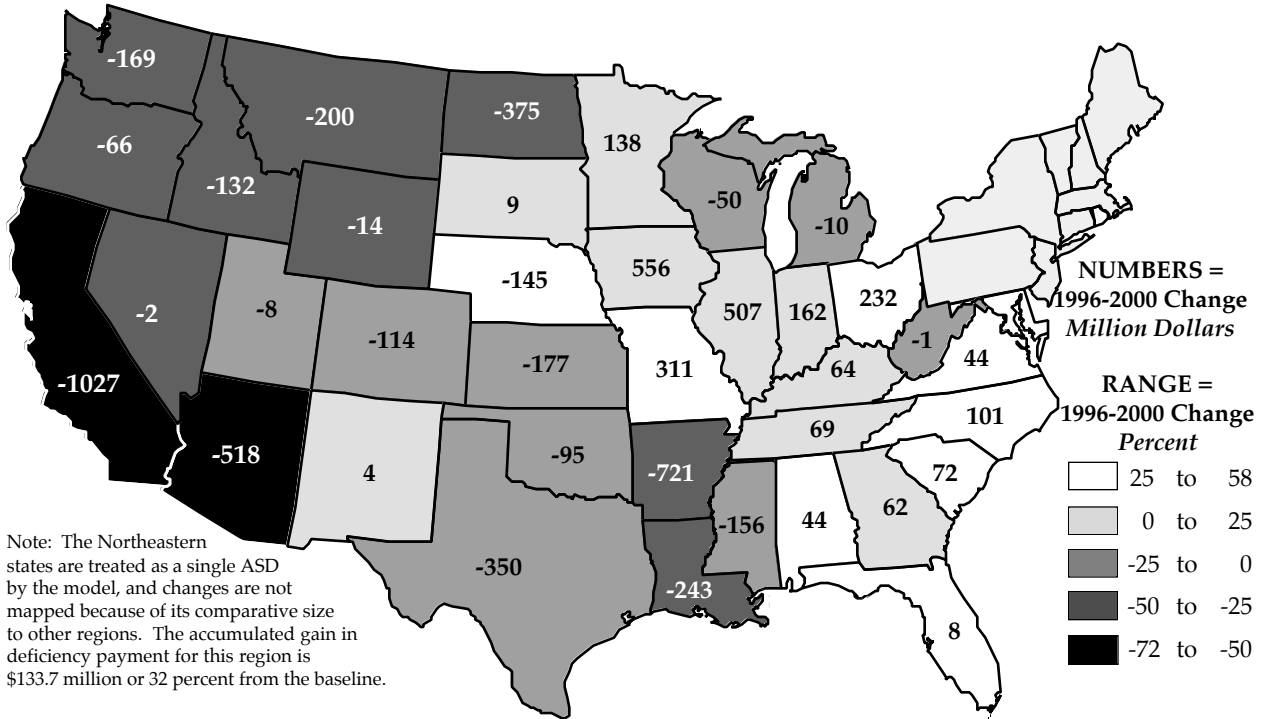


FIGURE 5  
Cotton Marketing Loan Rates Average 13  
Cents per Pound Above the Average Price

Geographically, the West generally suffers the greatest loss in payments, compared with the baseline's deficiency payments (figure 6). This loss stems from declines in payments to wheat farmers. Wheat payments to twelve states – including California, Washington, Colorado, and Montana – fall an accumulated \$100 million or more below baseline payments over 1995-2000. In other states suffering such losses, however, gains in payments to soybeans more than make up for losses to wheat. The Western states, however, do not grow soybeans. California's losses are exacerbated by lower payments to cotton and rice. Arizona's losses are due primarily to cotton losses.

**Cash Receipts.** Total cash receipts for the eight crops modeled rise an accumulated \$1.8 billion (0.8 percent) above the baseline over the entire 1995-2000 period (table 3). Modest gains in receipts are made for corn and wheat, while cotton and soybeans experience somewhat lower receipts compared with the baseline.

Corn sees the largest gain in receipts due to the increase in season average price. Corn



**FIGURE 6**  
Accumulated Change in 1996-2000 Loan Deficiency Payments From the Baseline, by State

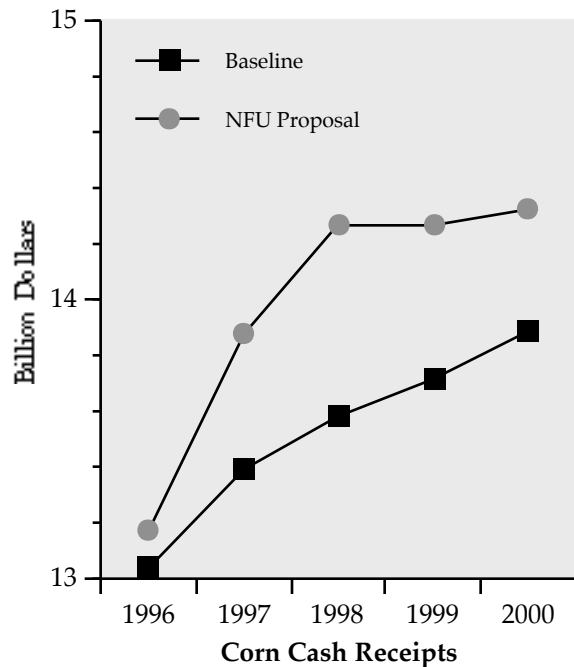
receipts average \$440 million above the baseline in 1999-2000. The accumulated change in corn payments is \$2.2 billion (3.3 percent) over the entire 1995-2000 period (figure 7).

Soybean receipts, however, average \$210 million below the baseline for an accumulated 1996-2000 loss of \$1.1 billion (1.7 percent) from the baseline.

**Value of Exports.** The combined export value of the eight crops trend less than 1 percent on average above the baseline during 1995-2000, reaching an accumulated gain of \$720 million (0.9 percent) by the simulation's end (table 4). Corn and wheat make slight gains; soybeans and cotton suffer slight losses in value.

**Net Returns to the Eight Crops.** Net returns to the eight crops modeled for this analysis dip slightly in 1997 but rise slightly above baseline returns during the remainder of the simulation period. Returns average \$390 million higher over the 1995-2000 period for an accumulated \$2.0 billion (2.0 percent) increase from the baseline.

Figure 8 shows that geographically, the change in returns at the ASD level reflects the



**FIGURE 7**  
Corn Makes the Strongest Gains in Cash Receipts

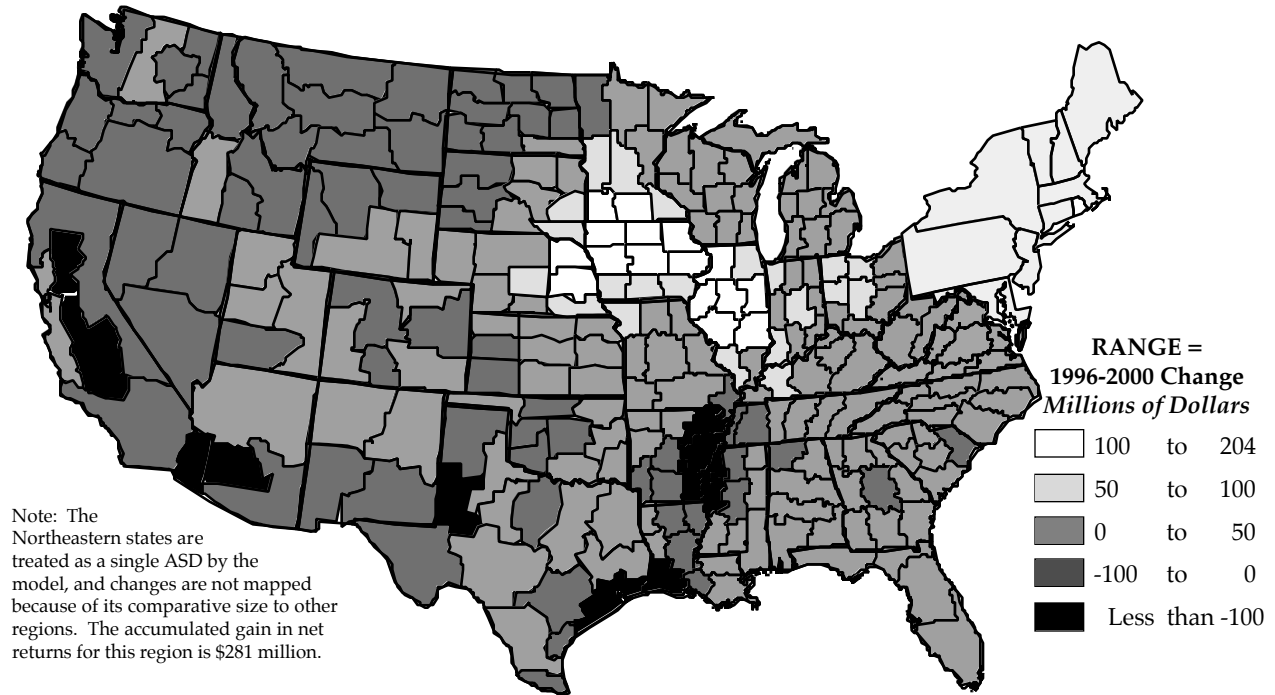
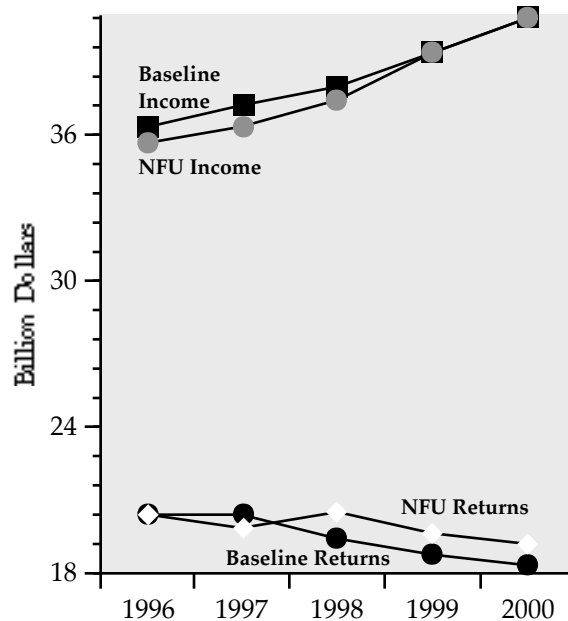


FIGURE 8  
Accumulated 1996-2000 Change in Net Returns to the Eight Major Crops by ASD

change in payments noted in figure 6, as well as the previously noted crop price increases.

**Net Farm Income.** Income to the entire U.S. agricultural sector dips below the baseline an average \$610 million during the simulation's first three years but recovers the lost ground to end the simulation almost exactly at the baseline level in 1999-2000 (figure 9). Income closes out the simulation at \$40.6 billion, and the accumulated loss in income from the baseline over the entire period is \$2.2 billion (1.1 percent).

**Budget Savings.** The combination of policy instruments proposed by NFU reduces the federal budget by lowering payments to farmers and ending 0/50/85. The resulting savings are \$5 billion from the the baseline during the entire 1996-2000 period. Most of these savings occur as a result of higher commodity prices, which cause net returns to the eight crops to hold near baseline levels (with variation across crops). Thus, savings are \$2.8 billion more than the \$2.2 billion which the entire agricultural sector loses in net income over the simulation period.



Net Farm Income and Returns to Eight Crops

FIGURE 9  
Net Income for the Entire Agricultural Sector  
Recaptures the Baseline After Early Declines

Table 1. Effective Target Price, Crop Prices, and Marketing Loan Rates, Coverage, and Payments

Year <sup>a</sup>	Effective Target Price	Season Average Price	Mkting Loan Rate	Loan Coverage Rate	Loan De-ficiency Payment	Effective Target Price	Season Average Price	Mkting Loan Rate	Loan Coverage Rate	Loan De-ficiency Payment
<b>Corn</b>						<b>Wheat</b>				
	-----Dollars Per Bushel-----			Percent	Bil \$	-----Dollars Per Bushel-----			Percent	Bil \$
1996	2.57	2.36	2.60	67.1	2.56	3.78	3.11	3.72	78.9	1.15
1997	2.57	2.42	2.60	63.2	1.18	3.76	3.08	3.72	86.4	1.27
1998	2.56	2.30	2.68	98.0	1.98	3.75	3.26	3.67	69.9	0.81
1999	2.55	2.29	2.63	98.3	3.34	3.76	3.20	3.67	79.1	1.02
2000	2.55	2.29	2.66	98.3	3.23	3.78	3.45	3.65	61.3	0.40
<b>Soybeans</b>						<b>Cotton</b>				
	-----Dollars Per Bushel-----			Percent	Bil \$	-----Dollars Per Pound-----			Percent	Bil \$
1996	5.72	5.47	6.32	86.8	0.66	0.70	0.61	0.70	65.2	0.54
1997	5.90	5.54	6.28	92.7	1.62	0.68	0.56	0.68	64.7	0.77
1998	5.82	5.70	6.27	40.8	1.14	0.68	0.56	0.68	65.1	0.98
1999	5.81	5.67	6.27	36.9	0.51	0.68	0.55	0.68	65.6	0.96
2000	5.68	5.55	6.40	47.2	0.67	0.68	0.57	0.68	66.3	0.88
<b>Rice</b>						<b>Barley</b>				
	Dollars Per Hundredweight			Percent	Bil \$	-----Dollars Per Bushel-----			Percent	Bil \$
1996	9.42	6.95	7.67	70.6	0.36	2.30	2.19	2.12	0.0	0.07
1997	9.56	7.54	7.43	0.0	0.05	2.30	2.24	2.11	0.0	0.00
1998	9.68	8.15	7.95	0.0	0.00	2.30	2.26	2.18	0.0	0.00
1999	9.75	8.49	7.95	0.0	0.00	2.31	2.28	2.14	0.0	0.00
2000	9.81	8.71	8.68	0.0	0.00	2.31	2.30	2.17	0.0	0.00

<sup>a</sup>All but loan deficiency payments are reported by crop year. Loan deficiency payments are reported by calendar year.

Table 2. Harvested Acreage

Crop Year	Corn		Wheat		Soybeans		Cotton		Rice		Total 8 Crops <sup>a</sup>	
	Base line	NFU	Base line	NFU	Base line	NFU	Base line	NFU	Base line	NFU	Base line	NFU
	-----Million Acres-----											
1996	70.7	68.1	62.3	62.6	58.1	60.0	14.5	14.7	3.1	2.9	229.9	229.6
1997	71.0	68.5	62.9	63.1	58.4	60.4	13.3	14.1	3.1	2.9	230.4	230.8
1998	72.2	71.3	64.0	61.4	58.9	58.4	13.0	13.3	3.1	3.0	233.9	230.2
1999	71.2	70.6	64.5	65.0	59.7	60.6	13.0	13.4	3.1	3.0	234.3	235.7
2000	71.3	70.7	65.6	62.9	60.0	60.7	13.2	13.2	3.1	3.0	236.1	233.8

<sup>a</sup>The eight crops modeled in this analysis are corn, wheat, soybeans, cotton, rice, grain sorghum, barley and oats.

Table 3. Crop Cash Receipts

Crop Year	Corn		Wheat		Soybeans		Cotton		Total 8 Crops <sup>a</sup>	
	Baseline	NFU	Baseline	NFU	Baseline	NFU	Baseline	NFU	Baseline	NFU
	-----Billion Dollars-----									
1996	13.04	13.17	7.22	7.24	11.71	11.65	6.56	6.54	41.87	41.97
1997	13.39	13.86	7.20	7.25	12.60	12.38	6.02	5.95	42.67	43.00
1998	13.58	14.25	7.33	7.51	12.93	12.57	5.78	5.59	43.21	43.66
1999	13.71	14.25	7.59	7.84	12.99	12.72	5.74	5.50	43.73	44.19
2000	13.89	14.29	7.96	8.20	12.97	12.83	5.85	5.63	44.47	44.93
<i>Accumulated Shift</i>		2.20		0.72		-1.05		-0.75		1.79

Table 4. Export Value

Crop Year	Corn		Wheat		Soybeans		Cotton		Total Eight Crops	
	Baseline	NFU	Baseline	NFU	Baseline	NFU	Baseline	NFU	Baseline	NFU
-----Billion Dollars-----										
1996	3.94	4.08	3.72	3.73	4.38	4.29	2.17	2.17	15.35	15.43
1997	4.05	4.19	3.77	3.81	4.43	4.36	1.99	1.98	15.42	15.54
1998	4.11	4.13	3.90	4.09	4.40	4.46	1.96	1.95	15.61	15.88
1999	4.28	4.28	4.11	4.15	4.48	4.51	1.95	1.95	16.08	16.15
2000	4.47	4.47	4.38	4.54	4.43	4.45	1.99	1.98	16.54	16.72
<i>Accumulated Shift</i>		0.30		0.44		-0.05		-0.03		0.72

### For More Information...

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Agricultural Policy Analysis Center  
The University of Tennessee  
310 Morgan Hall  
Knoxville, TN 37901-1071  
(615) 974-7407  
*Email:* dray@apac.ag.utk.edu

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Great Plains Agricultural Policy Center  
Oklahoma State University  
314 Ag Hall  
Stillwater, OK 74078-0505  
(405) 744-6163  
*Email:* mdicks@okway.okstate.edu



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