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Higher Net Farm Income Under the New Farm Bill

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The U.S. Congress passed and President George W. Bush signed the Farm Security and Rural Investment Act (FSRIA) of 2002. The legislation incorporates the additional emergency federal funding that agriculture received from 1998 through 2001 and provides the continuation of planting flexibility, fixed payments, and a commodity marketing loan program. FSRIA includes a counter-cyclical feature that is tied to market prices but not to current production.

	Loan Rate		Direct Payment	Target Price	
	2002-2003	2004-2007	2002-2007	2002-2003	2004-2007
	-----\$-----				
Corn (bu)	1.98	1.95	0.28	2.60	2.63
Barley (bu)	1.88	1.85	0.24	2.21	2.24
Wheat (bu)	2.80	2.75	0.52	3.86	3.92
Soybeans (bu)	5.00	5.00	0.44	5.80	5.80
Minor Oilseeds (cwt)	9.60	9.30	0.80	9.80	10.10

Table 1 shows the national loan rates, direct payments, and target prices for the major commodities grown in North Dakota. Loan rates for corn increased from \$1.89 under the FAIR Act to \$1.98. Wheat loan rates increased \$0.22, from \$2.58 to \$2.80. Loan rates for soybeans and minor oilseeds also increased. The bill allows producers to retain their current base acres and add oilseed acres, or it allows them to update base acres using 1998-2001 acres planted and prevented planted acres for all covered commodities. Direct payments for each crop are calculated by applying base acres and yields to the direct payment rate for each crop. Counter-cyclical payments are calculated by subtracting direct payment rates and the higher of either the loan rate or market price from the target price. That payment rate is multiplied by the payment base yield times base acres.

The North Dakota Representative Farm Model was used to compare the FSRIA to a continuation of the FAIR Act of 1996 in order to estimate the differences in benefits to North Dakota producers. Table 2 shows the net farm income for North Dakota representative farms under the new farm bill and the continuation of the FAIR Act. All farms have higher net farm income under FSRIA than under the FAIR Act. However, net farm income falls throughout the forecast period because yield increases do not cover increases in operating expenses. The forecasted market prices do not reach target price levels, so there is little or no increase in crop returns throughout the 10-year forecasting period. The 10-year average net farm income under the FSRIA is projected to be 15.3% higher for the high-profit farms, 29.3% higher for the average-profit farms, and 151.9% higher for the low-profit farms than under the FAIR Act. Net farm income for the size representative farms was also higher under the new farm bill. The 10-year average net farm income is projected to be 18.9% higher for the large-size farms, 22.2% higher for the medium-size farms, and 27.2% higher for the small-size farms than under the FAIR Act.

However, payments under the FSRIA would be lower than in the past if the emergency funding legislated in 1998-2001 is included with the FAIR Act. The Food and Agricultural Policy and Research Institute (FAPRI) estimated that

North Dakota would receive \$403 million under a continuation of the FAIR act in 2002, compared to \$676 million under the FSRIA. However, during the 1998-2001 crop years, North Dakota received an average of \$731 million under the FAIR Act plus emergency legislation. The FSRIA does increase direct payments to producers, provide them with a counter-cyclical safety net, and provide for planting flexibility.

Concerns include an expected increase in land value and cash rents resulting from the new farm bill. Our study indicates that land value and cash rent would increase 3% with increased farm income. This would make North Dakota's agricultural production less competitive compared to other exporting countries. In addition, expected increases in agricultural production in Brazil, Ukraine, and Russia may lower prices of commodities below the FAPRI and CAPTS estimates. Lower commodity prices would substantially increase government spending on agriculture.

Table 2. North Dakota Net Farm Income Under FSRIA and the Continuation of the FAIR Act

	Profit Farms			Size Farms		
	High	FSRIA Average	Low	High	FAIR Average	Low
	-----\$-----					
2002	127,515	51,983	14,525	113,859	42,881	7,282
2003	127,918	53,595	18,620	112,999	43,367	9,540
2004	129,086	54,024	19,441	109,877	40,934	7,815
2005	127,862	52,372	19,451	109,985	40,329	8,827
2006	121,182	47,853	16,337	103,793	36,137	5,977
2007	115,802	45,964	15,387	101,282	36,139	6,547
2008	111,779	43,800	14,308	95,107	32,566	4,350
2009	108,551	41,907	13,612	92,219	30,904	3,848
2010	105,253	38,292	13,217	90,197	28,185	4,168
2011	98,226	33,449	8,324	88,262	26,888	2,471
10 yr	117,317	46,324	15,322	101,758	35,833	6,083
	-----\$-----					
	Size Farms			Size Farms		
	Large	FSRIA Medium	Small	Large	FAIR Medium	Small
	-----\$-----					
2002	107,580	45,658	17,878	91,214	37,909	14,511
2003	101,868	43,801	17,586	87,051	36,800	14,467
2004	98,249	41,901	16,804	79,919	33,105	12,842
2005	92,721	39,052	14,975	77,316	31,748	11,693
2006	88,361	36,738	13,742	74,415	30,142	10,757
2007	84,348	34,266	12,519	70,724	27,795	9,604
2008	81,876	33,350	12,037	68,616	27,050	9,171
2009	81,517	33,303	12,203	68,564	27,135	9,392
2010	81,415	32,928	12,431	69,109	27,031	9,714
2011	81,872	33,573	13,021	69,582	27,713	10,391
10yr	89,981	37,457	14,320	75,651	30,643	11,254

Better Prices for Year 2002

Mina Kim and Hyun Jin

Grain prices have rebounded in the early months of year 2002, compared to prices during the same months in 2000 and 2001. Exceptions to this trend are the prices of hard red spring wheat and of soybeans (Figures 2 and 6). Soybean prices were weak in January 2002 and gradually increased after March; however, while April and May prices were higher than those in year 2001, they were still lower than those in 2000 (Figure 2). The 2002 price of durum wheat is higher than those in 2000 and 2001 (Figure 1). Barley and corn prices in 2002 are also higher than those in 2000 and 2001 (Figures 3 and 4). The price for malting barley is higher than that in 2001, but lower than in 2000 (Figure 5).

There are three discernable features at the root of these figures: seasonality, lowered prices in recent years, and the increasing cash prices of 2002. Seasonality exists in the cash prices of each commodity. It is usually reflected in the price of grain because of the changes in market supply around time of harvest. Prices in the harvest season, mainly August and September, are lower than those in the other seasons.

Overall, grain prices in recent years are lower than the average prices during the years 1996 to 2001; this is mainly due to changes in grain stocks, the performance of U.S. grain exports, and the effect of regional trade agreements. Worldwide grain stocks plummeted in 1995-1996, substantially boosting grain prices during the marketing years of 1996 and 1997. The average grain prices from 1996 to 2001 incorporated this swell and were thus higher than the recent grain prices. Spurred by rising prices, the worldwide production of grain increased after the mid-1990's, and the change

in supply forced grain prices to decrease. This process has been aided by the performance of U.S. agriculture in international trade. Because of the strength of the U.S. dollar in recent years, U.S. exports have decreased. This, in turn, has acted as a force pushing grain prices lower relative to previous years.

However, grain prices in 2002 have rebounded from the bottom of this cycle. Cash prices are slightly higher now than in 2000 and 2001 because of the decreased average grain stocks. Durum and all other wheat stocks decreased in 2002 by 36% and 8%, respectively, from 2001, and stocks are at their lowest levels since 1997. Corn stocks declined by 24% from 2001 levels. Weather has also contributed to the rebounding prices. A period of dry weather during the early months of 2002 pushed back the grain seeding period by a few weeks. Thus, market participants expect a smaller harvest and higher grain prices in 2002.

In addition, attitudes in the importing countries regarding grain inventory have been changing. No importing country anticipates a sudden, catastrophic embargo from the major exporting countries, and so importers have diversified their sources of imports in order to avoid the risks inherent in relying on one trading partner. This change has also made importers devalue the importance of grain inventories. Thus, the responsibility for maintaining inventories has shifted from importing countries to exporting countries, causing a decrease in domestic grain prices.

Figure 1. North Dakota Durum Wheat Price

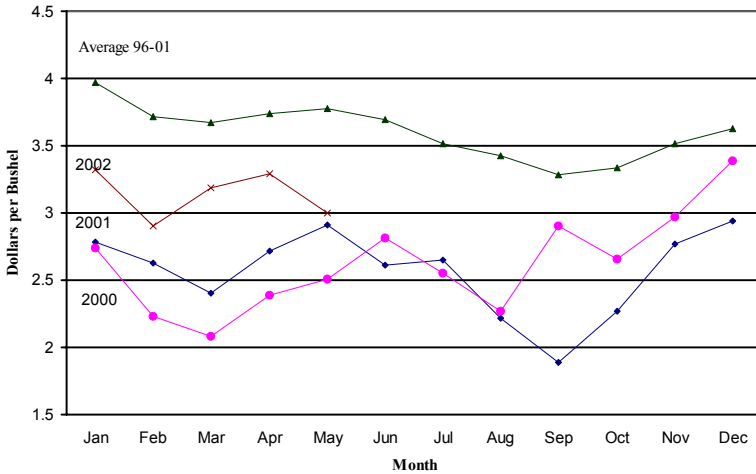


Figure 2. North Dakota Spring Wheat Price

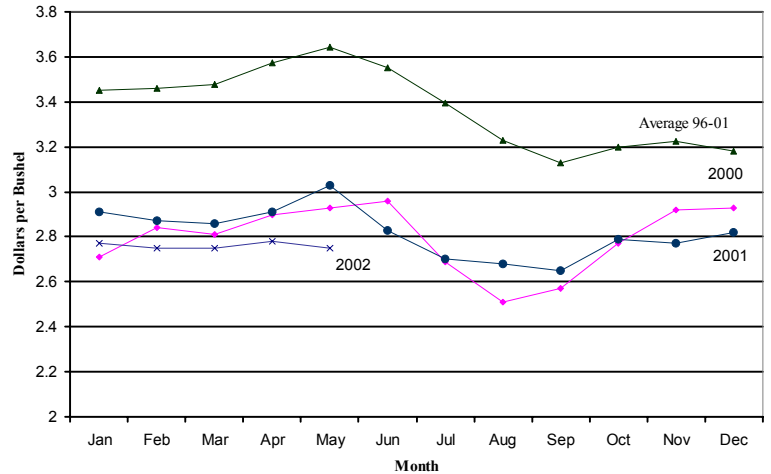


Figure 3. North Dakota Corn Price

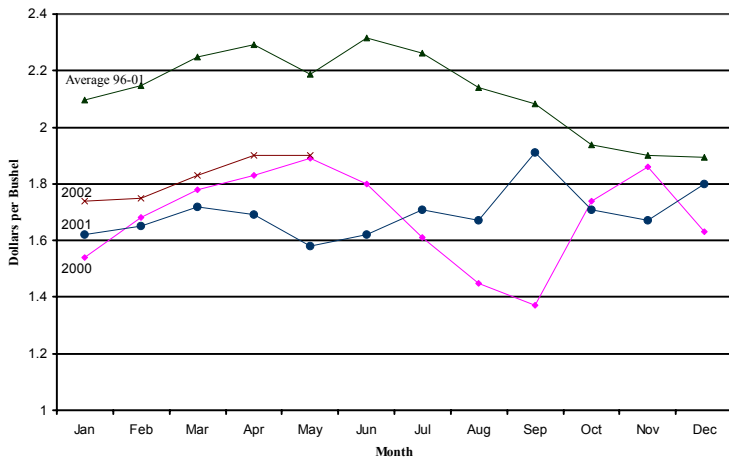


Figure 4. North Dakota Feed Barley Price

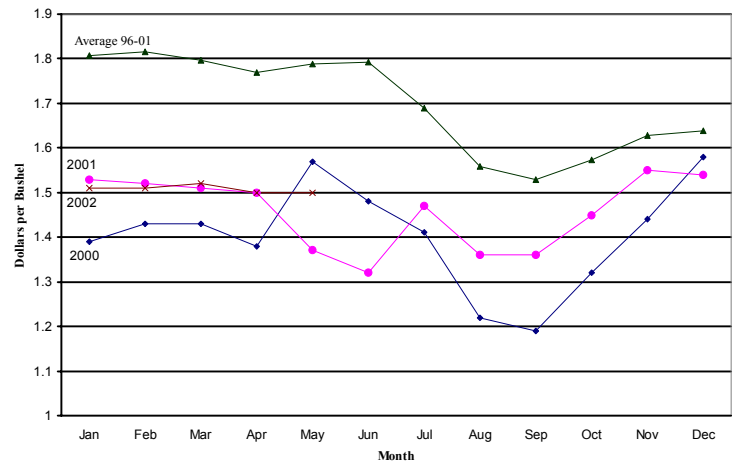


Figure 5. North Dakota Malting Barley Price

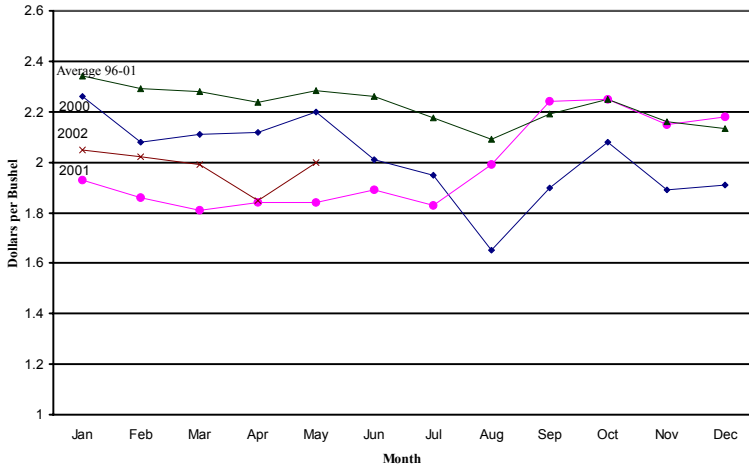
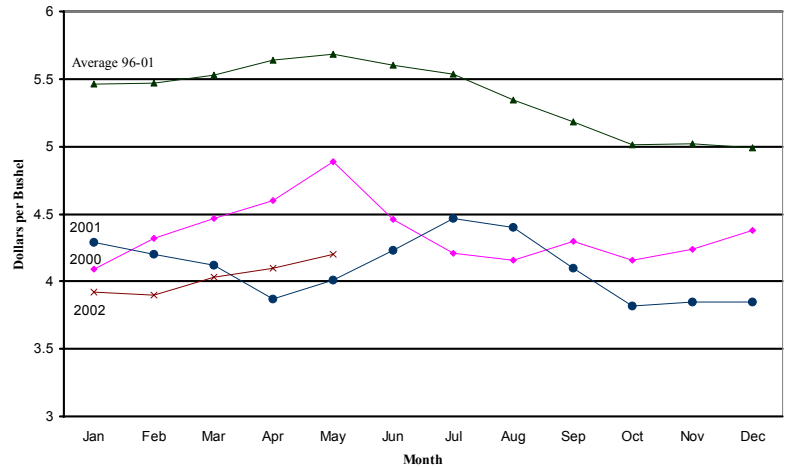


Figure 6. North Dakota Soybean Price



Does Exchange Rate Matter to Agricultural Bilateral Trade Between the United States and Canada?-Agribusiness & Applied Economics Report No. 466, by Mina Kim, Guedae Cho, and Won W. Koo

How Differently Do the Agricultural and Industrial Sectors Respond to Exchange Rate Fluctuation?-Agribusiness & Applied Economics Report No. 482, by Mina Kim and Won W. Koo

Offshore Commodity and Currency Hedging Strategy with Hedging Costs-Agribusiness & Applied Economics Report No. 483, by Hyun Jin and Won W. Koo

For more information on this research, please contact Beth Ambrosio, Center for Agricultural Policy and Trade Studies, NDSU at (701) 231-7334 or download upcoming publications from this website: <http://www.ag.ndsu.nodak.edu/capts/publication.htm>

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