Government Program Payments for Crop Cost-Return Budgets

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The Farm Security and Rural Investment Act of 2002 combines elements of the 1990 and 1996 Farm Bills in establishing farm policy through 2007. Marketing loans remain in place under the new farm bill and the direct, or fixed payments that were introduced in the 1996 Farm Bill continue. Marketing loans are available on actual production, and provide benefits when the local posted county price of a commodity is below that county's adjusted loan rate. Thus, expected benefits under the marketing program can be estimated with expected local market prices and need not be estimated separately.

Direct payments are determined according to the following formula for each crop: Direct Payment = Direct Payment Rate × Program Acreage Base × Direct Payment Yield × 85 percent. Thus, fixed payments are a function of the base acreage and payment yield decisions made at initial program sign-up.

In addition, a new system of counter-cyclical payments was added to the mix, resulting in a complex safety net. The counter-cyclical payments under the 2002 Farm Bill are similar to the target price/deficiency-payment system in place under the 1990 Farm Bill. Like direct payments, counter cyclical payments are tied to the base acreage and payment yield decisions made at initial program sign-up and are calculated according to the following formula for each crop: Counter-Cyclical Payment = Counter-Cyclical Payment Rate × Program Acreage Base × Counter-Cyclical Payment Yield × 85 percent. For each year of the new farm bill, the counter-cyclical payment rate for each crop is equal to the target price for that crop minus the direct payment rate minus the higher of the national average marketing year price or the national average loan rate. Thus, the counter-cyclical payment can vary each year, dependent on market prices.

Estimating direct payments per acre is a function of the legislated payment rates as well as the base acreage and payment yield decision made by the producer at sign-up in the first year of the new farm bill. Estimating counter-cyclical payments per acre is a function of the base acreage and payment yield decision too, but also depends on expected market prices over the life of the farm bill. As such, the choice of expected market prices is critical to determining expected government payments.

Using the loan rates, direct payment rates, and target prices as set in the farm bill (Table 1), expected government payments can be calculated under various market price scenarios. One scenario is the marketing year average prices determined from K-State models using futures market price quotes for coming months as an indicator of expected market prices for those months. Those price estimates, made as of August 27, 2003, are reported in Table 2.

The program payment values listed in the crop cost-return budgets in the Farm Management Guide series are based on an analysis of a set of Kansas Farm Management Association farms regarding program sign-up decisions. Direct and counter-cyclical payments were calculated on the estimated program acreage bases and payment yields for the farms in the analysis. Direct payments were estimated for the life of the 2002 Farm Bill, while counter-cyclical payments were estimated separately for each year through 2007.

The estimated direct payments are listed in the second column of Table 3 by Kansas Farm Management Association

Table 1. *Loan Rates, Direct Payment Rates, and Target Prices for Program Commodities*

Crop	Loan Rates		Direct (Fixed) Payment Rates	Target Prices	
	2002-2003	2004-2007	2002-2007	2002-2003	2004-2007
Corn (bu)	$1.98	$1.95	$0.28	$2.60	$2.63
Sorghum (bu)	$1.98	$1.95	$0.35	$2.54	$2.57
Barley (bu)	$1.88	$1.85	$0.24	$2.21	$2.24
Oats (bu)	$1.35	$1.33	$0.024	$1.40	$1.44
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 (lb)	$0.096	$0.093	$0.008	$0.098	$0.1010
Rice (cwt)	$6.50	$6.50	$2.35	$10.50	$10.50
Upland cotton (lb)	$0.5200	$0.5200	$0.0667	$0.7240	$0.7240

region and are designed to be used for yield level II in the cost-return budgets. Counter-cyclical payments are estimated for 2002 through 2007 using the K-State price projections from August 27, 2003. These estimated payments are listed in columns 3 through 8 of Table 3. The sum of the direct payment and the 2004-crop counter-cyclical payment is reported in column 9 of Table 3. This sum represents the total estimated government payment for 2004 for use in the crop cost-return budgets. Tables 4 and 5 are companion tables to Table 3 and estimate payments that are 8 percent higher and lower than Table 3 payments. They are designed to be used with yield levels I and III respectively in the cost-return budgets.

Table 2. *Estimated National Average Marketing Year Prices, K-State*[a]

	Marketing Year Average Prices (Beginning Year of Harvest) ($/bushel)					
Crop (Marketing Year)	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**
Wheat (June-May)	$3.56	$3.32	$3.24	$3.23	$3.23	$3.23
Corn (September-August)	2.31	2.27	2.32	2.28	2.26	2.25
Milo (September-August)	2.28	2.08	2.13	2.11	2.10	2.10
Soybeans (September-August)	5.52	5.59	5.22	5.27	5.30	5.32

[a]*Estimated by a futures-based national average price model, Kansas State University, August 27, 2003.*

Table 3. *Estimated Direct and Counter-cyclical Payments per Acre of Cropland by Farm Management Associaiton Region, 2002-2007, Yield Level II ($/Acre)*

Region of Kansas	**Estimated Direct Payments**	**Estimated Counter-cyclical Payments***						**2004 Estimated Government Payments****
		2002	**2003**	**2004**	**2005**	**2006**	**2007**	
NW	$12.36	$0.19	$1.46	$2.92	$3.83	$4.21	$4.39	$15.28
SW	13.66	0.13	1.79	3.54	4.34	4.66	4.78	17.20
NC	14.16	0.07	2.04	3.90	4.57	4.82	4.88	18.06
SC	15.35	0.07	1.82	4.47	5.09	5.29	5.34	19.82
NE	13.60	0.20	2.37	3.14	3.92	4.26	4.34	16.74
SE	11.39	0.08	1.86	3.10	3.47	3.59	3.57	14.49

** The estimated counter-cyclical payments for each year are based on K-State projected prices estimated on August 27, 2003.*
*** The estimated government payments in each crop budget for 2004 are based on the estimated direct payments plus the estimated counter-cyclical payments for 2004.*

Table 4. *Estimated Direct and Counter-cyclical Payments per Acre of Cropland by Farm Management Associaiton Region, 2002-2007, Yield Level I ($/Acre)*

Region of Kansas	Estimated Direct Payments	Estimated Counter-cyclical Payments*						2004 Estimated Government Payments**
		2002	2003	2004	2005	2006	2007	
NW	$11.37	$0.17	$1.34	$2.69	$3.52	$3.87	$4.04	$14.06
SW	12.57	0.12	1.65	3.26	3.99	4.29	4.40	15.83
NC	13.03	0.06	1.88	3.59	4.20	4.43	4.49	16.62
SC	14.12	0.06	1.67	4.11	4.68	4.87	4.91	18.23
NE	12.51	0.18	2.18	2.89	3.61	3.92	3.99	15.40
SE	10.48	0.07	1.71	2.85	3.19	3.30	3.28	13.33

** The estimated counter-cyclical payments for each year are based on K-State projected prices estimated on August 27, 2003.*
*** The estimated government payments in each crop budget for 2004 are based on the estimated direct payments plus the estimated counter-cyclical payments for 2004.*

Table 5. *Estimated Direct and Counter-cyclical Payments per Acre of Cropland by Farm Management Associaiton Region, 2002-2007, Yield Level III ($/Acre)*

Region of Kansas	Estimated Direct Payments	Estimated Counter-cyclical Payments*						2004 Estimated Government Payments**
		2002	2003	2004	2005	2006	2007	
NW	$13.35	$0.21	$1.58	$3.15	$4.14	$4.55	$4.74	$16.50
SW	14.75	0.14	1.93	3.82	4.69	5.03	5.16	18.57
NC	15.29	0.08	2.20	4.21	4.94	5.21	5.27	19.50
SC	16.58	0.08	1.97	4.83	5.50	5.71	5.77	21.41
NE	14.69	0.22	2.56	3.39	4.23	4.60	4.69	18.08
SE	12.30	0.09	2.01	3.35	3.75	3.88	3.86	15.65

** The estimated counter-cyclical payments for each year are based on K-State projected prices estimated on August 27, 2003.*
*** The estimated government payments in each crop budget for 2004 are based on the estimated direct payments plus the estimated counter-cyclical payments for 2004.*

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