

Government Program Parameters

Table 4 lists the Government program parameters—for decoupled programs: the direct payment rate, maximum counter-cyclical payment rate, program yield, payment per base acre, and total payment. An implicit scale factor—subsuming payout proportions, coverage rates, and participation rates—is calculated to equate the endogenously calculated program payments to reported aggregate program payments. For loan deficiency payments, the loan rate, weighted average loan deficiency payment rate, total production, and total loan deficiency payments are listed. Maximum CRP acreage, average CRP payment per acre, and maximum aggregate CRP payout can be set by the user. For crop insurance, the acreage insured, elasticity of crop insurance demand, premium per acre, and subsidy per acre are consensus estimates based on data from the Risk Management Agency, published by the USDA's Office of the Chief Economist (2006). Each of these parameters can be set by the user.

Table 4

Government program parameters: Base solution: U.S. aggregate EDMP model, 2002-05 average

Direct payments

Activity name	Corn	Soybeans	Wheat	Rice	Barley	Oats	Sorghum	Cotton
Direct payment rate	0.28	0.44	0.52	2.35	0.24	0.24	0.35	0.0667
* Program yield	131.82	36.119	40.72	55.18	54.38	48.192	33.44	522.00
= Payment/acre	31.373	13.509	17.998	110.222	11.093	9.831	9.948	29.595
Total direct payment	2116.30	903.64	1072.88	345.74	58.04	21.97	82.66	380.56
Implicit scale factor	0.8696	0.8695	0.8700	0.8696	0.8696	0.8696	0.8696	0.8696

Counter-cyclical payments

Activity name	Corn	Soybeans	Wheat	Rice	Barley	Oats	Sorghum	Cotton
(Target price	2.63	5.80	3.92	10.50	2.24	1.44	2.57	0.724
-Direct payment	0.28	0.44	0.52	2.35	0.24	0.024	0.35	0.0667
-Loan rate)	1.95	5.00	2.75	6.50	1.85	1.33	1.95	0.52
* Program yield	131.82	36.119	40.72	55.18	54.38	48.192	33.44	522.00
= CC payment/ acre	52.728	13.003	26.468	408.994	8.157	4.145	9.029	71.671
Total CC payment	2390.32	584.55	1059.73	191.93	28.68	6.22	50.42	619.36
Implicit scale factor	0.5844	0.5844	0.5844	0.5844	0.5844	0.5844	0.5844	0.5844

Marketing loan gains and loan deficiency payments

Activity name	Corn	Soybeans	Wheat	Rice	Barley	Oats	Sorghum	Cotton
Loan rate	1.95	5.00	2.75	6.50	1.85	1.33	1.95	0.52
Wtd. ave. LDP rate	0.164	0.499	0.148	0.499	0.000	0.064	0.000	0.030
*Total sales & Use	11116.80	2910.88	3100.59	245.46	238.14	111.06	27.76	8788.9
=Total LDP payment	1821.03	1451.14	455.36	122.52	0.00	7.07	0.00	260.28

Conservation reserve program

Enrolled CRP acres	(mil)	36.90
*CRP payment/acre	(\$/acre)	58.392
=Maximum CRP payout	(\$ mil)	2191.56

—continued

Table 4

Government program parameters: Base solution: U.S. aggregate EDMP model, 2002-05 average—Continued**Crop insurance subsidies**

Activity name	Corn	Soybeans	Wheat	Rice	Barley	Oats	Sorghum	Cotton
Acres insured	71.369	61.544	56.182	2.092	3.790	2.184	9.460	14.640
Percent insured	92%	80%	82%	58%	63%	85%	99%	99%
Ins. dem. elasticity	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
Premium/acre	22.415	17.185	9.765	33.812	9.255	4.519	5.999	24.128
Subsidy/acre	12.776	9.795	5.566	19.273	5.276	2.576	3.419	13.753
	Sugar beets	Sugar cane	Dry beans	Sunflower	Peanuts	Tobacco	All insured crops	
Acres insured	1.256	0.532	1.480	1.750	1.076	0.480	227.72	
Percent insured	90%	71%	85%	85%	78%	73%	85%	
Ins. dem. elasticity	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	
Premium/acre	65.764	65.764	26.663	17.781	46.323	345.984	4660.75 total	
Subsidy/acre	37.486	37.486	16.338	10.135	26.404	197.211	2636.63 total	

Source: Calculated from *USDA Agricultural Projections to 2016*.