The Counter-Cyclical Policy Instrument

Counter-cyclical payments are available on a designated commodity under the 2002 Farm Act when the commodity's marketing-year average price is less than its effective target price. The counter-cyclical payment rate equals the effective target price minus the higher of the commodity's marketing-year average price and the commodity's national loan rate. The payment amount for an eligible producer equals the product of the payment rate, the producer's payment acres, and the producer's payment yield.[1]

Counter-Cyclical Payment Rate

Counter-cyclical payment rates depend on the marketing-year average price and several policy parameters. Target prices, direct payment rates, and national loan rates for the nine eligible crops are specified in the 2002 Farm Act and are shown in table 1. For convenience, we refer to the effective target price for eligible crops. This price equals the target price minus the direct payment rate (table 1). Equation 1 shows how the counter-cyclical payment rate is calculated.[2,3]

$$(1) \qquad CCP\ rate\ =\ \max\{ET\ -\ \max[P,LR],\ 0\}$$

where ET is the effective target, P is the actual marketing-year average price, and LR is the national loan rate for the eligible crop. In other words, the payment rate is the difference (if positive) between the effective target price and the higher of the marketing-year average price and the loan rate. A crop's maximum counter-cyclical payment rate equals its effective target price minus its national loan rate. As shown in equation 1, this occurs whenever the marketing year average price is less than the national loan rate.

Figure 1 depicts the method used to calculate counter-cyclical payment rates for soybeans. The effective soybean target price is $5.36 per bushel, and the national soybean loan rate is $5.00 per bushel. The soybean counter-cyclical payment rate is zero when the marketing-year average soybean price is greater than or equal to the effective target price ($5.36 per bushel). The payment rate is maximized at $0.36 per bushel when the marketing-year average soybean price is less than or equal to the national loan rate ($5.00 per bushel). For intermediate prices—between the effective target and the national loan rate—the payment rate is offset (reduced) as the soybean price moves higher. Similar relationships hold for all the designated crops.

The marketing-year average price is a weighted national average of prices received by farmers. Weights reflect the proportion of the crop sold in each month.

USDA, National Agricultural Statistics Service (NASS) calculates marketing-year average price outcomes and publishes them in its monthly *Agricultural Prices* (table 2). USDA makes final counter-cyclical payments

[1]A producer is one who assumes crop production and price risk. This can be an owner-operator, landlord, tenant, or share cropper (the 2002 Farm Act sec., 1001 Definitions). A landlord receiving cash rent is not a producer, but a landlord receiving crop share is a producer. We do not discuss procedures used to divide counter-cyclical payments among multiple producers on a farm.

[2]Target prices are slightly higher and loan rates are slightly lower for five of the crops for marketing years 2004-07, compared with marketing years 2002 and 2003. The direct payment rate remains the same for all nine crops for the duration of the 2002 Farm Act. Maximum counter-cyclical payment rates for the five crops were increased by the sum of the target price increases and loan rate decreases.

[3]This is mathematically equivalent to the statutory formula in the 2002 Farm Act (Public Law 107-171, May 13, 2002). Our formulation makes use of the effective target price, rather than showing the target price and direct payment rate separately. This makes clear where the level of price protection actually begins.

for a commodity after the publication of the commodity's marketing-year average price outcome.
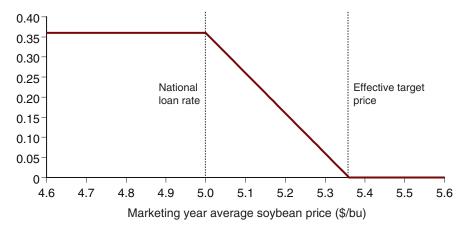
It is important to distinguish between actual prices and price forecasts. Actual marketing-year average prices are calculated only at the end of a marketing year, based on 12 months of price information. USDA makes price forecasts during the marketing year. USDA publishes its price forecasts monthly (for the current marketing year) in *World Agricultural Supply and Demand Estimates* (WASDE). Producers can receive advance counter-cyclical payments, if authorized by the Secretary, in October and February if the forecast of the marketing-year average price for a crop is less than its effective target.

Equation 1 also provides a means to project counter-cyclical payment rates: the WASDE price forecast can be substituted for P (the actual marketing-year average price) in the calculation.[4] However, the results do not necessarily represent an unbiased estimate of the counter-cyclical payment.

[4]Essentially, this is how USDA, Farm Service Agency (FSA) projects counter-cyclical payments to determine advance payments in October and February.

Figure 1

Soybean counter-cyclical payment rate for a marketing year using USDA method

Counter-cyclical payment rate ($/bu.)

Marketing year average soybean price ($/bu)

Source: USDA, Economic Research Service.

Table1

Policy variable levels for calculating counter-cyclical payment rates

Item	Target price		Direct payment rate, 2002-07	Effective target price		National loan rate	
	2002-03	2004-07		2002-03	2004-07	2002-03	2004-07
Barley $/bu	2.21	2.24	0.24	1.97	2.00	1.88	1.85
Corn $/bu	2.60	2.63	0.28	2.32	2.35	1.98	1.95
Oats $/bu	1.400	1.440	0.024	1.376	1.416	1.350	1.330
Sorghum $/bu	2.54	2.57	0.35	2.19	2.22	1.98	1.95
Peanuts $/ton	495	495	36	459	459	355	355
Soybeans $/bu	5.80	5.80	0.44	5.36	5.36	5.00	5.00
Rice $/cwt	10.50	10.50	2.35	8.15	8.15	6.50	6.50
Upland cotton $/lb	0.724	0.724	0.0667	0.6573	0.6573	0.520	0.520
Wheat $/bu	3.86	3.92	0.52	3.34	3.40	2.80	2.75

Source: Prepared by USDA, Economic Research Service using data from Westcott et al., 2002.

Table 2
Marketing-year start and end dates and marketing-year average-price release months

Commodity	Marketing year	Released in monthly *Agricultural Prices*
Barley	June 1 to May 31	June
Corn	September 1 to August 31	September
Oats	June 1 to May 31	June
Sorghum	September 1 to August 31	September
Peanuts	August 1 to July 31	August
Soybeans	September 1 to August 31	September
Rice	August 1 to July 31	January
Upland cotton	August 1 to July 31	October
Wheat	June 1 to May 31	June

Source: Prepared by USDA, Economic Research Service using USDA, National Agricultural Statistics Service, *Agricultural Prices*.

Total Counter-Cyclical Payments

As shown in equation 2, total counter-cyclical payments for a given crop and producer are calculated as the product of the counter-cyclical payment rate, the farm's payment acres for the crop, and the farm's program yield for the crop. Payment acres equal 0.85 times a farm's base acres.

$$(2) \quad TCCP = CCP \; rate \times payment \; acres \times CCP \; program \; yield$$

A farm's base program acres are determined by the farm's planting history and one-time base updating choices provided by the 2002 Farm Act. A farm's counter-cyclical program yield is based on its yield history. Young et al. (2005) examined producers' choices in base acre and program yield updating.

Advance Payments, Final Payments, and Repayment Situations

Producers choose to accept or decline offers of advance payments. Advance partial payment rates in October can equal up to 35 percent of the forecast total counter-cyclical payment rate for the marketing year. Advance payment rates in February can equal up to 70 percent of the forecast total counter-cyclical payment rate for the marketing year.

If the February advance payment rate is greater than the October payment rate, USDA offers producers who accepted the October payment a reduced February payment. The reduced advance February payment rate offered equals the advance February rate minus the October rate.

The total counter-cyclical payment rate is based on the average marketing-year price outcome reported by USDA, NASS. It can be calculated (using equation 1) at the end of a marketing year. The total rate is the final rate if no advance payment was accepted. Otherwise, the final rate equals the total payment rate minus advance payment rate(s) received.

If the sum of advance payments accepted exceeds the total payment rate, producers are obliged to repay the difference to the Government.[5] A producer can choose to let the Commodity Credit Corporation (CCC) automatically reduce future direct and counter-cyclical payments by the amount of the over-payment. For the 2003 crop, reductions could be made from October 2004 to October 2005.[6] For the 2004 crop, reductions could be made from October 2005 to October 2006. The 2002 crop had no overpayments.

If payment reductions over a designated period are not large enough to meet the repayment obligation, producers must repay the remaining balance according to the procedures established under the Debt Collection Improve-ment Act of 1996 (1996 DCIA). Producers may also repay the balance by submitting a check to the CCC. Again, 1996 DCIA procedures apply.

[5]Advance payment timing is differ-ent for the 2007 marketing year. For marketing year 2007, an advance pay-ment equal to 40 percent of the expected counter-cyclical payment can be made after the first 6 months (see 2002 Farm Act, title I, sec. 1104 and sec. 1304).

[6]The offset period was extended from March 2005 to October 2005 (*Federal Register*, March 21, 2005).