Wheat Policy Options: Implications for U.S. Agriculture

FAPRI-UMC Report #09-06
June 2006

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Summary

In response to a request from Senators Crapo and Baucus, and Representatives Musgrave and Pomeroy, the Food and Agricultural Policy Research Institute (FAPRI) has examined several options for reforming U.S. wheat policies. In addition to a **Baseline** that continues current policies, FAPRI examined three sets of policy options.

1) **Adjustments to current program** scenarios. These scenarios adjust target prices and direct payment rates, but keep other provisions of current programs in place.

2) **Target revenue** scenarios. These scenarios establish county-level revenue targets per acre, based on historical prices, yields, and payments under current programs. Payments would be made when actual per-acre county revenues fall below the targeted level.

3) **Flex program** scenarios. Under these scenarios, producers would be eligible for full payments under one of the three main payment programs (direct payments, countercyclical payments (CCPs), and marketing loan benefits), but only 50% of the normal payment under the other two programs. Target prices, direct payments, and loan rates would be adjusted.

FAPRI's stochastic model is used to examine 500 possible outcomes of the scenarios for U.S. agricultural markets. Selected results include:

- Increasing the wheat direct payment rate from the current $0.52 per eligible bushel to $1.00 while holding potential CCPs constant would increase farm program spending by slightly over $1 billion per year and net farm income by over $700 million per year, but would have only small effects on crop supplies and prices.

- Effects of a **target revenue** program would depend on specific provisions of such a program. For similar levels of average government spending, a target revenue program would provide more support when yields are below average than would the current mix of programs, but would provide less support when prices are below average.

- Effects of the **flex program** would depend on specific provisions. Under the two scenarios examined, many producers would see reductions in loan program benefits and CCPs in exchange for increased direct payments. Changes in CCPs and especially changes in loan program benefits have larger proportional effects on crop supplies and prices than do changes in direct payments.

The scenarios would have implications for U.S. compliance with current and future domestic support commitments with the World Trade Organization. Under terms of the October 2005 U.S. proposal, for example, changes in CCPs and loan program benefits would affect measures of blue and amber box support.

Wheat Policy Options: Implications for U.S. Agriculture

FAPRI has estimated the impacts of several farm policy options in response to a request from Senators Crapo and Baucus, and Representatives Musgrave and Pomeroy. The December 22, 2005 request letter (see the Appendix for the text of the letter) describes three basic options prepared by the National Association of Wheat Growers (NAWG). As instructed, FAPRI worked with NAWG staff to identify a range of scenarios under the three basic options. Seven of those scenarios are reported here.

The Scenarios

The seven scenarios are evaluated relative to FAPRI's January 2006 baseline. Important provisions of the scenarios are summarized in Table 1. All policy changes are assumed to be effective with the 2008/09 marketing year.

The first three scenarios can be characterized as modifications of current programs, and correspond to "Option 1" in the request letter:

a) The **$1.00 direct, $4.40 target, $2.75 loan** scenario. Increase the direct payment rate for wheat from the current $0.52 per eligible bushel to $1.00, and increase the target price from the current $3.92 per bushel to $4.40. Maintain the current wheat loan rate of $2.75 per bushel and all other current program provisions.

b) The **$1.00 direct, $4.40 target, no loan** scenario. Same as the first scenario, except eliminates the marketing loan program. With no loan rate, the countercyclical payment is no longer capped at the target price minus the direct payment rate minus the loan rate. This could be seen as replacing the marketing loan program with a "program based on historic base and yield" as indicated in the request letter.

c) The **$0.52 direct, $5.00 target, $2.75 loan** scenario. Same as current law, except the target price for wheat increases from the current $3.92 per bushel to $5.00. This scenario was not included in the original request letter, but was suggested by NAWG staff.

The second set of two scenarios corresponds to the "target revenue program" (TRP) discussed under "Option 2" in the request letter:

a) The **$0.52 direct, county-based** scenario. Eliminate the current countercyclical payment (CCP) and marketing loan programs for wheat and replace them with a target revenue program (TRP). The county target revenue per acre is set equal to a moving ten-year average of state market prices multiplied by the average county yield between 1998 and 2007, plus 1998-2007 average county payments per eligible acre under the marketing loan, production flexibility contract, market loss assistance, direct payment, and CCP programs. The payment rate under the program is the greater of zero or the target revenue, minus the state average price times the county average yield, minus the average direct payment per eligible acre. The TRP is then the payment rate multiplied by the base acreage, multiplied by 0.85. It is our belief that this program structure would qualify the

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TRP for blue-box treatment under the 2004 WTO framework agreement and the October 2005 U.S. proposal. For other commodities, 2002 farm bill provisions remain in place.

b) The **$1.00 direct, county-based** scenario. Same as the first target revenue scenario, except the direct payment rate is increased from $0.52 per eligible bushel to $1.00. The TRP is again assumed to apply only to wheat.

Finally, the last two scenarios correspond to the "flex program" discussed under "Option 3" in the request letter:

a) The **$1.00 direct, $4.40 target, $2.86 loan** scenario. The scenario increases the wheat direct payment rate to $1.00 per bushel, the target price to $4.40 per bushel, and the loan rate to $2.86 per bushel. Producers are assumed to be eligible to receive 100% of one payment calculated in the 2002 farm bill fashion, but only 50% of the other two payments. Given assumed program parameters, it appears it would almost always be preferable for wheat producers to take 100% of the (increased) direct payment and 50% of the CCPs and marketing loan benefits for which they would otherwise qualify. To simplify the analysis, the models are run assuming all producers would make this choice. Current programs are assumed to continue (with full payments) for all other crops.

b) The **budget neutral, all crops** scenario. The flex program is assumed to operate for all crops. For each crop, direct payment rates and target prices are increased by the same absolute amount so that commodity-specific government outlays over fiscal years 2009-2013 are approximately the same as in the baseline. For wheat, for example, the direct payment rate and the target price are each increased by $0.06 per bushel above baseline levels, to $0.58 and $3.98 per bushel, respectively. Loan rates are maintained at baseline levels for all crops. The size of the increase in direct payment rates and target prices for each commodity depends on the level of spending on the CCP and loan programs in the baseline. The greater the baseline expenditures, the greater the direct payment rate and target price increases, as the resulting increase in direct payments is "paid for" by producers receiving only 50% of the loan program benefits and CCPs for which they would otherwise qualify. To simplify the analysis, it assumed that all producers would choose to take 100% of their direct payments and 50% of the other two payments. For most commodities under most circumstances, this appears to be a reasonable assumption, although there would be exceptions, particularly in years with low expected prices when it may be optimal for some producers (especially producers of cotton and peanuts) to take 50% of their direct payment and 100% of one of the other two payments.

All scenarios assume adjustments in payment limitation rules so that producers are no more likely to be affected by limitations than they are under current law. A number of other scenarios were also examined, but not reported here. Under Option 1, these included other combinations of direct payments and target prices. Under Option 2, a scenario determining payments using national-level prices and yields rather than local prices and yields was examined. Under Option 3, another scenario examined alternative direct payment rates and target prices for crops other than wheat. These other scenarios are excluded from this report primarily because of space concerns.

Table 1. Policy assumptions, 2008-2012 crop years

	Baseline	Option 1: Adjustments to current program			Option 2: Target revenue		Option 3: Flex program	
		$1.00 direct $4.40 target $2.75 loan	$1.00 direct $4.40 target No loan	$0.52 direct $5.00 target $2.75 loan	$0.52 direct county-based	$1.00 direct county-based	$1.00 direct $4.40 target $2.86 loan	Budget neutral all crops
Direct payment rates				(dollars per bushel)				
Wheat	0.52	1.00	1.00	0.52	0.52	1.00	1.00	0.58
Corn	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.38
Soybeans	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.83
				(cents per pound)				
Upland cotton	6.67	6.67	6.67	6.67	6.67	6.67	6.67	16.50
Target prices				(dollars per bushel)				
Wheat	3.92	4.40	4.40	5.00	n.a.	n.a.	4.40	3.98
Corn	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.73
Soybeans	5.80	5.80	5.80	5.80	5.80	5.80	5.80	6.19
				(cents per pound)				
Upland cotton	72.40	72.40	72.40	72.40	72.40	72.40	72.40	82.23
Loan rates				(dollars per bushel)				
Wheat	2.75	2.75	n.a.	2.75	n.a.	n.a.	2.86	2.75
Corn	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95
Soybeans	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
				(cents per pound)				
Upland cotton	52.00	52.00	52.00	52.00	52.00	52.00	52.00	52.00
Target revenue program								
Applicability	n.a.	n.a.	n.a.	n.a.	Wheat only	Wheat only	n.a.	n.a.
Target revenue	n.a.	n.a.	n.a.	n.a.	Based on historical county yields and payments, state prices*	Based on historical county yields and payments, state prices*	n.a.	n.a.
Flex program								
Applicability	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	Wheat only	All crops
% of 1 payment available (assumed to be direct)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	100	100
% of other 2 payments available (assumed to be countercyclical & loar	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	50	50

* A county's target revenue per eligible acre is defined as the 1998-2007 average county yield multiplied by the most recent 10-year average state price, plus 1998-2007 average payments per eligible acre from the direct payment, production flexibility contract, market loss assistance, countercyclical payment, and marketing loan programs. The current year revenue per eligible acre is the county average yield multiplied by the state average price, plus direct payments per eligible acre. The payment rate per eligible acre is equal to the maximum of zero or the target revenue minus the current year revenue. For each producer, total payments equal the payment rate per eligible acre multiplied by the producer's base acreage, multiplied by 0.85.

The Modeling Approach

The baseline for the analysis is the stochastic baseline developed by FAPRI based on January 2006 conditions. The stochastic baseline is a set of 500 outcomes for commodity supply, demand, and prices, government costs, farm income, and other indicators, all based on the assumption of current policies but making different assumptions about crop yields, demand conditions, and a number of other factors. For each of the seven policy scenarios, relevant policy parameters are altered and the FAPRI modeling system is used to estimate impacts relative to the baseline.

The FAPRI stochastic model is based on national-level supply, demand, and prices, so some additional work was required to estimate impacts of a county-based TRP. County-level wheat data for 1995-2005 were used to estimate what TRP payments would be if conditions of that period were repeated in the future. Those results, based on actual county-level data, were then used to calibrate the national stochastic model so that it would generate reasonable estimates of county-based TRP payments given model values for national yields and prices.[1] Two points are worth noting:

1) County-level data is not available for all counties and all years. The National Agricultural Statistics Service (NASS) does not report county-level data when limited numbers of producers or other factors cause disclosure issues; instead counties are aggregated to protect confidentiality. The aggregations change from year to year, so in many cases there is no consistent series across time. Between 1995 and 2005, 12 percent of wheat production occurred in counties where there were not 11 straight years of available county-level data. Somewhat surprisingly, this problem even appeared occasionally in major wheat states such as North Dakota. For purposes of the analysis, the "missing" counties were assumed to behave in the same way as the average of all other counties, but this raises questions about how such a program would operate in practice. State level prices are used to compute target and actual revenue, as county-level prices are not available from NASS.

2) Payments under the TRP would occur for most counties in years like 1999, when prices were low, but only in counties with abnormally low yields in many other years. Given all the assumptions of the analysis, TRP payments would be made in 27% of counties on average (70% in a year like 1999; 5% in a year like 2005).

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[1] The national mean payment rate for each year was calculated from the county-level analysis of 1995-2005 data. A similar calculation was made of what the payment rate would have been had payment triggers been made based on national prices and yields. A simple equation was estimated, with national payment rate based on county data estimated as a function of national revenues per acre. To validate the equation, the resulting estimate of 2008/09 payments using the two approaches were compared, and found to be within a few cents per bushel of being identical. Further details regarding the analytical approach are available upon request (contact Patrick Westhoff at westhoffp@missouri.edu).

Results

The tables summarize the baseline and impacts of the scenarios. The analysis assumes the policy options are implemented beginning with the 2008/09 crop year, and tables provide estimates of average impacts over the 2008/09-2012/13 period (fiscal years 2009-2013 for government costs; calendar years 2008-2012 for farm income). Therefore, each number in a table is actually the average of 2,500 numbers—500 stochastic outcomes for each of five years. More detailed tables provide annual averages through 2015/16, and if desired, it is possible to look at each of the 500 stochastic outcomes.

Tables 2-11 follow the same format. The first column of numbers in each table represents the average of stochastic baseline outcomes for the 2008/09-2012/13 period. **The remaining columns show the average absolute change from baseline values resulting from implementation of each of the policy options.** For example, Table 2 indicates that average wheat planted area for the 2008-2012 period is estimated to be 57.28 million acres under a continuation of 2002 farm bill policies (the baseline). The table indicates the **$1.00 direct, $4.40 target, $2.75 loan** scenario under Option 1 increases wheat planted area by an average of 70,000 acres—in other words, the 2008-2012 average wheat planted area is estimated to be 57.35 million acres if direct payments are increased to $1.00 per bushel, target prices are increased to $4.40 per bushel, and all other provisions of current law are kept at 2002 farm bill levels.

<u>Wheat supply and utilization</u>

- The most important thing to note is that none of the policy options have large impacts on wheat supply, use, or prices (Table 2).

- All else equal, an increase in direct payments would have a very small positive effect on acreage and production of wheat and other crops. This explains the 70,000 acre average increase in wheat area in the **$1.00 direct, $4.40 target, $2.75 loan** scenario under Option 1.

- Eliminating the marketing loan program (as in the **$1.00 direct, $4.40 target, no loan** scenario under Option 1 and both scenarios under Option 2) has two important market effects. First, by reducing payments tied to production, eliminating the marketing loan program has a negative impact on wheat production, all else equal. Second, eliminating the marketing loan program results in a modest reduction in carryover stocks (commercial stocks increase in response to the elimination of the loan program, but do not fully offset the reduction in stocks under the loan program).

- Increasing the wheat target price in the **$0.52 direct, $5.00 target, $2.75 loan** scenario under Option 1 results in an 860,000 acre increase in wheat area planted and a 2.4 cent per bushel average reduction in wheat prices. The estimated impact on acreage is greater than it would have been had the same amount of additional payments been made under the direct payment program, but substantially less than if the same amount of money been provided under the marketing loan program.

- The target revenue scenarios generally have small impacts on commodity supplies and prices. Acreage declines slightly, as eliminating the wheat loan program means support is shifted away from a program where payments are only available on actual production to a program where payments are not tied to producer supply decisions.

- In the **$1.00 direct, $4.40 target, $2.86 loan** scenario under Option 3, the impact of an increased wheat loan rate is more than offset by the impact of the flex provision that is assumed to give producers just 50% of the loan program benefits and CCPs they would otherwise be entitled to. The reduction in per-acre marketing loan and CCP benefits has a negative effect on acreage that is almost exactly offset by the positive effect of increased direct payments, leaving production essentially unchanged.

- Wheat acreage increases in the **budget neutral, all crops** scenario under Option 3. The estimated 300,000 acre increase in wheat area planted results when producers of cotton and other crops switch to wheat in response to reduced payments to those crops under the marketing loan and CCP programs.

- In general, prices move in the opposite direction of production, but all of the price impacts are very small (less than 1%). Given the tiny changes in market prices, estimated impacts on exports and domestic demand are also very small.

Table 2. 5-year average impacts of alternative wheat policies on wheat supply and utilization

	Baseline level	Option 1: Adjustments to current program			Option 2: Target revenue		Option 3: Flex program	
		$1.00 direct $4.40 target $2.75 loan	$1.00 direct $4.40 target No loan	$0.52 direct $5.00 target $2.75 loan	$0.52 direct county-based	$1.00 direct county-based	$1.00 direct $4.40 target $2.86 loan	Budget neutral all crops
Area				*(million acres)*				
Base area	75.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Planted area	57.28	0.07	-0.12	0.86	-0.06	-0.13	-0.03	0.30
Harvested area	48.57	0.06	-0.10	0.73	-0.05	-0.11	-0.02	0.26
Yield				*(bushels per acre)*				
Actual	42.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Program, direct	34.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Program, CCP	36.10	0.00	0.00	0.00	n.a.	n.a.	0.00	0.00
				(million bushels)				
Supply	2,689	3	-15	40	-12	-16	-1	13
Beginning stocks	518	1	-11	9	-10	-11	0	2
Production	2,086	2	-4	31	-2	-5	-1	11
Imports	85	0	0	0	0	0	0	0
Domestic use	1,198	0	-1	7	0	-1	0	2
Feed, residual	194	0	0	5	0	-1	0	2
Seed	79	0	0	1	0	0	0	0
Food, other	924	0	0	0	0	0	0	0
Exports	983	2	-1	22	0	-2	-1	8
Total use	2,181	2	-2	29	0	-2	-1	10
Ending stocks	508	1	-13	11	-13	-14	0	3
CCC inventory	40	0	0	0	0	0	0	0
Under loan	52	0	-52	1	-52	-52	3	0
Other stocks	416	1	39	10	39	39	-3	3
Prices and returns				*(dollars)*				
Farm price/bu.	3.59	-0.003	0.000	-0.024	-0.001	0.000	0.000	-0.007
Loan rate/bu.	2.75	0.00	-2.75	0.00	-2.75	-2.75	0.11	0.00
Average LDP rate/bu.	0.03	0.00	-0.03	0.00	-0.03	-0.03	0.02	0.00
Target price/bu.	3.92	0.48	0.48	1.08	-3.92	-3.92	0.48	0.06
CCP rate/bu.	0.09	0.00	0.00	0.82	-0.09	-0.09	0.00	0.00
Direct payment/bu.	0.52	0.48	0.48	0.00	0.00	0.48	0.48	0.06
Gross market revenue/a.	153.77	-0.12	-0.01	-1.04	-0.05	0.01	0.00	-0.30
LDP revenue/a.	1.31	0.02	-1.31	0.17	-1.31	-1.31	-0.29	-0.65
Variable expenses/a.	86.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mkt+LDP net returns/a.	68.60	-0.10	-1.32	-0.87	-1.36	-1.30	-0.29	-0.94
CCP revenue/base a.	2.75	0.02	0.07	25.25	-2.75	-2.75	-1.44	-1.35
TRP revenue/base a.	n.a.	n.a.	n.a.	n.a.	6.68	2.69	n.a.	n.a.
Direct payment/base a.	15.25	14.08	14.08	0.00	0.00	14.08	14.08	1.76

Notes: The table reports averages over the 2008/09-2012/13 marketing years. Baseline averages are reported in the first column of numbers. The remaining columns report average absolute changes from the baseline resulting from the seven policy scenarios.

Area planted

- The policy options all have relatively small impacts on crop acreage (Table 3).

- Even in the baseline, wheat producers receive only limited marketing loan benefits and CCPs. Scenarios that reduce wheat marketing loan benefits and CCPs, therefore, only have modest acreage impacts, encouraging a small reduction in wheat acreage and a small increase in acreage for other crops.

- The largest impact on wheat acreage is in the **$0.52 direct, $5.00 target, $2.75 loan** scenario under Option 1, due to the very large increase in CCPs.

- Acreage impacts on other crops are largest in the **budget neutral, all crops** scenario under Option 3, as reductions in marketing loan benefits and CCPs result in reduced acreage of cotton, rice, peanuts, and other crops dependent on those payments. Wheat acreage increases slightly, as wheat is less dependent on loan benefits and CCPs.

- Increases in direct payments only have modest positive effects on acreage. Because the payments are not tied to actual production, the FAPRI system assumes that $1.00 of direct payments has a much smaller impact on acreage than $1.00 in marketing loan benefits or market returns. CCPs are assumed to have an intermediate effect, as they are not tied to production, but do provide an insurance effect.

Crop prices

- The policy options all have relatively small impacts on crop prices (Table 4).

- In general, crop prices move in the opposite direction from changes in acreage and production, although cross-commodity effects are sometimes important.

- Even under the **budget neutral, all crops** scenario under Option 3, prices for all crops change by less than 3 percent from baseline values, with the largest impacts on peanuts, cotton, and rice. For feed grains and soybeans, average price impacts are less than 1 cent per bushel in all 7 scenarios.

Table 3. 5-year average impacts of alternative wheat policies on planted area for major crops

	Baseline level	Option 1: Adjustments to current program			Option 2: Target revenue		Option 3: Flex program	
		$1.00 direct $4.40 target $2.75 loan	$1.00 direct $4.40 target No loan	$0.52 direct $5.00 target $2.75 loan	$0.52 direct county-based	$1.00 direct county-based	$1.00 direct $4.40 target $2.86 loan	Budget neutral all crops
Planted area				(million acres)				
Corn	84.41	0.01	0.04	-0.08	0.01	0.04	0.02	-0.05
Soybeans	70.95	0.02	0.04	-0.04	0.01	0.04	0.03	-0.01
Wheat	57.28	0.07	-0.12	0.86	-0.06	-0.13	-0.03	0.30
Upland cotton	14.08	0.00	0.01	-0.03	0.00	0.01	0.01	-0.52
Sorghum	6.30	0.02	0.03	0.01	0.01	0.03	0.02	0.04
Barley	3.73	0.01	0.01	-0.01	0.00	0.01	0.01	-0.01
Oats	4.15	0.01	0.01	0.00	0.00	0.01	0.01	0.02
Rice	3.26	0.00	0.00	0.00	0.00	0.00	0.00	-0.09
Sunflowers	2.44	0.00	0.01	0.00	0.00	0.01	0.00	0.00
Peanuts	1.55	0.00	0.00	0.00	0.00	0.00	0.00	-0.02
Sugar beets	1.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sugar cane (harvested)	0.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12 crop planted area	250.32	0.14	0.03	0.71	-0.01	0.01	0.07	-0.32
Hay harvested area	62.54	-0.01	0.00	-0.06	0.00	0.00	-0.01	0.03
12 crops + hay	312.86	0.13	0.02	0.65	-0.01	0.01	0.06	-0.29

Notes: The table reports averages over the 2008/09-2012/13 marketing years. Baseline averages are reported in the first column of numbers. The remaining columns report average absolute changes from the baseline resulting from the seven policy scenarios.

Table 4. 5-year average impacts of alternative wheat policies on prices for major crops

	Baseline level	Option 1: Adjustments to current program			Option 2: Target revenue		Option 3: Flex program	
		$1.00 direct $4.40 target $2.75 loan	$1.00 direct $4.40 target No loan	$0.52 direct $5.00 target $2.75 loan	$0.52 direct county-based	$1.00 direct county-based	$1.00 direct $4.40 target $2.86 loan	Budget neutral all crops
				(dollars per bushel)				
Corn	2.40	-0.001	-0.002	0.002	-0.001	-0.002	-0.001	0.001
Soybeans	5.51	-0.003	-0.006	0.004	-0.002	-0.006	-0.004	0.007
Wheat	3.59	-0.003	0.000	-0.024	-0.001	0.000	0.000	-0.007
Sorghum	2.21	-0.002	-0.003	-0.001	-0.001	-0.003	-0.002	-0.002
Barley	2.74	-0.002	-0.004	0.003	-0.001	-0.004	-0.003	0.004
Oats	1.80	-0.002	-0.004	0.001	-0.001	-0.004	-0.003	-0.004
				(dollars per hundredweight)				
Rice	7.71	0.00	0.00	0.00	0.00	0.00	0.00	0.11
				(cents per pound)				
Peanuts	19.15	-0.01	-0.02	0.02	-0.01	-0.02	-0.01	0.50
Sunflowers	12.30	-0.01	-0.01	0.01	0.00	-0.01	-0.01	0.02
Upland cotton	51.51	-0.01	-0.02	0.04	-0.01	-0.02	-0.01	0.82
				(dollars per ton)				
Hay	102.07	0.03	-0.01	0.24	-0.01	-0.01	0.01	-0.09

Notes: The table reports averages over the 2008/09-2012/13 marketing years. Baseline averages are reported in the first column of numbers. The remaining columns report average absolute changes from the baseline resulting from the seven policy scenarios.

<u>Crop returns—average outcomes</u>

- In the scenarios with an increase in the wheat direct payment rate to $1.00 per eligible bushel, returns to producers with wheat base acreage increase by $12-$14 per wheat base acre planted to wheat (Table 5).

- Wheat marketing loan benefits are small on average in the baseline (just $1.31 per acre), as market prices are generally well above the loan rate. Reducing or eliminating marketing loan benefits, therefore, has only a small effect on average producer returns. The loss of marketing loan benefits would have much larger impact in years with low prices.

- Similarly, baseline wheat CCPs average just $2.75 per acre. Therefore, the large proportional reduction in CCP revenue under Option 3 has only a small impact on producer returns. Given payment formulas, the market price that triggers CCPs is the same $3.40 per bushel in the **$1.00 direct, $4.40 target, $2.75 loan** scenario under Option 1 as in the baseline

- CCPs are sharply increased in the **$0.52 direct, $5.00 target, $2.75 loan** scenario under Option 1, resulting in greater net returns than under any of the other scenarios.

- Given assumptions of the analysis, TRP payments are relatively modest on average. Under the **$1.00 direct, county-based** scenario under Option 2, the average payment per base acre is $2.69, almost the same as baseline CCPs. While average payment rates are similar, the two programs would not always make payments under the same circumstances. For example, wheat CCPs would tend to be large in years with above average yields and below average prices, while TRP payments would tend to be small or zero in such years if offsetting impacts of high yields and low prices leave revenues near average. By construction, TRP payments will only be large when county level revenues are below average, whether it is because of low prices, low yields, or both. Recall that the TRP is assumed to apply only to wheat under Option 2.

- TRP payments are larger in the **$0.52 direct, county-based** scenario under Option 2, averaging $6.68 per base acre. Net returns per base acre planted to wheat are less than in the **$1.00 direct, county-based scenario**, as the difference in direct payments is much larger than the difference in TRP payments between the two scenarios.

- While the flex program has only modest impacts on the components of wheat producer returns (given low baseline marketing loan benefits and CCPs), the impacts are much larger on other crops, especially cotton, rice, and peanuts. For cotton and peanuts, there could be situations where rational producers would choose to take 100% of their CCP or marketing loan benefits and only 50% of their direct payment.

- The changes in producer net returns per base acre are uniformly small under the **budget neutral, all crops** scenario, and would be even smaller if differences between base acreage and harvested acreage were taken into account.

Table 5. 5-year average impacts of alternative wheat policies on crop returns per acre

	Baseline level	Option 1: Adjustments to current program			Option 2: Target revenue		Option 3: Flex program	
		$1.00 direct $4.40 target $2.75 loan	$1.00 direct $4.40 target No loan	$0.52 direct $5.00 target $2.75 loan	$0.52 direct county-based	$1.00 direct county-based	$1.00 direct $4.40 target $2.86 loan	Budget neutral all crops
Wheat		(dollars per acre)						
Market gross returns	153.77	-0.12	-0.01	-1.04	-0.05	0.01	0.00	-0.30
- Variable costs	86.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00
= Market net returns	67.29	-0.12	-0.01	-1.04	-0.05	0.01	0.00	-0.30
+ Loan program benefits	1.31	0.02	-1.31	0.17	-1.31	-1.31	-0.29	-0.65
= Market + loan net returns	68.60	-0.10	-1.32	-0.87	-1.36	-1.30	-0.29	-0.94
		(dollars per wheat base acre)						
+ CCP or TRP	2.75	0.02	0.07	25.25	3.93	-0.06	-1.44	-1.35
+ Direct payment	15.25	14.08	14.08	0.00	0.00	14.08	14.08	1.76
		(dollars per wheat base acre planted to wheat)						
= Net returns w/ payments	86.60	14.00	12.82	24.38	2.57	12.72	12.35	-0.53
Corn		(dollars per acre)						
Market gross returns	369.25	-0.17	-0.34	0.23	-0.14	-0.34	-0.21	0.21
- Variable costs	203.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00
= Market net returns	166.11	-0.17	-0.34	0.23	-0.14	-0.34	-0.21	0.21
+ Loan program benefits	8.74	0.05	0.14	-0.09	0.08	0.15	0.08	-4.62
= Market + loan net returns	174.86	-0.12	-0.20	0.14	-0.05	-0.19	-0.13	-4.41
		(dollars per corn base acre)						
+ Countercyclical payment	10.08	0.04	0.09	-0.07	0.04	0.09	0.05	-5.11
+ Direct payment	24.37	0.00	0.00	0.00	0.00	0.00	0.00	8.70
		(dollars per corn base acre planted to corn)						
= Net returns w/ payments	209.31	-0.08	-0.10	0.07	-0.01	-0.10	-0.08	-0.81
Soybeans		(dollars per acre)						
Market gross returns	229.31	-0.13	-0.25	0.15	-0.09	-0.25	-0.16	0.27
- Variable costs	104.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00
= Market net returns	124.35	-0.13	-0.25	0.15	-0.09	-0.25	-0.16	0.27
+ Loan program benefits	12.10	0.05	0.12	-0.08	0.06	0.12	0.07	-6.06
= Market + loan net returns	136.44	-0.08	-0.13	0.07	-0.03	-0.12	-0.09	-5.78
		(dollars per soybean base acre)						
+ Countercyclical payment	4.21	0.01	0.02	-0.02	0.01	0.02	0.02	-2.13
+ Direct payment	11.52	0.00	0.00	0.00	0.00	0.00	0.00	10.21
		(dollars per soybean base acre planted to soybeans)						
= Net returns w/ payments	152.18	-0.07	-0.10	0.05	-0.02	-0.10	-0.07	2.29
Upland cotton		(dollars per acre)						
Market gross returns	466.26	-0.06	-0.17	0.33	-0.06	-0.17	-0.10	6.47
- Variable costs	368.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00
= Market net returns	97.64	-0.06	-0.17	0.33	-0.06	-0.17	-0.10	6.47
+ Loan program benefits	46.64	0.04	0.11	-0.24	0.04	0.12	0.07	-25.73
= Market + loan net returns	144.28	-0.02	-0.05	0.09	-0.02	-0.06	-0.04	-19.26
		(dollars per cotton base acre)						
+ Countercyclical payment	61.16	0.02	0.05	-0.09	0.01	0.05	0.03	-31.53
+ Direct payment	34.23	0.00	0.00	0.00	0.00	0.00	0.00	50.44
		(dollars per cotton base acre planted to cotton)						
= Net returns w/ payments	239.67	0.00	-0.01	0.00	-0.01	-0.01	-0.01	-0.35

Notes: The table reports averages over the 2008/09-2012/13 marketing years. Baseline averages are reported in the first column of numbers. The remaining columns report average absolute changes from the baseline resulting from the seven policy scenarios.

Crop returns-distribution of outcomes

- The various scenarios affect not just the average level of producer returns, but also the distribution of returns depending on actual price, yield, and production cost outcomes.

- In the baseline, average 2010/11 wheat producer net returns per wheat base acre planted to wheat are actually slightly greater in the 100 stochastic outcomes where the price is less than $3.23 per bushel than in the 100 outcomes where the price is between $3.23 and $3.52 (Figure 1). This occurs because low prices are generally associated with high yields and because at low prices, producers are eligible for both loan program benefits and CCPs. There is a range of prices (from the loan rate to slightly above the loan rate) where a $0.01 per bushel decrease in season-average market prices increases CCPs by $0.01 per bushel and increases national average loan program benefits as well, resulting in an overall increase in producer revenues.

- The **$1.00 direct, $4.40 target, $2.75 loan scenario** under Option 1 (labeled Option 1a in the figures) increases producer returns by approximately $14 per acre under all baseline price outcomes.

- The **$1.00 direct, county-based** scenario under Option 2 (labeled Option 2b in the figures) has about the same average impact on producer revenues as the **$1.00 direct, $4.40 target, $2.75 loan** scenario under Option 1, but different outcomes at different prices. In particular, the TRP scenario makes significantly smaller payments on average at prices below $3.23 per bushel than in the other scenario, but slightly larger payments than in the other scenario at higher prices. Because the TRP makes payments based on revenues rather than prices, it is less likely than current programs to make large payments in years when prices are below average because of above-average yields.

- In contrast, the TRP is more likely to make payments when yields are below average than is the case under current programs (Figure 2). With or without an increase in direct payments, net returns to wheat producers are strongly related to wheat yields under current programs. There is still a positive relationship between yields and returns with the TRP in place, but returns are greater at low yields under the **$1.00 direct, county-based** scenario under Option 2 than at low yields under the **$1.00 direct, $4.40 target, $2.75 loan** scenario under Option 1. The reverse is true at higher yield levels.

- Finally, note that none of the options does anything to reduce variability in producer net returns caused by variability in production expenses (Figure 3). Not surprisingly, net returns generally decline as production expenses increase. The pattern is not as clear as one might expect, however, in part because of interactions with markets for biofuels. Higher fuel prices cause increases in production costs that reduce producer net returns, but they also increase the profitability of ethanol production, resulting in higher prices for corn and other grains. On average, the cost effect dominates.

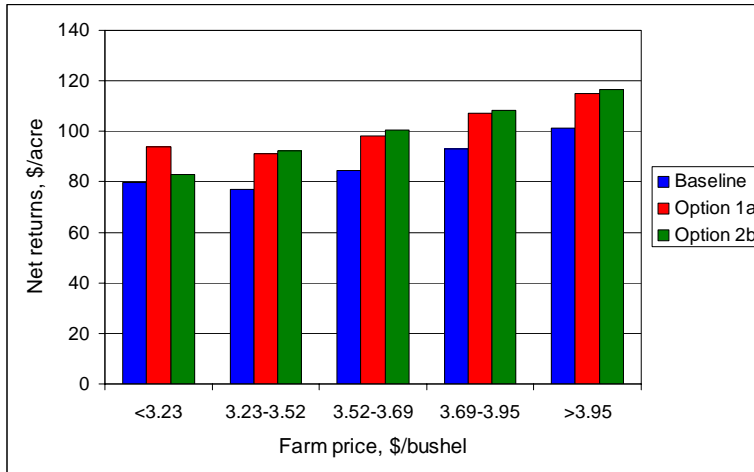Figure 1. Wheat prices and net returns, 2010/11
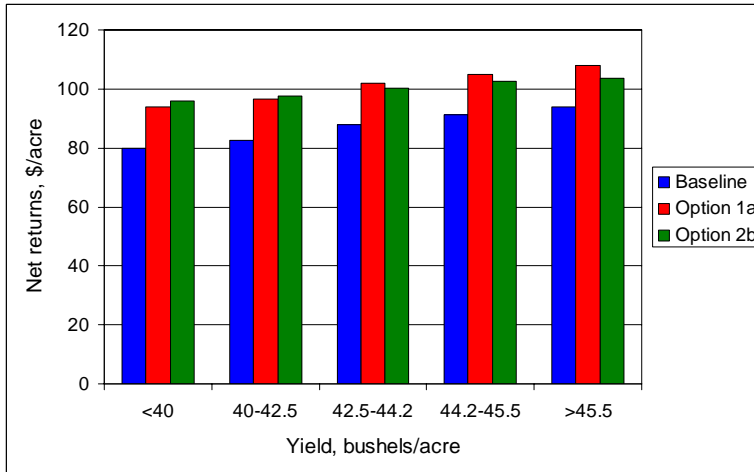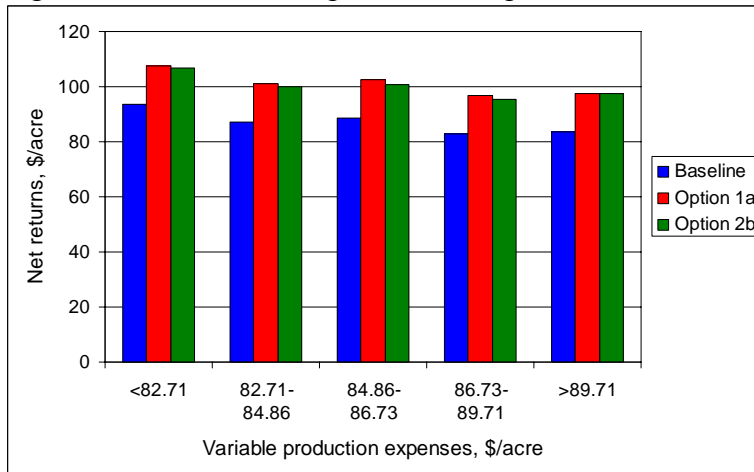

Figure 2. Wheat yields and net returns, 2010/11

Figure 3. Wheat variable production expenses and net returns, 2010/11

Payments to crop producers

- The scenarios that increase the wheat direct payment rate from $0.52 per eligible bushel to $1.00 per eligible bushel increase wheat direct payments by $1.05 billion per year (Table 6).

- In the **$1.00 direct, $4.40 target, $2.75 loan** scenario under Option 1, CCPs and marketing loan benefits are similar to baseline levels. The very small reported differences can be attributed to very small changes in production and market prices, as there is no change in the prices that trigger CCPs or marketing loan benefits.

- In the **$1.00 direct, $4.40 target, no loan** scenario under Option 1, the reduction in marketing loan benefits is larger than the increase in CCPs. This occurs primarily because there is no increase in CCPs to offset lost marketing loan payments when prices are slightly above the baseline loan rate. Limited loan program benefits are generally available even when national season-average market prices are slightly above the loan rate. CCPs only increase in response to the elimination of the loan program when national season-average prices are below the loan rate.

- The **$0.52 direct, $5.00 target, $2.75 loan** scenario under Option 1 results in a $1.9 billion increase in annual wheat CCPs and overall payments, the largest increase in payments of any scenario reported here.

- The **$0.52 direct, county-based** scenario under Option 2 results in wheat TRP payments that exceed baseline CCPs by about $300 million per year. Given the estimated reduction in marketing loan benefits, overall annual government payments increase by $250 million above baseline levels.

- In the **$1.00 direct, county-based** scenario under Option 2, average annual wheat TRP payments are almost identical to baseline CCPs. The increase in direct payments relative to the baseline and the elimination of the loan program result in a net increase in payments of approximately $1 billion per year relative to the baseline.

- The **$1.00 direct, $4.40 target, $2.86 loan** scenario under Option 3 results in net reductions in CCPs and marketing loans, given the assumption that producers would only be eligible for 50% of the payments normally available under those programs.

- The **budget-neutral, all crops** scenario under Option 3 has relatively small effects on overall payments for each crop, by construction. A $2.6 billion increase in direct payments is offset by a $1.4 billion reduction in CCPs and a $1.3 billion reduction in marketing loan benefits. As noted earlier, these results assume all producers choose to take 100% of their increased direct payments and 50% of the CCPs and marketing loan benefits they would otherwise receive.

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Table 6. 5-year average impacts of alternative wheat policies on payments to crop producers

	Baseline level	Option 1: Adjustments to current program			Option 2: Target revenue		Option 3: Flex program	
		$1.00 direct $4.40 target $2.75 loan	$1.00 direct $4.40 target No loan	$0.52 direct $5.00 target $2.75 loan	$0.52 direct county-based	$1.00 direct county-based	$1.00 direct $4.40 target $2.86 loan	Budget neutral all crops
				(million dollars)				
Direct payments	5,259	1,051	1,051	0	0	1,051	1,051	2,632
Corn	2,109	0	0	0	0	0	0	753
Sorghum	199	0	0	0	0	0	0	40
Barley	84	0	0	0	0	0	0	14
Oats	3	0	0	0	0	0	0	1
Wheat	1,139	1,051	1,051	0	0	1,051	1,051	131
Rice	425	0	0	0	0	0	0	148
Soybeans	598	0	0	0	0	0	0	530
Peanuts	67	0	0	0	0	0	0	95
Sunflowers	13	0	0	0	0	0	0	9
Other oilseeds	7	0	0	0	0	0	0	5
Upland cotton	614	0	0	0	0	0	0	905
Countercyclical paym'ts	2,710	7	16	1,894	301	7	-101	-1,389
Corn	875	3	8	-6	4	8	5	-444
Sorghum	58	0	1	0	0	1	0	-29
Barley	12	0	0	0	0	0	0	-6
Oats	0	0	0	0	0	0	0	0
Wheat (includes TRPs)	207	2	5	1,903	297	-5	-108	-102
Rice	116	0	0	0	0	0	0	-63
Soybeans	222	1	1	-1	0	1	1	-113
Peanuts	122	0	0	0	0	0	0	-67
Sunflowers	0	0	0	0	0	0	0	0
Other oilseeds	0	0	0	0	0	0	0	0
Upland cotton	1,098	0	1	-2	0	1	1	-566
Marketing loan benefits	2,513	10	-40	-9	-52	-39	0	-1,329
Corn	672	4	11	-7	7	12	6	-356
Sorghum	32	0	1	0	0	1	0	-16
Barley	17	0	0	0	0	0	0	-9
Oats	2	0	0	0	0	0	0	-1
Wheat	65	1	-65	10	-65	-65	-15	-32
Rice	179	0	0	0	0	0	0	-95
Soybeans	857	4	9	-6	4	9	6	-428
Peanuts	57	0	1	0	0	1	0	-33
Sunflowers	12	0	0	0	0	0	0	-6
Other oilseeds	18	0	0	0	0	0	0	-9
Upland cotton	604	1	2	-4	1	2	1	-344
Total payments	10,482	1,069	1,028	1,885	250	1,020	950	-86
Corn	3,656	7	19	-13	10	20	11	-47
Sorghum	289	1	1	0	1	1	1	-5
Barley	112	0	1	0	0	1	0	-1
Oats	6	0	0	0	0	0	0	-1
Wheat	1,411	1,054	992	1,913	232	982	928	-2
Rice	720	0	0	0	0	0	0	-10
Soybeans	1,678	5	10	-7	5	11	6	-10
Peanuts	246	0	1	-1	0	1	1	-5
Sunflowers	25	0	0	0	0	0	0	3
Other oilseeds	25	0	0	0	0	0	0	-5
Upland cotton	2,316	1	3	-6	1	3	2	-5

Notes: The table reports averages over the 2008/09-2012/13 marketing years. Baseline averages are reported in the first column of numbers. The remaining columns report average absolute changes from the baseline resulting from the seven policy scenarios.

<u>Net government outlays</u>

- The estimated impacts of the scenarios on average annual government outlays (Table 7) generally are consistent with the estimates of changes in producer payments.

- The estimated average annual impacts on government outlays between fiscal years 2009 and 2012 sometimes differ slightly from the estimated impacts on 2008/09-2012/13 crop year payments for two primary reasons. First, crop years do not always match up well with fiscal years—payments associated with a given crop year can be made over two or even three fiscal years. Second, changes in loan program provisions have impacts on government outlays that are not reflected in payment estimates.

- By construction, average government outlays under the **budget neutral, all crops** scenario under Option 3 are almost the same as in the baseline. The savings shown under "other net costs" are largely attributed to reductions in interest costs associated with lower levels of loan activity. This type of secondary effect is unlikely to be considered if such a policy option were formally scored by the Congressional Budget Office (CBO).

- It is important to recognize that FAPRI estimates of farm program costs will not match those of CBO or other organizations, because of differences in baselines and modeling approaches. Estimated impacts of changes in direct payments are likely to be almost identical across organizations, but estimates of payments based on prices and/or yields are likely to differ.

Table 7. 5-year average impacts of alternative wheat policies on net government outlays

		Option 1: Adjustments to current program			Option 2: Target revenue		Option 3: Flex program	
	Baseline level	$1.00 direct $4.40 target $2.75 loan	$1.00 direct $4.40 target No loan	$0.52 direct $5.00 target $2.75 loan	$0.52 direct county-based	$1.00 direct county-based	$1.00 direct $4.40 target $2.86 loan	Budget neutral all crops
Feed grains				(million dollars)				
Corn	3,753	7	19	-13	10	20	10	-4
Sorghum	294	1	1	0	1	1	1	-2
Barley	111	0	1	0	0	1	0	0
Oats	5	0	0	0	0	0	0	0
Food grains								
Wheat	1,436	1,054	996	1,910	236	986	934	4
Rice	728	0	0	0	0	0	0	0
Oilseeds								
Soybeans	1,689	5	10	-7	5	10	6	4
Peanuts	312	0	1	-1	0	1	1	0
Other oilseeds	50	0	0	0	0	0	0	-1
Other commodities								
Upland cotton	2,442	1	3	-6	1	3	2	-3
Sugar	38	0	0	-1	0	0	0	6
Dairy	39	0	0	-1	0	0	0	0
CCC conservation	2,340	0	0	0	0	0	0	0
Other								
Disaster payments, NAP	325	0	0	0	0	0	0	0
Other net costs	2,175	0	-12	-1	-12	-12	1	-84
Net CCC outlays	15,739	1,069	1,021	1,879	242	1,012	957	-82

Notes: The table reports averages over the 2009-2013 fiscal years. Baseline averages are reported in the first column of numbers. The remaining columns report average absolute changes from the baseline resulting from the seven policy scenarios. Changes affecting crop year 2008/09 would also have impacts on outlays during fiscal year 2008 that are not reflected in this table.

Farm receipts

- Given only modest impacts on commodity production and prices, it should not be surprising that none of the scenarios has a very large impact on crop and livestock cash receipts (Table 8). In all cases, the average impact on total cash receipts from marketings is less than $100 million, compared to baseline receipts of $244 billion.

- The single largest impact is a negative effect on cotton receipts in the **budget neutral, all crops** scenario under Option 3. The reduction in cotton production under that scenario is proportionally larger than the increase in cotton prices, so receipts decline.

Farm production expenses

- With little change in crop or livestock production, most categories of production costs show little change from baseline values under all seven scenarios (Table 9).

- The largest exception to this rule is rent paid to nonoperator landlords. In the model, increases in producer net returns (whether caused by increased production, prices, or payments or reduced production costs) result in an increase in rental payments, as landlords are assumed to adjust rental rates over time.

- Production costs decline slightly from baseline levels in the **budget neutral, all crop scenario** under Option 3. The reduction in loan program benefits reduces production of input-intensive cotton, rice, and peanuts.

Table 8. 5-year average impacts of alternative wheat policies on farm cash receipts

	Baseline level	Option 1: Adjustments to current program			Option 2: Target revenue		Option 3: Flex program	
		$1.00 direct $4.40 target $2.75 loan	$1.00 direct $4.40 target No loan	$0.52 direct $5.00 target $2.75 loan	$0.52 direct county-based	$1.00 direct county-based	$1.00 direct $4.40 target $2.86 loan	Budget neutral all crops
				(million dollars)				
Feed grains	32,013	-5	-11	4	-6	-11	-6	7
Food grains	8,805	3	-23	49	-19	-24	-1	1
Oilseeds	16,829	-5	-9	3	-4	-9	-5	26
Cotton	6,025	1	2	-5	1	2	1	-104
Sugar	2,264	0	-1	4	0	-1	-1	-12
Other crops	57,622	0	0	0	0	0	0	0
Cattle	45,283	0	-1	-5	0	-1	0	4
Hogs	13,889	-1	-2	1	-1	-2	-1	4
Dairy products	25,804	0	-1	4	-1	-1	0	0
Poultry, eggs	29,819	-3	-6	1	-3	-6	-3	7
Other livestock	5,661	0	0	0	0	0	0	0
Total cash receipts	244,014	-11	-52	55	-33	-54	-18	-68

Notes: The table reports averages over the 2008-2012 calendar years. Baseline averages are reported in the first column of numbers. The remaining columns report average absolute changes from the baseline resulting from the seven policy scenarios.

Table 9. 5-year average impacts of alternative wheat policies on farm production expenses

	Baseline level	Option 1: Adjustments to current program			Option 2: Target revenue		Option 3: Flex program	
		$1.00 direct $4.40 target $2.75 loan	$1.00 direct $4.40 target No loan	$0.52 direct $5.00 target $2.75 loan	$0.52 direct county-based	$1.00 direct county-based	$1.00 direct $4.40 target $2.86 loan	Budget neutral all crops
				(million dollars)				
Feed	32,986	-6	-18	25	-8	-18	-10	22
Purchased livestock	15,176	1	2	-4	1	2	1	-1
Seed	11,387	2	3	1	1	3	2	-32
Fertilizer and chemicals	22,169	6	4	19	1	3	4	-58
Fuels and electricity	15,070	3	2	10	1	2	2	-25
Interest	18,965	18	17	25	1	16	16	10
Contract and hired labor	27,748	1	1	1	0	1	1	-12
Capital consumption	25,319	33	30	44	3	29	30	21
Rent to non-operators	10,864	294	272	450	41	264	262	107
All other	60,108	17	14	32	2	13	14	-87
Total production expenses	239,793	368	327	604	42	314	322	-57

Notes: The table reports averages over the 2008-2012 calendar years. Baseline averages are reported in the first column of numbers. The remaining columns report average absolute changes from the baseline resulting from the seven policy scenarios.

Farm income

- Under all of the scenarios, government payments increase and net farm income also increases (Table 10).

- In all cases, the increase in net farm income is less than the increase in payments, primarily because landlords are assumed to capture part of the benefits by increasing rental rates.

- Net farm income increases slightly in the **budget neutral, all crops** scenario under Option 3. Government payments increase relative to the baseline on a calendar year basis, even though crop year payments are near baseline levels. This can be explained by timing issues—increased direct payments are made, on average, earlier in the marketing year than are CCPs and loan program benefits. Because the scenario increases direct payments at the same time it reduces other payments, the net effect is to accelerate payments by a few months, increasing the amount of payments falling within the 5-calendar-year window.

Land values

- The increase in producer income under each of the scenarios translates into a modest increase in farm real estate values (Table 11). While farm real estate values are affected by many factors, producer returns are at least one relevant factor.

- The increases in farm income and real estate values also have several spillover effects. Producers buy more machinery, which increases capital consumption over time. Higher land values and more machinery purchases translate into increased interest expenditures over time as well.

Table 10. 5-year average impacts of alternative wheat policies on farm income

		Option 1: Adjustments to current program			Option 2: Target revenue		Option 3: Flex program	
		$1.00 direct	$1.00 direct	$0.52 direct	$0.52 direct	$1.00 direct	$1.00 direct	Budget
	Baseline	$4.40 target	$4.40 target	$5.00 target	county-	county-	$4.40 target	neutral
	level	$2.75 loan	No loan	$2.75 loan	based	based	$2.86 loan	all crops
		(million dollars)						
1. Farm receipts	263,321	-11	-52	56	-33	-54	-18	-68
Crops	123,558	-7	-42	55	-28	-43	-12	-82
Livestock	120,456	-4	-10	1	-5	-10	-6	14
Farm-related	19,307	0	0	1	0	0	0	0
2. Government payments	15,444	1,067	1,027	1,677	207	1,011	957	181
3. Gross cash income (1 + 2)	278,765	1,057	975	1,733	175	957	939	114
4. Nonmoney income	15,998	32	30	43	3	28	29	20
5. Value of inventory Change	221	2	14	3	12	14	2	-30
6. Gross farm income (3 + 4 + 5)	294,984	1,092	1,018	1,779	189	999	969	103
7. Cash expenses	212,874	335	296	560	39	285	292	-78
8. Total expenses	239,793	368	327	604	42	314	322	-57
9. Net cash income (3 - 7)	65,891	722	678	1,173	135	672	646	192
10. Net farm income (6 - 8)	55,191	723	691	1,175	148	685	647	160

Notes: The table reports averages over the 2008-2012 calendar years. Baseline averages are reported in the first column of numbers. The remaining columns report average absolute changes from the baseline resulting from the seven policy scenarios.

Table 11. 5-year average impacts of alternative wheat policies on average farm real estate values

		Option 1: Adjustments to current program			Option 2: Target revenue		Option 3: Flex program	
		$1.00 direct	$1.00 direct	$0.52 direct	$0.52 direct	$1.00 direct	$1.00 direct	Budget
	Baseline	$4.40 target	$4.40 target	$5.00 target	county-	county-	$4.40 target	neutral
	level	$2.75 loan	No loan	$2.75 loan	based	based	$2.86 loan	all crops
		(dollars per acre)						
National average	1,742	14.01	12.88	20.24	1.63	12.45	12.52	6.68

Notes: The table reports averages over 2009-2013 based on January 1 figures. Baseline averages are reported in the first column of numbers. The remaining columns report average absolute changes from the baseline resulting from the seven policy scenarios.

<u>WTO Domestic Support Measures</u>

- Under baseline policies and provisions of the Doha Round proposal made by the United States in October 2005, the U.S. total current Aggregate Measure of Support (AMS) would average $8.6 billion in 2012 (Table 12). Under the U.S. proposal, the United States would commit to reducing its AMS to $7.6 billion.

- The scenarios affecting only wheat policies have minimal impacts on the U.S. AMS, as wheat marketing loan benefits are small on average.

- The **budget neutral, all crops** scenario under Option 3 would reduce the U.S. AMS by slightly more than $1 billion on average. While the United States would exceed its AMS commitment in 53% of the stochastic outcomes for 2012 under baseline policies, it would exceed the limit in only 30% of the stochastic outcomes for 2012 under the flex scenario for all crops because of the reduction in marketing loan benefits.

- Under baseline policies, CCP expenditures would average $2.2 billion in 2012, significantly less than the U.S.-proposed limit on CCP expenditures of $4.8 billion. However, in 11% of the stochastic baseline outcomes for 2012, CCPs would exceed the proposed limitation.

- The scenarios that increase direct payment rates and target prices by the same absolute amount have little net impact on CCPs, and therefore have little impact on the proportion of outcomes exceeding proposed limitations.

- The **$0.52 direct, $5.00 target, $2.75 loan scenario** under Option 1 would sharply increase wheat CCPs, raising total CCPs and blue box support in 2012 to $4.0 billion. While this average result is still less than the U.S.-proposed limit on blue box spending, in 29% of the stochastic outcomes for 2012, the limit would be exceeded.

- The **budget neutral, all crops** scenario under Option 3 would reduce average CCP expenditures by half. In no stochastic outcome for 2012 does U.S. blue box spending exceed the U.S.-proposed limit. This result is sensitive to the assumption that all producers for all crops would choose to take 50% of their normal CCP in order to collect 100% of an increased direct payment.

- All of these domestic support estimates are contingent on the provisions of the U.S. proposal. Other proposals would suggest different accounting rules and different support limits.

- Note that all figures in Table 12 are expressed in terms of levels to facilitate comparisons with proposed limits. Tables 2-11 reported scenario impacts in terms of absolute changes from baseline values.

Table 12. Domestic support estimates for 2012, under provisions of the U.S. October proposal*

		Option 1: Adjustments to current program			Option 2: Target revenue		Option 3: Flex program	
	Baseline	$1.00 direct $4.40 target $2.75 loan	$1.00 direct $4.40 target No loan	$0.52 direct $5.00 target $2.75 loan	$0.52 direct county-based	$1.00 direct county-based	$1.00 direct $4.40 target $2.86 loan	Budget neutral all crops
Product-specific				(million dollars)				
current AMS	8,498	8,508	8,489	8,485	8,476	8,489	8,503	7,419
Barley	11	11	12	11	11	12	11	5
Corn	389	392	396	383	391	396	393	161
Cotton (upland)	575	575	576	573	575	576	576	253
Dairy	5,149	5,149	5,149	5,148	5,149	5,149	5,149	5,149
Minor oilseeds	29	29	29	29	29	29	29	13
Oats	1	1	1	1	1	1	1	0
Peanuts	63	63	63	62	63	63	63	29
Rice	135	135	136	135	135	136	135	69
Sorghum	18	19	19	19	19	19	19	8
Soybeans	742	746	748	735	743	748	747	358
Sugar	1,259	1,259	1,259	1,258	1,259	1,259	1,259	1,263
Wheat	26	26	0	30	0	0	19	11
All other	100	100	100	100	100	100	100	100
Nonproduct-specific								
calculated AMS	3,293	3,295	3,295	3,300	3,294	3,295	3,295	3,290
Crop insurance	2,875	2,877	2,877	2,882	2,876	2,877	2,877	2,872
All other	418	418	418	418	418	418	418	418
Value of ag. production	241,901	241,886	241,869	241,946	241,897	241,870	241,880	241,782
(average de minimis trigger)	6,048	6,047	6,047	6,049	6,047	6,047	6,047	6,045
Nonproduct-specific								
included in current AMS	87	87	87	87	87	87	87	87
Total current AMS	8,585	8,594	8,575	8,572	8,563	8,576	8,589	7,506
(WTO commitment)	7,641	7,641	7,641	7,641	7,641	7,641	7,641	7,641
Blue box support	2,231	2,237	2,239	3,963	2,589	2,306	2,169	1,094
(WTO commitment)	4,773	4,773	4,773	4,773	4,773	4,773	4,773	4,773
Proportion of outcomes where:								
Total current AMS exceeds								
AMS commitment	52.6%	52.6%	52.6%	52.0%	52.6%	52.6%	52.6%	29.6%
CCPs/TRPs exceed								
blue box commitment	10.6%	10.6%	10.6%	29.4%	13.2%	10.6%	9.0%	0.0%

* Assumes direct payments are not included in amber or blue box, and that countercyclical payments and target revenue payments are classified as blue box. The current AMS commitment is reduced by 60% between 2007 and 2012. The blue box commitment is set at 2.5% of the 1999-2001 average value of production. The de minimis criteria for product-specific and nonproduct-specific support are set at 2.5% of the current value of production.

Appendix

Congress of the United States
Washington, DC 20515

December 22, 2005

Dr. Abner Womack
Co-Director
Food and Agricultural Policy Research Institute
Department of Agricultural Economics
University of Missouri – Columbia
101 S. Fifth Street
Columbia, MO 65201

Dear Dr. Womack:

We write to request the assistance of the Food and Agricultural Policy Research Institute (FAPRI) in evaluating proposed federal farm policy alternatives prepared by the National Association of Wheat Growers (NAWG). FAPRI's work will aid us in our efforts to prepare for Congress' work on the next farm bill.

Details of the NAWG plan are attached.
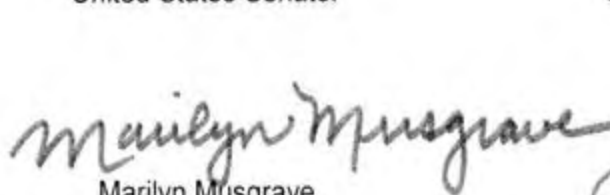
We request FAPRI's best estimates as to the impact the plan and each element of the plan would have on farm income, its costs to the federal government, and the effects it would have on agricultural production, market prices, and world trade.
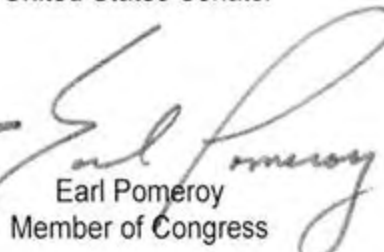
Please feel free to contact any of our offices, or the staff at NAWG, should you have any questions. We look forward to receiving your findings.

Sincerely,

Mike Crapo
United States Senator

Max Baucus
United States Senator

Marilyn Musgrave
Member of Congress

Earl Pomeroy
Member of Congress

Preliminary Proposals for 2007 Farm Bill for review by FAPRI

Members of the National Association of Wheat Growers have expressed their desire to help craft a 2007 Farm Bill based on the strengths of the 2002 Farm Bill.

It is both urgent and imperative that the United States acts promptly and decisively to assure the income and economic stability of Agriculture and Rural America. This should be done primarily via the Direct Payment concept which is an integral part of the 2002 Farm Bill and is consistent with our WTO commitments.

NAWG members believe that the new farm bill must center around a direct payment - higher than the current level in order to keep a safety net in place which will help offset the increases in overall production costs.

NAWG members also are considering ways of modifying both the CCP and marketing loan program to allow wheat growers greater access to these programs and/or make them more WTO compliant..

The initial proposals for the commodity title that NAWG would like reviewed for the 2007 Farm Bill include:

Option 1

1. A Direct Payment of $1.00 up from the current $.52, and
2. an increase in the counter cyclical program target rate to $4.40 up from $3.92,
3. and to allow producer choice: either keep the marketing loan program as is, or participate in a program based on historic base and yield and a recourse loan.

Option 2

1. Direct Payment at $1.00, and
2. change the Counter Cyclical program to a target revenue based program, and/or
3. a marketing loan program based on historic base and yield and a recourse loan

A new Target Revenue Program (TRP) counter-cyclical program could be based on the following formula:

Target Revenue = Historical Yield x Historic Base x (10 year Olympic NASS average + all government support payments)

Actual Revenue = County Average Yield x planted acres x (average price, 1st 9 months of marketing year)

Target Revenue –Actual Revenue = payment (less than 0, no payment, More than 0 = payment)
(Option 2 continued)

Currently the DCP payment limit is $40,000. In order to be consistent and to reflect the changes made to the DCP, the payment limit will be increased commensurately. Along with these proposals, NAWG believes that a $40,000 payment limit on the direct payment should be raised proportionately with the new $1.00 DP ($77,000).

Option 3 (Flex Program)

Because wheat producers have not been able to use the counter-cyclical program or the loan deficiency program as established under the 200 Farm Bill, NAWG would like to see a program established that allows producers the flexibility to choose which safety net works the best for that producer and maximize the benefit of that program.

The flex program should be optional. Producers would be allowed to stay in the program as written in law in the 2002 Farm Bill, or opt into the "flex" program. Participation in the flex program would require a yearly sign up.

The flex program would allow producers to sign up to receive a hundred percent of a payment (either a DP, CCP or LDP) and to get a 50% payment in the other two programs (with an increase in the payment limit in DP).

1. The payment limit for a direct payment should be raised to closer match the limit for LDP and CCP to a limit of $80,000 instead of $40,000.

2. Safety net would for wheat
   A. Suggested DP $1.00
   B. Suggested Target Price $4.40
   C. Suggested loan rate $2.86

Producers would be allowed to choose their participation in a program for each commodity.