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How to Save Billions in Farm Spending

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The most vexing problem facing Congress as it works toward completion of the farm bill is where to find funding to make changes in farm legislation. High commodity prices have drastically reduced available funds that supporters of change can tap to create new programs or expand existing programs. The agricultural committees have found only two significant sources of funds under their control: direct payments and the crop insurance program. Reductions in either program could fund increased nutrition and conservation programs or could be used to redesign commodity programs. The rationale for cutting direct payments is that it is difficult to see why crop farmers should receive subsidy payments when farm income is at record levels. The rationale for cutting crop insurance subsidies is that taxpayer support for the program has ballooned with the higher commodity prices, far outstripping the costs of actually running the program.

The House-passed farm bill kept direct payments in place but reduced crop insurance funding. About half of the House cuts to crop insurance are real and about half are budget sleights of hand that involve moving payments from one fiscal year to the next. At press time, the Senate had yet to act on a farm bill but indications are that the Senate will also choose to reduce crop insurance funding. About half of the House cuts to crop insurance are real and about half are budget sleights of hand that involve moving payments from one fiscal year to the next. At press time, the Senate had yet to act on a farm bill but indications are that the Senate will also choose to reduce crop insurance funding.

One justification for cutting crop insurance to help fund commodity program reform is that most crop insurance subsidies are targeted at the same crops that receive farm program payments. Table 1 shows a breakdown in crop insurance program costs attributable to program crops from 2005 to 2007. (The 2007 payments are estimated.) Program crops account for more than 80 percent of the costs of the crop insurance program, and this share has increased significantly over the last three years. More than $5 billion is now being spent on providing crop insurance to program crop producers, an amount that is about equal to the annual direct payments that the same producers receive.

Figure 1 shows the share of total crop insurance premium for program crops accounted for by each crop. As is readily apparent from the

Table 1. Crop insurance subsidies for program crops

<table>
<thead>
<tr>
<th>Year</th>
<th>Premium Subsidy</th>
<th>A&amp;O Subsidies</th>
<th>Company Underwriting Gains</th>
<th>Total Subsidies for Program Crops</th>
<th>Share of Total Subsidies Accounted For by Program Crops</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>1,828</td>
<td>691</td>
<td>783</td>
<td>3,302</td>
<td>81%</td>
</tr>
<tr>
<td>2006</td>
<td>2,176</td>
<td>789</td>
<td>817</td>
<td>3,782</td>
<td>83%</td>
</tr>
<tr>
<td>2007</td>
<td>3,218</td>
<td>1,126</td>
<td>1,105*</td>
<td>5,448*</td>
<td>86%</td>
</tr>
</tbody>
</table>

Note: Program crops include barley, corn, cotton, grain sorghum, oats, peanuts, rice, soybeans, and wheat.

*Estimated assuming that the 2007 aggregate loss ratio is 0.8.
data in Table 1 and Figure 1, when we talk about the crops affected by the crop insurance program, we are really talking about one large crop—corn—and three other crops—soybeans, wheat, and cotton.

The Table 1 data illustrates that significant funds could be obtained from the crop insurance program, either through cuts in premium subsidies, underwriting gains, or A&O (administrative and operating) reimbursements. Defenders of the program, however, argue that it would be counterproductive to cut any of these three items. They say premium subsidies are needed to get farmers to buy insurance, and company profit levels generated by taxpayer-subsidized underwriting gains and A&O are in line with what commercial insurance providers generate from the private market. (See, for example, testimony from Ron Brichler, senior vice president of Great American Insurance Company, before the General Farm Commodities and Risk Management Subcommittee, House Committee on Agriculture, June 7, 2007.) It follows, then, that any cuts from these levels would reduce program participation by both farmers and private companies.

Understanding the implications of cuts in direct payments is simple because they are so transparent. However, the crop insurance program is so complicated that few actually understand how the program works and what would happen if program funding were cut. But by taking a closer look at the program, we can estimate what could be saved and with what impacts. First, let’s look at producer premium subsidies.

**Impacts of Reducing Producer Premium Subsidies**

Farmers will choose to buy crop insurance if the benefits they derive from it are greater than its price. The first benefit is the standard insurance benefit obtained from knowledge that crop losses in excess of the insurance deductible will be covered. Experience has shown that this insurance benefit alone is insufficient motivation for most farmers to buy crop insurance. It must be, then, that crop insurance is a cost ineffective way for farmers to protect themselves against crop losses. Thus, to boost participation, Congress increased premium subsidies to the point at which most farmers find it difficult to resist. But even with taxpayers paying more than half their premium, many farmers claim that the program still does not generate enough payments relative to what they are asked to pay.

Figure 2 shows the “break-even” percent subsidy for farmers in major corn- and wheat-producing states. Presented are the levels of premium subsidy that if applied to recent premium rates would equate farmer-paid premiums with expected indemnity payments for producers of corn, soybeans, wheat, rice, and grain sorghum in each state. Expected indemnity payments are calculated for two periods: 1980 to 2005 and 1995 to 2005. The longer period is more indicative of expected indemnities if patterns of crop losses in the 1980s and early 1990s are possible in the future.

The break-even premium subsidy for Iowa is 38 percent if future crop losses follow the 1980 to 2005 pattern or 53 percent if the more recent past is indicative of future losses. This means that Iowa farmers have no profit motivation for buying crop insurance until the premium subsidy gets substantial. The same result holds for Illinois, Nebraska, Minnesota, and Indiana. The negative break-even premium subsidies in Ohio, Kansas, and the Dakotas indicate that farmers in these states do not need a premium subsidy to break even because their premium rates are already low enough.

The Figure 2 data indicate that Corn Belt farmers would not buy crop insurance if it were not heavily subsidized whereas farmers in important wheat states would have a profit motive to buy crop insurance even without premium subsidies. Given that corn and soybeans together represent about 60 percent of the entire crop insurance program, it is only a bit of an overstatement to say that the crop insurance industry is selling a product with so little demand at its current price that without government price subsidies, there would be no viable market. This conclusion is reinforced by the fact that unlike private insurance products, crop insurance
premiums do not cover the cost of selling, servicing, and reinsuring the insurance policies. Instead, the government provides direct support to insurance providers through A&O reimbursements and reinsurance. If premiums were set to cover these costs, the break-even premium subsidies in Figure 2 would be much greater.

This lack of market for unsubsidized crop insurance means that substantial savings could accrue from a reduction in premium subsidies. Direct savings would come about because farmers would be asked to pay more for their insurance. However, the indirect savings from a reduction in premium subsidies would likely be much greater than the direct savings. Depending on how the cut in premium subsidies was implemented, it is likely that farmers would buy less insurance. This decision would reduce their premium, which would reduce the per-acre premium subsidy and automatically trigger reductions in A&O reimbursements and underwriting gains. Of course, such a move would reverse the policy of trying to maximize participation in the program. The House chose to reduce premium subsidies but only for a subset of crop insurance policies (GRIP and GRP). This choice limits the indirect savings, as many farmers will simply move to products that receive higher subsidies.

**Growth in Administrative and Operating Reimbursements**

The best measure of changes in the actual cost of selling and servicing crop insurance policies is changes in the number of policies sold. Although larger farms will tend to involve a bit more work than smaller farms, most of the cost is determined by the number of policies. Table 2 provides data that give insight into A&O reimbursements from 2005 to 2007.

Using 2005 as a base year assumes that company reimbursements in that year were enough to allow an adequate level of service to be provided to producers of program crops. As shown, the number of policies sold to producers of program crops has fallen since 2005, yet, as shown in Table 2, total A&O reimbursements have dramatically increased over this period.

To put this growth into context, the House farm bill would reduce A&O reimbursements by about 14.5 percent. However, to hold A&O reimbursements per policy constant at their 2005 levels for program crops would require a 40 percent reduction in A&O reimbursements. An alternative way to provide A&O reimbursements would be to base them on policy count rather than as a percentage of premiums. This change would create an equal incentive for companies and agents to sell crop insurance to small and large farmers and it would not result in dramatic year-to-year changes in taxpayer costs that bear no reflection to actual industry costs. A reduction in A&O would be felt most directly in a reduction in crop insurance agent commissions. If per-policy A&O reimbursements were reduced to 2005 levels, then agent commissions would also be reduced to 2005 levels. If these levels were adequate to sell and service policies in 2005, then they are likely adequate today. If not, then consolidation in the number of agents selling crop insurance would occur.

**Table 2. Growth in operating costs and reimbursements since 2005 for program crops**

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Policies (thousand)</th>
<th>Number of Acres Insured (million)</th>
<th>A&amp;O Reimbursement per Policy ($)</th>
<th>A&amp;O Reimbursement per Acre ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>1,028</td>
<td>190</td>
<td>672</td>
<td>3.63</td>
</tr>
<tr>
<td>2006</td>
<td>996</td>
<td>191</td>
<td>792</td>
<td>4.14</td>
</tr>
<tr>
<td>2007</td>
<td>992</td>
<td>195</td>
<td>1,135</td>
<td>5.79</td>
</tr>
</tbody>
</table>

**Percent change from 2005**

<table>
<thead>
<tr>
<th>Year</th>
<th>Change in Policies</th>
<th>Change in Acres</th>
<th>A&amp;O Policy Change</th>
<th>A&amp;O Acre Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>-3%</td>
<td>0%</td>
<td>18%</td>
<td>14%</td>
</tr>
<tr>
<td>2007</td>
<td>-3%</td>
<td>2%</td>
<td>69%</td>
<td>59%</td>
</tr>
</tbody>
</table>

**Reductions in Underwriting Gains**

Another way that Congress could cut crop insurance program costs is through a reduction in net underwriting gains, defined as the difference between premiums collected and indemnities paid after accounting for the subsidized reinsurance that is provided by USDA. The House farm bill cuts program costs by increasing the “net book quota share” from 5 percent to at least 12.5 percent. This quota share is the percentage of net underwriting gains that companies must pay to USDA when their gains are positive and it is the percentage of losses that the companies do not have to cover when net gains are negative.

An increase in this quota share would be cost neutral if the probability and average magnitude of a loss equals the probability and average magnitude of a gain. But, as shown in Figure 2, premiums exceed expected indemnities in the Corn Belt. And because most of the crop insurance program consists of Corn Belt business, the probability of a gain is larger than the probability of a loss. Furthermore, the reinsurance provided by USDA treats losses differently than gains.

A good way to gain insight into the effects of an increase in quota share is by looking at the “value-at-risk” curve facing the crop insurance industry. Value-at-risk curves show the probability that underwrit-
ing gains will be less than a given level. Figure 3 shows the value-at-risk curve for crop insurance companies with and without USDA reinsurance from insuring program crops with premiums set at 2007 levels. The 1980 to 2005 level of risk is embodied in these curves. The risk would be much less than that shown if the 1995 to 2005 level of risk were used.

Providing crop insurance to farmers is risky business. Without reinsurance, there is a 1-in-200 chance that losses will exceed $8 billion. The reinsurance provided by USDA reduces the 1-in-200 loss to $2.8 billion with a maximum possible loss of $3.6 billion. This loss was calculated by assuming that companies place all their program crop business in the riskiest/highest-profit reinsurance fund and that USDA reinsurance is based on industry losses rather than individual company losses. The reinsurance also reduces the probability of a loss from 39 to 30 percent. This means that in 7 years out of 10, crop insurance companies should expect to have positive underwriting gains, which means that an increase in quota share will reduce program costs 70 percent of the time while increasing costs only 30 percent of the time. This asymmetry between gains and losses explains why increasing the net book quota share will reduce taxpayer costs of the program. Every 5 percent increase in quota share reduces program costs by about $27 million.

Where to Cut?
Congress has the opportunity to offset increased farm bill program costs by targeting cuts to crop insurance, which has generated tremendous growth in program costs. Significant savings are available through reductions in premium subsidies, A&O reimbursements, and net underwriting gains. Reductions in premium subsidies would likely generate the greatest savings because farmers would likely respond by dramatically reducing the amount of insurance they buy, which would automatically reduce program costs. Because the growth in A&O reimbursements has far outpaced actual increases in program operating delivery costs, significant savings could also be realized by changing the way A&O is calculated. For example, capping per-policy A&O reimbursements at 2005 levels would generate annual savings of almost $450 million. And every 10 percent reduction in the risk exposure of crop insurance companies through expansion of the reinsurance quota share could generate more than $50 million in savings up to a maximum annual savings of more than $500 million.

The choice available to Congress is clear: the only two significant sources of budget offsets to pay for the cost of changing direction with the 2007 farm are crop insurance and direct payments. If Congress chooses to cut crop insurance and it does not want to reduce producers’ incentives to buy insurance, then it will need to target A&O and underwriting gains. The impact of such reductions would be small initially because recent growth in both has been substantial. But combined cuts in excess of perhaps $500 million per year would likely begin to change the crop insurance delivery system, with fewer, larger crop insurance agencies. ♦