Farm Income and Farm Programs in the 1990s:

Pre-FAIR, Post-FAIR...

Fair Enough?

Whatever FAIR accomplished, it did not reduce farm program payments.

Freedom to fail?: The Federal Agricultural Improvement and Reform (FAIR) Act of 1996 was supposed to enable farmers of commodity crops (from top left: barley, rice, soybeans, corn; from bottom left: sorghum, wheat, cotton; not pictured, oats) to produce whatever was most profitable and end dependence on federal farm subsidies. When commodity prices collapsed, however, Congress was forced to provide supplemental income assistance.

Rice, barley and soybean photos courtesy of USDA/ARS. Wheat, corn and sorghum photos courtesy of USDA. Cotton photo courtesy of Texas A&M University.

The Federal Agricultural Improvement and Reform Act of 1996 (FAIR) was a watershed policy event. In a sharp break from the farm policies initiated in the 1930s, it eliminated annual acreage set-asides, ended most commodity crop storage programs, and gave producers of barley, corn, cotton, oats, rice, sorghum, and wheat the freedom to plant (or not plant) their land to any crop other than fruits or vegetables.

FAIR also discontinued variable deficiency payments under the target price program for these seven crops. They were replaced by fixed annual payments, commonly referred to as Agricultural Market Transition Act (AMTA) payments. Congress intended AMTA to cushion the transition to market-based decisions by providing fixed payments that declined each year, with the potential to cease entirely after 2002.

Problems, Principles, And Practices

FAIR became law in an environment of optimism regarding farm exports and crop prices. However, prices of grains, cotton, and oilseeds have declined to levels few analysts envisioned back in 1996. Reasons for this decline include the Asian economic crisis of the late 1990s, yield-increase-driven surpluses, and FAIR’s own acreage flexibility provisions that gave farmers greater ability than before to “follow the money” by planting whatever appeared to be most profitable. In response to the low prices, Congress increased payment limits and provided income assistance—$475 million in 1999 and $500 million in 2000—for oilseed producers, as well as supplemental AMTA payments of $2.9 billion in 1998 and $5.5 billion in both 1999 and 2000.

This article examines the minimum level of farm income provided by farm income support programs to producers of the seven AMTA-eligible crops, plus soybeans, during crop years 1991 through 2000. “Minor” oilseed crops such as canola and sunflowers are not included because the U.S. Department of Agriculture does not publish cost-of-production data for these crops.

Under FAIR, the marketing loan rate, AMTA payments, and additional income assistance have provided a minimum level of income for program participants.
Under the previous Farm Bill, program participants were eligible for target price protection on part of their production and loan rates on the rest of their production, if they honored acreage set-asides and cross-compliance requirements. Acreage set-asides worked to increase market prices by limiting acreage devoted to, and thus production of, a given crop. The resulting higher prices benefited both participants and non-participants in farm programs.

Here's why this analysis matters: Congress is ultimately concerned that the actual outcome of a policy fairly reflects its intent. If the actual outcome deviates significantly from the desired outcome, Congress has the ability — as demonstrated during the past three years — to modify policy.

The specific procedures we used to calculate the minimum gross cash income and net cash income above variable cash costs provided by farm income support pro-

**Procedures**

We calculated the minimum gross farm income provided by FAIR for the 1996-2000 crops of barley, corn, cotton, oats, rice, sorghum, soybeans, and wheat as:

1. **Minimum Gross Farm Income (FAIR Act)**

   \[
   \text{Minimum Gross Farm Income (FAIR Act)} = \left( \frac{\text{average U.S. yield per acre for the year}}{\text{harvested acres for the year}} \right) \times \left( \frac{\text{marketing loan rate for the year}}{\text{program participation rate for the year}} \right) + \left( \frac{\text{AMTA payments and supplemental income assistance for the year}}{\text{loan rate for the year}} \right)
   \]

   The marketing loan rate provides a floor on the amount received per unit of output. We included AMTA and supplemental income assistance payments because they are based on past production and constitute public support for farm sector resources.

   We calculated minimum gross cash farm income provided by the 1990 Farm Bill for crop years 1991-95 as:

2. **Minimum Gross Farm Income (1990 Farm Bill)**

   \[
   \text{Minimum Gross Farm Income (1990 Farm Bill)} = \left( \frac{\text{U.S. target price for the year}}{\text{amount of crop}} \right) + \left( \frac{\text{all production not eligible for deficiency payments for the year}}{\text{loan rate or average market price for the year}} \right) + \left( \frac{\text{payments made under the 0/92 and 50/92 programs for the year}}{\text{loan rate and upper bound determined by the average market price for the crop year}} \right)
   \]

   Farmers not participating in the farm income support program sold their crops at market price and thus benefited from farm programs that either established a floor price or restricted supply (both would tend to raise prices). Hence, we used the same set of calculations to determine the minimum income provided by the 1990 Farm Bill to non-participating growers as we did to determine the minimum income provided to the portion of output of participating farmers that was not eligible for target prices.

   A change in USDA's report format for cost-of-production data, beginning with crop year 1998, meant that variable cash costs were the only consistent cash cost measure available over the entire study period. With that in mind, we calculated the minimum net cash income above variable cash costs provided by the farm income support program for a crop as:

3. **Amount of Crop Eligible for Target Price**

   \[
   \text{Amount of Crop Eligible for Target Price} = \frac{\text{total deficiency payments made to producers of the crop for the year}}{\text{deficiency payment rate per unit of output for the year}}
   \]

   The per unit deficiency payment rate equaled the difference between the target price and the market price. Due to strong market prices for other program crops, only rice growers received deficiency payments during crop year 1995. We set the amount of a crop eligible for target prices during crop year 1995 equal to the amount calculated for a crop year(s) between 1991 and 1994 that had the same acreage set-aside required for 1995.

   For the remaining production of 1991-95 farm program participants, the loan rate established a minimum level of per unit gross income. However, for almost every year and crop during these years, average market price exceeded the loan rate. Government set-aside and acreage cross-compliance provisions contributed to this outcome. Both had the effect of reducing supply. Other reasons included weather and demand factors.

4. **Minimum Net Cash Income Above Variable Cash Cost**

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   \text{Minimum Net Cash Income Above Variable Cash Cost} = \left( \text{minimum gross cash income provided by the farm income support program for the year} \right) - \left( \frac{\text{variable cash cost of producing the crop for the year}}{\text{planted acres for the year}} \right)
   \]

   Finally, we summed the calculations for each of the eight crops to determine a crop year's total minimum gross cash income and total minimum net income support above variable cash costs provided by farm income support programs. All data for the calculations came either from USDA publications or through personal contact with USDA personnel.
Figure 1: Minimum Gross Cash Farm Income Provided by Farm Income Support Programs, Selected Crops*
U.S., Crop Years 1991-2000

prices were generally at or below the marketing loan rates during 2000, lower public income support would have translated into lower total farm income. Under the freedom-to-plant provision of FAIR, farmers have altered substantially their crop mix. In 2000, farmers planted 14.0 million more acres to soybeans and 14.5 million fewer acres to barley, oats, sorghum, and wheat when compared to annual average acreages for crop years 1991-95. To examine the impact of these acreage changes on the minimum levels of income provided by farm income support programs, we assumed that the acres harvested for each of the eight crops was equal to their 1991-95 average and that yield and farm program provisions, including supplemental income assistance, were equal to their values for crop year 2000. Under these conditions, the acreage shifts resulted in a $2.4 billion and $1.3 billion increase in minimum gross and net cash income provided by farm programs, respectively. Taken together, these findings imply that the AMTA payments plus 2000 supplemental assistance have more than offset the loss of minimum farm income provided by farm income support programs that occurred when FAIR eliminated target price deficiency payments. In addition, the freedom-to-plant provision in FAIR has further increased the minimum gross and net cash income provided by farm income support programs as farmers altered their crop rotations.

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Believe It Or Not, It Could Have Been Worse

Analysis of the farm program provisions in place and actual production recorded over crop years 1991-2000 shows that, compared with the 1990 Farm Bill, FAIR cut the minimum level of farm income provided by farm income support programs. Because crop prices declined significantly, failure by Congress to enact supplemental income assistance would have negatively impacted farm income. This in turn would have caused reduced wealth for farmers and other rural landowners as land prices declined. In short, the supplemental assistance packages have prevented a severe farm financial setback—if not a crisis.

 Provision of supplemental assistance suggests that society is not ready to cut support to the U.S. farm sector, at
least not in times of budget surpluses and low farm prices. Farmers depend on farm programs to maintain both their income and wealth. This dependency makes it easier for non-farm policy actors to negotiate with the farm sector for changes in other parts of the Farm Bill. A similar dependency during the financial crisis of the 1980s helped produce a 1985 Farm Bill with notable environmental provisions including conservation compliance, the Conservation Reserve Program, Sodbuster, and Swampbuster. The environmental community may take advantage of the current opportunity to champion a new round of initiatives.

When Congress debated FAIR, participants expected that marketing loan rates would be so far below anticipated price levels that they would rarely become effective. However, loan deficiency payments (LDPs) under the marketing loan program are forecast to reach $6.4 billion during fiscal year 2000, an amount that exceeds the $5.1 billion in AMTA payments for crop year 2000. The marketing loan program is essentially a target price program in which the loan rate is the target price. Thus, one could argue that FAIR didn’t terminate the target price program, it merely lowered the target price level.

As with deficiency payments under the target price program, LDPs under the marketing loan program are coupled to current production. Given their coupled nature and current size, LDPs may not be acceptable to all parties in future World Trade Organization (WTO) negotiations. Subsidies to crop and revenue insurance also provide production incentives. These subsidies may also face challenges in WTO negotiations. Congress may avoid discussing the size of LDPs and insurance subsidies, but excessive production generated by these coupled programs will be a continuing concern to producers at home and abroad.

Will Congress choose to address this dilemma in 2002 by altering farm policy? Will they—given the policy decisions they made while writing FAIR—consider reducing loan rates and insurance subsidies, replacing them with increased AMTA payments or some other form of fixed payment, such as payments for reducing environmental externalities? Furthermore, because no one in 1996 foresaw the current level of LDPs, society (through Congress) now has the opportunity to decide what it expects from farmers in return for this high level of public support. The conservation compliance requirements have been retained, but are unevenly enforced. What additional copay will be deemed sufficient?

These questions speak to the basic issue: What are the objectives of farm policy? Tweeten and Zulauf (1997) argue that the farm policy paradigm is changing. Will Congress seek to further the debate it began in 1996 on the fundamental organizing theme behind farm policy?

It is too early to predict that profound farm policy changes will occur in 2002. However, it is not too early to note that important questions remain on the table, questions that could spark significant changes. This potential, coupled with the extensive changes already wrought by the 1985 Farm Bill and by FAIR, leads us to conclude that farm policy has entered its most intriguing era since the formation of farm price and income support policy in the 1930s.

For More Information


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