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The 2002 Farm Act

Provisions and Implications for Commodity Markets

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Abstract

The Farm Security and Rural Investment Act of 2002 (2002 Farm Act), which governs agricultural programs through 2007, was signed into law in May 2002. This report presents an initial evaluation of the new legislation's effects on agricultural commodity markets, based on sectorwide model simulations under alternative policy assumptions. The analysis shows that loan rate changes under the marketing assistance loan program of the 2002 Farm Act initially result in an increase in total planted acreage of eight major program crops. This increase in plantings, however, is relatively small (less than 1 percent), partly due to the inelasticity of acreage response in the sector. In the longer run, the simulations indicate that overall plantings of the eight program crops studied are lower under the 2002 Farm Act than under a continuation of the 1996 Farm Act. This result mostly reflects larger enrollment in the Conservation Reserve Program and increased plantings of dry peas and lentils, although planted acreage for the eight program crops is reduced by less than 0.6 percent. The effects of the 2002 Farm Act on the livestock sector and retail food prices are relatively small. Farm income is increased, mostly due to higher government payments to the sector under the new law.

Keywords: Farm legislation, 2002 Farm Act, agricultural programs, commodity programs, marketing loans, counter-cyclical payments, direct payments, planting flexibility, base acres, payment yields, farm income, risk management, FAPSIM.

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Contents

Summary	iv
Introduction	1
Background for Development of the 2002 Farm Act	2
The 1996 Farm Act	2
Emergency Legislation in the Intervening Years	2
Shaping the New Farm Act	3
Major Commodity-Related Provisions of the 2002 Farm Act	4
Direct Payments	4
Counter-Cyclical Payments	5
Marketing Assistance Loan Program	5
Updating Base Acres and Payment Yields	6
Planting Flexibility	7
Payment Limitations	7
Peanuts	8
Sugar	8
Dairy	9
Conservation Provisions	9
Trade-Related Provisions	10
Effects of the 2002 Farm Act on U.S. Agriculture	12
Illustration of Income-Support Provisions	12
Counter-Cyclical Payments, Direct Payments, and Base Acreage and Payment Yield Updating Provisions	14
Box: Research Issues—Effects of Decoupled Programs on Commodity Markets	18
Model Simulated Effects of the 2002 Farm Act	19
Box: 2002 Farm Act Scenario Versus a Capped Loan Rate Scenario Under the 1996 Farm Act	24
Conclusions	27
References	29
Appendix A—Summary Tables Comparing Projections Under the 2002 Farm Act and the 1996 Farm Act	31
Appendix B—Commodity Projections Under the 2002 Farm Act and the 1996 Farm Act for Selected Field Crops	37

Summary

The Farm Security and Rural Investment Act of 2002 (2002 Farm Act) was signed into law on May 13, 2002. The new legislation governs agricultural programs through 2007, covering a wide range of programs for commodities, conservation, trade, rural development, nutrition, credit, forestry, and energy.

While the 2002 Farm Act introduces some new policies to the array of agricultural commodity programs, in many ways, it extends provisions of the 1996 Farm Act and the ad hoc emergency spending bills of 1998-2001. For example, the 2002 Act continues marketing assistance loans, which existed under previous U.S. farm law; direct payments replace production flexibility contract payments of the 1996 Farm Act; and counter-cyclical payments are intended to institutionalize the market loss assistance payments of the past several years.

This report provides an initial evaluation of the effects of the 2002 Farm Act on agricultural commodity markets, based on sectorwide model simulations under alternative policy assumptions: continuation of the 1996 Farm Act and introduction of the 2002 Farm Act. The scenarios use the USDA-ERS Food and Agricultural Policy Simulator (FAPSIM), supplemented with analyses by USDA interagency commodity committees for selected commodities. The model simulations cover 10 years and reflect USDA long-term projections at the time the new legislation was enacted. These projections include a backdrop of strengthening global trade and U.S. agricultural exports, resulting in rising market prices in the sector over the next decade.

The 2002 Farm Act affects the crop sector primarily through acreage and production changes. Thus, much of the crop sector focus in this report covers the effects of the new legislation on economic incentives underlying farmers' planting decisions and the resulting effect on acreage. Additional effects on these commodity markets reflect changes in equilibrium levels of prices and demand in response to the acreage and production changes.

Results indicate that changes in loan rates under the marketing assistance loan program of the 2002 Farm Act affect production choices most in the initial years when projected prices are low enough that marketing loan benefits exist. Overall plantings of the eight major program crops studied are higher initially under the 2002 Farm Act than under a 1996 Farm Act scenario that assumes market-price-based formula determination of loan rates. However, the largest increase in acreage is relatively small (about 2 million acres, or less than 1 percent) partly due to the inelasticity of acreage response in the sector where plantings change proportionately less than the economic incentives provided by prices and net returns. Some switching in the cropping mix from soybeans to competing crops, particularly corn, also occurs in the model simulations, reflecting relative changes in loan rates.

An alternative 1996 Farm Act scenario that leaves loan rates at the maximum levels allowed under that legislation results in smaller overall acreage increases (less than 1 million acres) under the 2002 Act in the initial years covered in the analysis.

In the longer run, as projected market prices in the simulations rise above ranges where there are marketing loan benefits for most crops, overall plantings of the eight major program crops are lower under the 2002 Farm Act due to higher enrollment in the Conservation Reserve Program and increased plantings of dry peas and lentils. Still, these acreage reductions are relatively small, generally ranging from 1.0 to 1.5 million acres in 2006-11.

Under the 2002 Farm Act, program changes for dry peas, lentils, dairy, and peanuts could result in some production increases of these agricultural commodities. The effects on the livestock sector are relatively small, reflecting moderate effects on production and prices of feed grain and protein meal crops. Retail food prices are not expected to change appreciably. Farm income is increased, mostly due to higher government payments to the sector under the new law.

Additional market effects may result from counter-cyclical payments, direct payments, and provisions of the 2002 Farm Act that permit the updating of base acreage and payment yields. Even though benefits of these provisions are not linked to current production of farmers, they may, nonetheless, provide indirect incentives that influence production decisions and overall agricultural output.

Counter-cyclical payments may influence production choices because of their link to market prices, which can lower risks to producers by reducing the variability of revenues in some price ranges for program crops. Although expected net returns would likely remain a dominant consideration in cropping choices for most situations, revenue risk reduction provided by counter-cyclical payments could affect production choices for risk-averse producers. For a risk-averse farmer, the production mix chosen, as well as the use of risk management strategies, would be based on the joint consideration of profit maximization and revenue risk reduction concerns, and would reflect the degree of risk aversion of the farmer.

Direct payments are more decoupled than marketing loans and counter-cyclical payments, but may influence production through wealth and investment effects. Provisions for updating base acreage and program yields may also influence current production choices if farmers expect future legislation to provide opportunities to update these items for their farms.

The potential influence of counter-cyclical payments, direct payments, and base acreage and payment yield updating provisions on agricultural production is not included in the estimated effects of the new legislation in this report because no research is available that provides quantitative measures of those effects. While those effects are likely to be relatively small, particularly compared with price- and production-linked coupled programs such as marketing loans, the magnitude of these effects is an empirical issue and a topic for further research.

Additional analysis of the possible effects of these types of programs is needed to more fully understand the scope of the effects of farm policies. Research issues needing further study include the role of risk in the agricultural sector, including the degree to which revenue risk reduction aspects of counter-cyclical payments may influence production choices; how farmers use government payments, particularly how increased cash flow and liquidity provided by direct payments (as well as by other payments) affect production, borrowing activity, and agricultural investment relative to nonagricultural uses; and how expectations of future program benefits influence current cropping choices through the potential for building program crop base acreage, and how such influences may differ depending on whether market prices are relatively low or relatively high.