FINDINGS

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# How Do Decoupled Payments Affect Resource Allocations Within the Farm Sector?

The U.S. and other industrialized nations subsidize producers of certain farm commodities with payments linked to commodity prices and production levels. These subsidy programs, which in the U.S. originated in the 1930s, were designed to insulate producers from fluctuations in market prices and raise farm household incomes. Under such a system, however, producers base their planting decisions for the subsidized commodities—which ones to grow, how much acreage for each, and the intensity of cultivation—not only on information about market values or costs, but also on government payments. Thus, in responding to distorted market signals, farmers may produce a different mix of commodities than they would with no market distortions. In the United States, interest in market liberalization and obligations under multilateral trade agreements have prompted policymakers to design and implement less distorting government programs.

One step in that direction is to "decouple" farm income support from prices or production. Efforts to decouple farm income support in the U.S. began in the 1980s, but the most sweeping changes were introduced in farm legislation in 1996 and 2002. These decoupled payments—originally called production flexibility contract (PFC) payments in the 1996 legislation—are lump-sum payments on eligible acres, where the per acre payments are based on historical plantings of program crops and yields, rather than on current market prices or production levels of the crops. Farmers have the flexibility to plant different crops or let their fields lie fallow, but face some land use restrictions. For example, acres enrolled in the program cannot be developed for nonagricultural uses.

Unlike coupled payments, decoupled payments directly change the income and wealth of a household, without distorting relative commodity prices. But questions about the payments' impact on the farm business and farm household well-being remain. Specifically, how much income do farm operators who rent land retain from decoupled payments, net of what they pay to landowners in increased land rents? How do farm households receiving decoupled payments allocate their increased income among consumption, leisure (decreased work hours), savings, and investments for the farm and off-farm sectors? Under what circumstances might income from decoupled payments affect agricultural production as well as the nonagricultural activities of farm households?

ERS researchers used a household framework as well as household-level data from USDA's Agricultural Resource Management Survey and the Census of Agriculture to analyze the effects of decoupled payments in two recent studies. A 2003 report described preliminary evidence that decoupled payments enhanced the well-being of participating farm households, enabling them to increase spending, savings, and investments with seemingly minimal distortion of U.S. agricultural production. A more recent report presents new analyses, including how land tenure arrangements influence the amount farm households receive from decoupled payments, and how decoupled payments influence markets for agricultural capital and labor.

### Land Rents Increase Less Than Per Acre Decoupled Payments

Approximately 60 percent of U.S. cropland enrolled in the PFC program in 1996 was leased by farm operators from nonoperator landowners. ERS research shows that, in 1992, a producer who rented cropland for cash paid a 21-cent premium per dollar of government payments received, while the same producer paid a 33-cent premium in 1997, 1 year after the PFC program went into effect. These findings suggest that decoupled payments had a stronger influence on land rental rates than do coupled payments, but also that the rise in land rents did not fully reflect the amount of government payments that a renter received. Most observers have assumed that decoupled payments increase land rents dollar for dollar. These alternative findings could indicate that land rental markets operate imperfectly and adjust slowly, and/or that PFC payments and associated land restrictions affect production in ways that reduce operator profits. At present, this finding remains a puzzle.

### Decoupled Payments Are Likely To Influence Investment Only During Severe Recessions

For any household—farm or nonfarm—an increase in income and wealth generally makes it easier to save and invest and may also increase the household's access to credit. Households choose among investment

options based on a comparison of their expected rates of return. Farm households may choose to increase onfarm investment, through purchases of equipment or other physical capital, if the expected returns to doing so are higher than the returns expected from off-farm investment opportunities. Since lump-sum decoupled payments do not directly affect either onfarm or off-farm rates of return, they would not affect onfarm investment or production levels through capital market channels as long as these markets are efficient and households can access credit or capital. Instead, these payments provide farm households with increased purchasing power to allocate among a variety of uses, including financial investment and consumption.

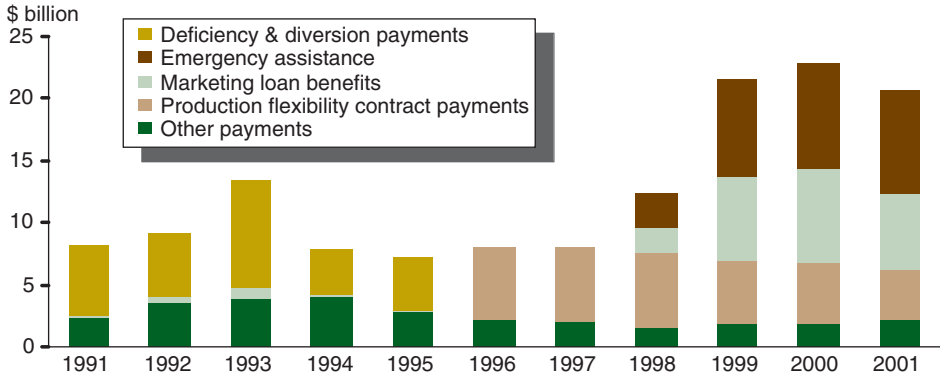
Financial capital markets are, however, characterized by imperfections that can induce creditors to restrict producers' access to capital or credit. In such cases, farm households that have limited access to credit may use the payments to increase onfarm investment. Research indicates, however, that farm investment patterns do not rely on farm cash income except in relatively rare circumstances, both for the sector as a whole and for individual farms. In particular, during severe farm recessions, capital market imperfections are associated with inefficiently low investment. In addition, survey data do not indicate that capital constraints have been an important determinant of U.S. production of program commodities in recent (nonrecessionary) years. These observations imply that decoupled payments may raise onfarm investment to more efficient levels in farm recessions.

**Onfarm Work Hours Are Not Changing Significantly**

On average, U.S. farm operators and other members of their families who participate in government programs allocate about 60 percent of their total work hours to working on the farm, and earn about 20 percent of their household income from farming. An increase in income could lead farm households to increase consumption of goods/services and leisure by spending less time working. ERS analysis of farm household labor allocations before and after the introduction of decoupled payments—taking into account the full range of factors affecting labor allocations—found no strong evidence that decoupled payments had a different effect on average hours worked, on or off the farm, than did traditional coupled payments. Both coupled and decoupled payments increased the hours worked on the farm and decreased the hours worked off the farm, when the model controls for the various factors that affect labor allocations. In the aggregate, farm households receiving decoupled payments did not significantly change their time spent working on the farm during the mid-to-late 1990s. Average off-farm work hours rose by a small but significant amount between 1996 and 2000—both for farm households that participated in commodity programs and those that did not—perhaps indicative of the influence of a strong economy during that time.

While the analyses of land, capital, and labor markets suggest that decoupled payments have the potential to indirectly influence farmers' decisions about resource allocation and agricultural production, the empirical evidence to date indicates that these impacts are ambiguous and therefore warrant further study. As farm programs evolve, so, too, will the analytical framework used to study the impacts of policy changes, leading to enhanced understanding of the impacts of these payments on the behavior and well-being of U.S. farm households.

***In 1996, the U.S. introduced a significant change in farm subsidies called production flexibility contract payments, which did not depend on current production or prices, continuing a trend toward decoupling farm income support that began in the 1980s.***




Source: ERS, based on data from USDA's Commodity Credit Corporation and Natural Resources Conservation Service. See also: www.ers.usda.gov/briefing/farmpolicy/19962001commodity.htm and www.ers.usda.gov/features/farmbill/2002glossary.htm.

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**This finding is drawn from . . .**

*Decoupled Payments in a Changing Policy Context*, by Mary Clare Ahearn, Mary E. Burfisher, Robert N. Collender, Xinshen Diao, David Harrington, Jeffrey Hopkins, Robert Hoppe, Penelope Korb, Shiva S. Makki, Mitchell Morehart, Michael J. Roberts, Terry Roe, Agapi Somwaru, Monte Vandeveer, Paul C. Westcott, C. Edwin Young, AER-838, USDA/ERS, November 2004, available at: www.ers.usda.gov/publications/aer838/

*Decoupled Payments: Household Income Transfers in Contemporary U.S. Agriculture*, edited by Mary E. Burfisher and Jeffrey Hopkins, AER-822, USDA/ERS, February 2003, available at: www.ers.usda.gov/publications/aer822/