



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search
<http://ageconsearch.umn.edu>
aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*



Severing the Link between Farm Program Payments and Farm Production: Motivation, International Efforts, and Lessons

Clayton W. Ogg and G. Cornelis van Kooten

Decoupling Farm Payments: Experience in the United States, Canada and Europe

Historically, farm program provisions distorted agricultural production and resource use, in turn affecting agricultural prices, trading partner relationships, levels of government support, and environmental quality. Recognizing this, the United States moved to “decouple” program payments from production in 1996, but it subsequently stepped back from this position in 2002 when it reestablished program yields and base acreages in certain payment formulas.

Although the EU and Canada have less experience with decoupling mechanisms, they are pursuing different and potentially useful options. In this paper, we review experience with decoupling in the United States, Canada and Europe, attempting to glean something about options for future farm policies.

Why Might We Want to Decouple?

Price-support payments often provide incentives for farmers to increase production, which typically involves expanded use of chemicals and cropping on marginal lands. Decoupling government payments from production eliminates incentives to overproduce. Decoupling also addresses depressed regional and global prices that are the result of overproduction in the major grain-growing regions of the world. This can be important both domestically and internationally. Domestically, reducing production incentives tends to reduce supply, which raises commodity prices and lessens the need for farm income support. Internationally, decoupling enhances compliance

with World Trade Organization (WTO) rules that encourage countries either to decouple—to sever the link between income support for farmers and production—or to reduce the level of support payments, with sanctions recommended against those countries that fail to achieve progress in this regard. Finally, decoupling initiatives address the domestic environmental damage that results when price-support programs encourage greater use of pesticides and fertilizers (which are pollutants), while decreasing the damage from increased conversion of marginal lands (including wetlands and other natural areas) to cropland as well as effect other environmentally sensitive practices (tillage intensity, irrigation, etc.).

Background

Initiatives to liberalize trade in Europe and North America have included modifications of the formulas used in making payments to farmers. In 1996, the United States adjusted the yield and base acreage used in computing farmers’ payments in ways that reduced their distorting effects on input use, trade, and the environment. A yield history and fixed-base acreage had already become a feature of Canadian and European Union (EU) agricultural support payments in 1991 and 1992, respectively. But when the EU undertook their decoupling initiative in 2003/04, some member states began to modify the base acreage used in their payment formula (Kelch & Normile, 2004), in a manner reminiscent of the United States’ backtracking on decoupling in 2002.

The similarities in approach make it relatively easy to describe US, Canadian and EU decoupling options and

compare their effectiveness, although subtle differences can greatly influence their effectiveness. The stakes are high because payments that encourage farmers to produce more will undermine world prices, pressure the domestic environment, and increase the cost of everyone's farm programs.

Recent Decoupling Initiatives in the United States, Canada, and the EU

We begin with the US experience, because the United States was first to attempt complete decoupling of the links between payments and farm production processes. Further, we find that Canada and the EU pursue options similar to those in the United States, so they face similar challenges.

Decoupling in the United States.

The United States attempted to decouple payment programs in 1996 by (a) freezing the yield history used in computing farmer payments (rather than basing payments on recent cropping history), (b) allowing planting flexibility (rather than requiring farmers who choose to participate to plant within their prior base acreage for all crops), and (c) permitting farmers to cease farming while still receiving payments.

Although the first option was implemented for nearly two decades prior to 1996 without major controversy, severing the link between farming and payments (the third option) proved difficult to accomplish politically, because it went against most people's sense of fairness—producers should be paid for producing something, not for sitting idly by. As a consequence, the idea of decoupling was looked upon by some with skepticism. In 2002, the United States allowed farmers to reestablish the

payment yields and/or base acreage used in certain payment formulas.

Decoupling in Canada. Canada's agricultural programs, at least in the West, are partly driven by the Canadian Wheat Board (CWB) marketing regime that bases quotas for eligible grains on farmed area and thus encourages farmers to cultivate as much land as possible (Schmitz & Furtan, 2000). In addition, the "Crow" transportation subsidy and feed freight assistance raised farm gate prices, leading farmers to expand cropland and farm more intensively. It was not until 2000 that the effects of the Crow subsidy and feed freight assistance were eliminated. Meanwhile, there has been a move to implement programs that enable farmers to remain eligible for CWB quota while converting some lands to a long-term conservation use (such as permanent pasture).

Canada replaced existing farm programs in 1991 with the Net Income Stabilization Account (NISA), which is based on a five-year average of recent net income, and the Gross Revenue Insurance Program (GRIP), which is based on a system of base acreage and yield history, much like the pre-1985 US approach. NISA is decoupled from the production decisions of farmers, because it is paid on a lump-sum basis, but GRIP bases payments on individual farmer's recent yields and base acreage, excluding pasture and forage crops, whereas other programs provide producers with fuel rebates and tax incentives. Such programs encourage greater input use and production to the detriment of the environment (van Kooten & Folmer, 2004; Schmitz & Furtan, 2000). Unlike the United States, Canada relies on subsidies rather than conservation compliance to counter adverse

effects of agricultural programs and promote good environmental land uses.

Decoupling in Europe. The framework for price and support policy in the EU, known as common market organizations (CMOs), was developed over the period 1962–1969. The 1992/93 MacSharry reforms were the first attempt to decouple agricultural payments from production, although their primary purpose was to reduce the overall level of support. The reforms sought to lower EU prices toward the world price, compensate farmers for the lower prices via an income payment, and impose land set asides on larger crop producers. Agenda 2000 deepened the MacSharry reforms and emphasized the environment and provision of public goods.

The decoupling initiatives in these reform packages were not very effective, as they were only implemented on the largest farms (because small farmers could not handle the reporting requirements); many countries simply lacked the needed governance structures to implement the reforms (Brümmer & Koester, 2004). The June 2003 Luxembourg reform attempts to address problems by moving away from using a base acreage, relying instead on a payment based on *past payments* (Kelch & Normile, 2004). This avoids the temptation for nations to reestablish their acreage base, which shifts over time in any event.

Effectiveness of Decoupling Options

What can we say about the effectiveness of decoupling initiatives across regions and approaches? In comparing the effectiveness of decoupling options, we consider options for (a) determining yields in payment for-

mulas, (b) providing planting flexibility, and (c) allowing payments on land no longer farmed.

Freezing Payment Yields. Hertel, Tsigas, and Preckel (1990) projected that continuing to keep payment yields frozen under the 1990 U.S. farm legislation would reduce US variable input use (including chemical use) by 8%, while benefiting farm incomes, reducing commodity program outlays, and reducing distortions in world prices. A key challenge identified in the analysis (but not addressed in the legislation) was the need to update payment yields, because farmers want payments to increase with actual yields, which tend to increase over time (although differentially across the country). They anticipated that if the Food, Agriculture, Conservation, and Trade Act of 1990 had indexed payment yields in each state, the mounting pressure to reestablish payment yields on farms (which occurred in the 2002 Farm Bill) could be mitigated. Addressing US payment yields by freezing them and then applying an index offers one of the least disruptive decoupling options, because payments are still linked to farm-level crop yields.

When the EU introduced their version of a commodity payment system for several major commodities, they employed a *regional* yield that was not tied to yields on any individual farm, thus avoiding from the outset the above problems associated with reestablishing payment yields. (Canada previously used regional yields in its crop insurance program, although that program is now part of GRIP, which does not use regional yields.) Using regional yields in payment formulas results in a partial decoupling of payments, as government payments to farmers do not

encourage them to apply more chemicals per acre to increase their future subsidy payments. (As noted above, the United States attempted something similar through its freezing of payment yields.)

The payment formulas discussed in our analysis constitute a major, but by no means the total, share of the EU, US, and Canada's potentially trade-distorting farm programs. Export subsidies and various other protectionist devices also continue to distort agricultural prices, production, and trade. However, recent moves toward a greater reliance on payments (especially in the EU), as opposed to export subsidies, enhance the opportunities offered by our three decoupling options. The need for support payments of any kind are lowered whenever countries reduce output (by decoupling and/or reducing levels of support), thereby encouraging higher global prices.

Allowing Planting Flexibility. In the US, environmental concerns that commodity programs allegedly encouraged monoculture of grain crops provided one rationale for the early emphasis on planting flexibility. Historically, soybeans were not a program crop, but were needed for their environmental benefits in a crop rotation with corn. In practice, however, granting farmers planting flexibility proved much less environmentally beneficial than hypothesized. According to Babcock et al. (1997), the US experiment with planting flexibility in the 1996 Farm Bill did lead to significant crop acreage shifts; these shifts included a 23% increase in soybean acreage, which provided additional opportunities for crop rotation with Midwestern corn, as expected. However, they found that soybeans also replaced 3 million acres of wheat in

Kansas and 800,000 acres of CRP land. Thus, one can conclude that the net effect of increased planting flexibility in the 1996 Farm Bill was only a modest gain for the environment (Babcock et al., 1997).

The MacSharry reform in Europe allowed considerable planting flexibility from the beginning, so the EU's payment system had some market-oriented features since the early 1990s. Planting flexibility increases efficiency because it allows farmers to plant the most profitable crops, thereby reducing the financial burden of agricultural support programs, but environmental benefits are less clear.

Allowing Commodity Payments on Land No Longer Farmed. Permitting farmers to exit agriculture and still receive government payments offers an important policy option, particularly in North America where agriculture is much more extensive (especially in the Northern Plains). Commodity payments have shifted the extensive margin of cultivation and increased output on marginal lands. In spite of earlier efforts to change this, the United States allowed farmers in 2002 to reestablish the base acreage used in certain payment formulas.

The problem in the EU is that member countries have flexibility to design their own country-specific approaches to decoupling; this may lead to payments on land that is no longer farmed in some countries, but not all. For example, individual countries may offer coupled payments that are allowed on up to 25% of the area for arable crops (Kelch & Normile, 2004). Some countries apparently favor further development of payment systems tied to an acreage base, following the US approach.

Unlike the United States, Canadian programs are weaker in address-

ing environmental concerns: They contain no Sodbuster or Swampbuster provisions, for example, so they have been implicated in a major loss of prairie wetlands and in the resulting decline of ducks, shorebirds, and other migratory bird species (van Kooten, 1993). As noted above, Canada has taken steps toward decoupling, but payments to farmers under GRIP and some other programs (usually “emergency” payments when prices are considered too low) are still based on area “under cultivation,” as is the case under the Wheat Board marketing system, which is similar to the approach used in the United States for decades.

Other Remedies

There are other ways to address programs’ tendencies to increase the acreage cropped that are relevant to the decoupling topic. The Conservation Reserve Program idles over a tenth of US cropland and is joined by Sodbuster and Swampbuster programs, all of which address the tendency for price supports to expand production onto marginal cropland—to shift the extensive margin of agriculture and encroach upon nature. The EU recently introduced a 10% set-aside on larger farms, which is similar to the proportion of cropland idled by the CRP in the United States (but not targeted to achieve environmental benefits), and the EU introduced a reserve for tree planting to combat greenhouse gases. Canada is also set to provide payments to farmers to plant trees to earn offset credits under Kyoto, although it is discovering that this may be more expensive than originally anticipated.

These green payment mechanisms may appease trading partners

as they compensate, to some degree, for the program-induced increases in area cropped. However, they do so at a cost. If programs initially were designed in a way that avoids encouraging farmers to put more land into crop uses, costs of cropland idling programs could be reduced or avoided.

So What Have We Found?

Although the United States achieved an early start in decoupling payment mechanisms, the United States stepped back from fully decoupling payments in 2002. It is our view that policy revisions are needed to allow a recommitment to decoupling and reap its benefits. Namely, we feel there is a need to (a) establish a formula for payment yields that advances with time but is not farm specific, and (b) allow farmers to receive payments even if they cease growing a crop.

Although the EU and Canada have less experience with decoupling, they pursue some relatively effective decoupling options. Canada’s NISA program is a step in that direction. The EU may still fail to achieve fully its goals related to decoupling because they allow member states considerable flexibility, and some of them are already moving toward a system of base acreage, which presumably would need to be reestablished in the future, as acreage shifts over time.

We conclude that the EU and North America have reached a critical juncture, as they have the opportunity to pursue relatively painless decoupling-based remedies to costly trade distortions and environmental problems caused by domestic agricultural policies.

For More Information

- Babcock, B.A., Campbell, T., Gasman, P., Hurley, T.M., Mitchell, P., Otake, T., Siemers, M., & Wu, J. (1997). *RAPS 1997: Agricultural and environmental outlook*. Ames, IA: Iowa State University Center for Agricultural and Rural Development.
- Brümmer, B., & Koester, U. (2004). Governance of the common agricultural policy in the new member states. *EuroChoices*, 3(2004), 18-22.
- Hertel, T.W., Tsigas, M.E., & Preckel, P.V. (1990). Unfreezing programs payment yields: Consequences and alternatives. *Choices*, Summer 1990, 32-33.
- Kelch, D. & Normile, M.A. (2004). *CAP Reform of 2003-04*. Economic Outlook Report from the Economic Research Service, WRS-04-07.
- Schmitz, A., & Furtan, W. H. (2000). *The Canadian wheat board: Marketing in the new millennium*. Regina, SK: Canadian Plains Research Centre.
- van Kooten, G.C. (1993). Bioeconomic evaluation of government agricultural programs on wetlands conversion. *Land Economics*, 69, 27-38.
- van Kooten, G.C., & Folmer, H. (2004). *Land and forest economics*. Cheltenham, UK: Edward Elgar.

Clayton W. Ogg is an economist with the United States Environmental Protection Agency. G. Cornelis van Kooten is professor and Canada Research Chair in the Department of Economics, University of Victoria. The views expressed are those of the authors.