

# EXPERIENCE WITH DECOUPLING AGRICULTURAL SUPPORT

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For most of the past half century industrial countries have had high levels of agricultural protection, provided by import tariffs, quantitative restrictions, and domestic subsidies. Among the many claimed objectives of these policies, boosting the income of small family farms is by far the most frequently cited (Winters 1989–90). Because most of this support is based on current output, input use, and prices, it also induces overproduction. Given the weight of industrial countries in the global trading system, the aggregate effect of such support is to depress world commodity prices, reducing the export shares of countries that do not protect their agricultural sectors. Such support is costly and often goes to unintended recipients, thus exacerbating rather than eliminating the presumed income inequalities that justified support in the first place.

Considering the harmful effects of such support on world markets and the mismatch between stated objectives and ultimate outcomes, its outright elimination is sometimes advocated. But societies have the right to transfer income to groups as they

deem necessary. Perhaps the only effective way to achieve socially acceptable and politically feasible reform is to decouple payments from current production levels, input use, and prices. Thus, the relevant question is how support can be given without creating negative effects for the rest of the world—how to increase farmers' incomes without distorting production and consumption.

This chapter analyzes the experience with decoupling, making a clear distinction between decoupling that replaces domestic support and decoupling that replaces border support. It reviews a number of one-time buyouts, the best form of decoupling, and looks at the externalities of decoupling, especially for middle- and low-income countries, in reducing poverty, instituting land title reform, and providing credit.

## **What Is Decoupling?**

Decoupling has different meanings to economists, policymakers, and trade negotiators. Some see it as a transition mechanism to a fully competitive sector.

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Others see it as another support program, with fewer production- and trade-distorting effects. Some use decoupling only to refer to programs for transferring income to producers; others use the term much more broadly, to include, for example, programs to improve the environment. Sometimes decoupling is assessed according to the policy's long-run impact on output through such factors as uncertainty, investment, and expectations.

Decoupling was discussed in the literature as early as 1945, when the American Farm Economic Association announced 18 awards for papers on "a price policy for agriculture, consistent with economic progress, that will promote adequate and more stable income from farming." Nicholls and Johnson (1946)—recipients of the first- and second-place awards—summarized the main findings of the award-winning papers. Several recommendations closely resembled decoupled support. For example (p. 281),

Cochrane presents a special formula for progressively smaller income payments for aiding producers in adjusting their operations from a support level to a free market situation. These declining payments would be based on production during 1939–41, so that the producer would not be "tied to commodity in surplus to receive a payment benefit." Thus, he could shift to some other product during the payment period without losing the specified payments.

Perhaps the first analyst to explicitly advocate decoupled support in U.S. agriculture was Swerling (1959). Two characteristics of Swerling's proposal are especially interesting. First, he advocated a safety net mechanism for agriculture, similar to safety nets in other sectors of the economy (such as unemployment insurance). Second, he proposed linking the benefits of the decoupled support to income declared in tax returns during the recent past (not to historical production or area). Specifically (pp. 179–80), he wrote:

Removal of this price stimulus is long overdue. . . . An income-insurance plan for farm-operators [should be in place] that include[s] the following elements: (1) . . . benefits will be related to income experience of the particular individual during the recent past; (2) the

purpose would not be to support income at artificially high levels but to prevent a severe temporary decline in individual income; (3) the right to benefits would attach to the person, not to farm land or the farm enterprise, and would accordingly not be transferable; (4) the benefit to be enjoyed by any individual would not exceed a modest maximum; (5) benefits would not be conditioned upon the production of particular commodities or even upon continued employment in agriculture. . . .

Another early decoupling proposal was put forward by Nash in Europe (1961, p. 188):

Instead of obstructing the withdrawal of farmers from an industry which cannot adequately reward them, . . . an unconditional payment [could be made] to all those at present engaged in farming, or to those of them deemed to be in need of compensation, calculated by the reference to the difference between the incomes now earned under the protective system and those capable of being earned under a system of free market prices. An annuity calculated in this way and payable for life to all engaged in farming, but not transferable to their successors, would, in theory at least, make it possible to bring the protective system to an end while fully making good the loss of income to its present beneficiaries. There is no doubt that compensation of this kind is feasible.

The proceedings of the workshop "Decoupling: The Concept and Its Future in Canada" contains numerous definitions of decoupling (Finkle and Cameron 1990). Consider the following two rather contrasting views. Van Donkersgoed (1988, p. 40), of the Christian Farmers Foundation of Ontario, defined decoupling as "a program in which eligibility is not linked to production, the production potential of resources or the production effort of a farm entrepreneur; rather eligibility is linked to stewardship farming practices, marketing, the maintenance of rural communities, diversified ownership of the assets of production, moderate-sized family enterprises and other rural, non-production valuables that add to the quality of Canadian life." Spriggs and Sigurdson (1988, p. 93), in contrast, simply stated: "In fact, a program to

eliminate subsidies would be the ultimate in decoupling. It is the only truly decoupled program that there is.”

Cahill (1997, p. 351) defines as fully decoupled from production a policy that “does not influence production decisions of farmers receiving payments, and that permits free market determination of prices (facing all farmers, whether or not receiving income support).” A policy is effectively fully decoupled if “the provision of the compensatory payment package results in production that, for any crop, does not exceed that level that would exist without compensation.” The Organisation for Economic Co-operation and Development (OECD 2000a) defines decoupling in a similar way.

Hennessy (1998) includes as decoupling payments triggered by ex post market or production conditions, as long as the payment level is not conditioned on an individual’s specific level of production. Disaster relief measures, for example, would be considered decoupled because they are not affected by the individual’s level of production.

Goodwin and Mishra (2002) argue that a fully decoupled payment must be fixed and guaranteed and thus is not influenced by ex post realizations of market conditions (such as low prices or area yields). This is the narrowest definition because neither payments nor the rules of eligibility and the base criteria can be changed. If a time limit is added to this definition, then decoupling simply implies a number of annual payments to producers. Where financial markets function efficiently, these bonds can be converted into a single payment. In such a setting, decoupling would consist of an administrative decision to remove distortions followed by a single payment—a radical policy initiative. In fact, a number of analysts have advocated a fundamental reform of the European Union’s Common Agricultural Policy (CAP), with the last step consisting of payment of a bond (see, for example, Beard and Swinbank 2001, Swinbank and Tangermann 2001, and Tangermann 1991).

### **The Politics of Decoupling**

Politicians are reluctant to subsume all agricultural policies into a universal social welfare program, including job retraining and the like, even though these types of programs to help small farmers would be ideal and truly compatible with World

Trade Organization (WTO) policy in being minimally trade distorting (as Swerling originally suggested in 1959). It is very difficult to end farm subsidy programs, however; there is always a bias to maintain current policies because politicians lose more support if they take away subsidies than they gain if they introduce new ones. Furthermore, governments like to concentrate the benefits of subsidies and diffuse the costs to as many people as possible in order to maximize political support. And small groups are better able to organize and control free riders. All this appears to make it inevitable that governments will favor commodity- or sector-based policies over all other forms of agricultural support. So, fully decoupled payments and one-time buyouts, even more than universal programs, have the political disadvantage of not being able to continue to favor incumbent farmers. They also look like corporate welfare, whereas trade barriers and price supports reduce visible taxpayer costs and hide the fact that large farms get most of the transfers. Politicians also lack the commitment mechanism to keep such policies in place—politicians are tempted to reintroduce support later in its original form or with new distorting programs.

Under many current systems, a complex web of policies, including payments not to produce, subsidies, and production controls, help to obfuscate the policies’ true nature in terms of who benefits and to what extent. Another class of subsidy programs, the whole farm insurance program used in Canada and the revenue stabilization programs used in the past, has the economic advantage of not singling out specific sectors. And because all farms are eligible, taxpayer constraints dilute the per farm benefits thereby reducing the political support for such programs. Thus Canada has eliminated perfectly functioning revenue insurance programs, and other countries are not rushing to adopt wholesale farm income insurance programs.

Politicians and farm lobbies capitalize on the fact that most voters know of at least one farmer, often a family member, who experienced severe adjustments in the past 50 years. Thus it is much easier to maintain the status quo of subsidies in agriculture. Politicians also play on insecurities related to food self-sufficiency in case of war, food safety issues arising because of new technologies and genetically modified organisms, and the multifunctional

benefits of farms in providing landscape amenities and rural livelihoods.

### **The Economics of Decoupling**

Decoupling can be viewed as two distinct transition mechanisms: one replacing domestic support and one replacing border measures. The key variable driving this distinction is the source of financing for the original support measures: consumers, taxpayers, or a combination.

Replacing domestic support measures such as production subsidies with decoupled support is straightforward in the small country case and can be shown to be Pareto improving. Instead of providing output-based subsidies, the government makes lump-sum payments to producers based on some historical criteria without any constraint or requirement on the current use of their resources. Under the lump-sum scheme, producers can receive higher payments because welfare losses (the so-called Harberger triangles) disappear. Taxpayers can also be better off if part of the efficiency gains is translated into lower taxes. Because both producers and taxpayers can be made better off, decoupling in the production subsidy case is clearly a Pareto-improving move.

Decoupling in the case of an import tariff, however, is more complicated as it involves eliminating tariffs, raising additional taxes, and distributing the tax revenues to producers. Producers are no worse off (they receive the same amount of support), consumers are better off (they pay lower prices), but taxpayers are worse off because they lose the tariff revenue and must finance the decoupled support. Assuming that welfare losses arising from border measures are higher than welfare losses arising from domestic subsidies, decoupling of border measures is welfare improving. It is not a Pareto improvement, however. Furthermore, while the removal of the import tariff implies welfare gains, introduction of the tax to finance decoupled support implies welfare losses. Alston and Hurd (1990, p. 155) contend the following:

Currently it is fashionable to argue for “decoupling” farm programs in the sense that income transfers should be achieved with minimal consequences for commodity markets. Along with the benefits from transparency, the benefits

from decoupling may be illusory. The issue here is whether the costs of distortions in commodity markets are necessarily greater than the costs of distortions introduced elsewhere in the economy to finance “decoupled” transfers.

Moschini and Sckokai (1994) claim that the welfare losses of raising new taxes to finance decoupling are unlikely to be larger than the welfare gains from decoupling. Beghin, Bureau, and Park (2003) estimate that in the Republic of Korea it costs taxpayers \$1.61 for every \$1 transferred to producers. Using a general equilibrium model, Parry (1999) finds that the efficiency cost of taxpayer-financed lump-sum transfers to agriculture equals 27 percent of the amount of the income transfer.

Since most of the support is at the border, decoupling is likely to be a complicated exercise with mixed outcomes. Although the costs of taxpayer-financed programs are shown to be significant, welfare gains depend on how decoupled programs are financed. But the general result from the public finance literature is that trade taxes have much higher inefficiencies relative to other forms of taxation or sources of revenue for farmers.

### **Experience with Broad Decoupling Attempts**

Early attempts at decoupling failed. The 1949 Brannan Plan in the United States, which proposed cash payments to farmers whose overall income fell below a certain level, was defeated in the U.S. Congress. Similarly in Europe, the Mansholt Plan of 1968, which advocated support in order to finance mandatory retirement for older farmers, also failed.

The first attempt at decoupling came in the United States with the 1985 Farm Bill, which shifted the base of support from current yields to historical yields (see timeline in table 5.1). The European Union (EU) partially replaced intervention prices with direct payments following the Common Agricultural Policy reform of 1992. Mexico replaced price supports with direct payments in 1994 with the introduction of the National Program for Direct Assistance to Rural Areas (Programa de Apoyos Directos al Campo, or Procampo). The United States replaced deficiency payments with decoupled support in the 1996

**TABLE 5.1 Chronology of Broader Decoupling and Recoupling Episodes, 1985–2004**

| Year | Country        | Policy change                                                                                                                                                                                                                                                                                                                                      |
|------|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1985 | United States  | 1985 Farm Bill introduces “frozen” government payment yields per acre.                                                                                                                                                                                                                                                                             |
| 1992 | European Union | Mac Sharry reforms of the Common Agricultural Policy reduce price supports and introduce direct payments linked to historical area planted (with “frozen” government payments for the output per hectare) or number of animals (but farmers still need to produce to receive payments).                                                            |
| 1994 | Mexico         | Procampo introduces payments based both on historical acres and yields up to 2008 with a phase-out of import barriers under the North American Free Trade Agreement, input subsidies, and activities of the state trading monopoly.                                                                                                                |
| 1996 | United States  | 1996 Farm Bill eliminates target prices, replacing them with decoupled historical entitlements, the so-called production flexibility contract payments, to end in 2002.                                                                                                                                                                            |
| 1996 | Mexico         | Base acres can be switched to other crops or enterprises, and rural development policy is launched to foster productivity.                                                                                                                                                                                                                         |
| 1998 | United States  | Emergency market loss assistance payments effectively reverse the 1996 Farm Bill.                                                                                                                                                                                                                                                                  |
| 2000 | European Union | Agenda 2000 extends, deepens, and widens the Mac Sharry reforms.                                                                                                                                                                                                                                                                                   |
| 2001 | Turkey         | Direct income support program reduces some administered prices and input subsidies. Only minor changes in border policies.                                                                                                                                                                                                                         |
| 2002 | United States  | 2002 Farm Bill extends production flexibility contracts, formalizes emergency payments as countercyclical payments, adds new crops to production flexibility contracts program, allows base acres and payment yields to be updated, increases price supports for coupled subsidies, and introduces three new crops to the coupled subsidy program. |
| 2002 | Mexico         | Target prices and input subsidies are reintroduced. Procampo remains largely unchanged.                                                                                                                                                                                                                                                            |
| 2002 | European Union | Mid-term review, resulting in June 2003 agreement to switch most direct payments to decoupled payments, with entitlements sold with or without land; level of payments and some support prices to decline in 2005–07.                                                                                                                              |
| 2004 | European Union | Decoupled payments are introduced for the so-called Mediterranean products (cotton, olive oil, and tobacco).                                                                                                                                                                                                                                       |

Source: Authors' compilations.

Farm Bill. More recently, Turkey replaced some price support and input subsidies with direct payments. In addition to broad decoupling programs, there have been numerous one-time buyouts, including New Zealand's exit grant in 1984, the buyout of Canada's grain transportation subsidy in 1995, and the buyout of the U.S. peanut marketing quota under the 2002 Farm Bill.

#### *Decoupling Efforts in the United States*

The budgetary outlays for most U.S. commodity programs are authorized by Congress (and subsequently approved by the president) every few years

through farm bills. There have been 20 such bills since the first one in 1929. The central feature of the New Deal farm programs of the 1930s was price supports achieved through taxpayer-funded production subsidies and supply controls (acreage set-asides, accumulation, maintenance, and disposal of public stocks). Payments were based on the difference between the target price set by the government and the higher of the market price or the price at which the government would value crops used as collateral for loans made by a public corporation. The total payment was equal to the yield per acre multiplied by a farm's eligible payment acreage (the amount of land devoted to cultivation of the crop

**TABLE 5.2 Composition of Agricultural Support in the United States, 1986–88 to 1999–2001**  
(US\$ millions)

| Category                  | 1986–88 | 1989–92 | 1993–95 | 1996–98 | 1999–2001 |
|---------------------------|---------|---------|---------|---------|-----------|
| Value of production       | 113,537 | 168,615 | 184,239 | 199,990 | 192,417   |
| Total support estimate    | 68,540  | 72,779  | 79,060  | 81,715  | 95,455    |
| Producer support estimate | 41,839  | 34,326  | 31,091  | 36,384  | 51,256    |
| Market price support      | 19,533  | 17,825  | 16,969  | 17,864  | 18,662    |
| Budgetary support         | 22,306  | 16,501  | 14,123  | 18,519  | 32,594    |
| Output                    | 2,919   | 510     | 241     | 1,644   | 9,285     |
| Input use                 | 6,516   | 6,574   | 6,003   | 6,088   | 6,877     |
| Area                      | 11,313  | 6,897   | 5,396   | 1,247   | 2,722     |
| Historical entitlements   | 0       | 0       | 0       | 6,647   | 10,085    |
| Input constraints         | 637     | 1,776   | 1,963   | 1,940   | 1,844     |
| Overall farm income       | 912     | 743     | 520     | 954     | 1,780     |

Source: OECD database.

in question). This portfolio of policy instruments was the primary means of price support for the major field crops for decades until the 1980s.

The Food Security Act of 1985 set a new trend for major field crops by reducing the role of acreage set-asides and public stockholding and moving toward decoupling, with a “freeze” on payment yields (farmers were paid on the basis of fixed output per acre regardless of what was actually produced). Payment yield was established for each farm by the Department of Agriculture, based on average yields in 1981–85.

Acreage set-asides and public stockholding were largely abandoned by the mid-1990s and eliminated soon thereafter with the introduction of the Federal Agricultural Improvement and Reform (FAIR) Act in 1996. FAIR also banished the target price used in calculating deficiency payments but maintained the lower fixed price, called the loan rate, which had triggered public stock purchases in the past. In place of the links between support, prices, and production, production flexibility contract payments were introduced. Participating producers received payments in proportion to what they had received during 1990–95 or would have received had they been enrolled. These historical benefits were in turn determined by a farmer’s historical production levels. Each participating producer received a fixed schedule of payments, which was to decline gradually through 2002. Although not specifically stated, it was implicitly assumed that the payments would end by 2002.

The effect of the 1996 Farm Bill on the structure of budgetary outlays is shown in table 5.2. It breaks the producer support estimate down into market price support (a measure of border protection) and budgetary support (a measure of domestic support). Budgetary support is further decomposed into support based on output and input use (considered as having a large impact on production and trade, or fully coupled support) and support based on area, historical entitlements, input constraints, and overall farm income (considered as having a smaller impact on production and trade, or partially decoupled support; for further details and definitions, see OECD 2000b).

Historical entitlements, which did not exist before 1996, represented more than a third of total budgetary support in 1996–98. They are exempt from disciplines in the WTO (they are in the Green Box; see chapter 3). Area payments declined from \$5.4 billion in 1993–95 to \$1.2 billion in 1996–98 and are also exempt from reduction commitments in the WTO (they are in the Blue Box). During these two periods, output payments under discipline in the WTO (in the Amber Box) also increased, from \$0.2 billion to \$1.6 billion, a reflection primarily of declining commodity prices and consequently increased loan rate payments.

Although payments were made on a crop-by-crop basis, planting was not required or restricted to any particular crop. Payments were tied to 85 percent of the fixed-base area (average of acres planted or prevented from being planted for



covered crops of wheat, feed grains, rice, and cotton) and fixed-payment yields. Because the payments were independent of current production, farmers had far greater flexibility to make planting decisions (or to not plant at all). Farmers were free to allocate their land to any crops on the “contract acres” except fruits and vegetables, but they had to maintain their land in “agricultural use.” Thus producers were to depend more heavily on the market and also bear greater risk from increased price variability.

The FAIR Act was meant to be a transition toward a new policy environment with a diminished government role in commodity markets. Commodity prices declined sharply in the late 1990s, however, triggering three major policy events that reversed much of what had been accomplished by the FAIR Act. First, emergency payments were introduced, approximately equal to 50 percent of decoupled payments in 1998 and 100 percent of decoupled payments in 1999, 2000, and 2001. These were designated as non-product-specific support and so escaped reduction under the *de minimis* proviso of the WTO. Second, when market prices fell below the loan rate, the government extended the marketing loan program by issuing loan deficiency payments, which had the same economic effects as the previous deficiency payment scheme. Third, the 2002 Farm Bill was introduced, increasing several loan rates, introducing three more crops into the loan rate scheme, and allowing base acres and payment yields to be updated and soybean acreage to be added to the base. The bill formalized the emergency payments into a new countercyclical scheme in which payments vary with price but not with quantity.

The emergency measures introduced in 1998 (and later the 2002 Farm Bill) changed the structure of the budgetary outlays considerably. Between 1996–98 and 1999–2001, historical entitlements increased by more than 50 percent (from \$6.6 billion to \$10.1 billion, area payments increased twofold, and payments based on output increased more than fivefold (see table 5.2), implying that support is less decoupled now than it was after 1996.

### *Decoupling Efforts in the European Union*

The principal vehicle of support in the European Union has been the Common Agricultural Policy.

Following the Spaak Report of 1956, which suggested that agriculture requires special treatment, the Stresa Conference of 1958 outlined CAP’s three guiding principles: free flow of agricultural commodities within the common market, preference to member states, and common financing. CAP, formally put in place in 1962, had multiple objectives: increase agricultural production, ensure a fair standard of living for the agricultural community, stabilize markets, guarantee a regular supply of agricultural commodities, and ensure reasonable prices for consumers. The objectives were to be achieved through domestic price supports, export subsidies, and common trade barriers. The first and last objectives were fully met within a few years, but concerns were soon raised about excess production and the unsustainable level of CAP budgetary requirements if policies did not change.

Reform of the CAP was attempted in 1972, following the recommendations of the 1968 Mansholt Plan. The plan proposed, among other reforms, lump-sum transfers to 5 million farmers to retire them from farming and reduce active farmland by 5 percent. The Mansholt Plan, the first attempt to decouple, was never implemented.

The first major reinstrumentation of the CAP took place in 1992. The reform, known as the Mac Sharry reform after the EU’s Commissioner for Agriculture, together with the Blair House Accord of the United States, paved the way for the signing of the Uruguay Round Agreement on Agriculture in 1994. For cereal, oilseed, and protein crops and for beef and veal, price supports provided by import levies or export refunds were reduced, and farmers were compensated with direct payments. For crops, payments were based on 85 percent of historical plantings (with a paid minimum area set-aside requirement, a further paid voluntary set-aside of up to 30 percent of historical area, and a base acre limit for payments set at the national or regional level). The area-payment rates varied by crop type, and the set-aside payments were initially higher but are now equal. The only requirement is the land had to be set aside or planted in crops or temporary grass. Small-scale farmers producing less than 92 tons of cereals annually are exempt from set-asides and receive “all cereals” payments irrespective of crop planted (representing 25 percent of area but 70 percent of farmers).

**TABLE 5.3 Composition of Agricultural Support in the European Union, 1986–88 to 1999–2001**  
(US\$ millions)

| Category                  | 1986–88 | 1989–92 | 1993–95 | 1996–98 | 1999–2001 |
|---------------------------|---------|---------|---------|---------|-----------|
| Value of production       | 214,849 | 275,770 | 286,658 | 291,427 | 237,990   |
| Total support estimate    | 109,654 | 138,927 | 133,050 | 129,328 | 112,628   |
| Producer support estimate | 93,719  | 117,097 | 116,519 | 111,966 | 99,343    |
| Market price support      | 80,257  | 93,282  | 76,084  | 64,989  | 60,863    |
| Budgetary support         | 13,446  | 23,327  | 40,279  | 47,468  | 38,693    |
| Output                    | 5,009   | 6,769   | 2,999   | 3,945   | 3,644     |
| Input use                 | 5,025   | 7,135   | 8,133   | 8,446   | 6,540     |
| Area                      | 2,701   | 6,987   | 24,326  | 29,419  | 24,733    |
| Historical entitlements   | 0       | 559     | 1,466   | 1,007   | 597       |
| Input constraints         | 711     | 1,877   | 3,356   | 4,650   | 3,178     |
| Overall farm income       | 0       | 0       | 0       | 2       | 0         |

Source: OECD database.

Between 1986–88 and 1993–95, budgetary support in the EU increased threefold, from \$13.4 billion to \$40.3 billion, while border support declined from \$80 billion to \$76 billion (table 5.3). Most of the increase in budgetary support was attributable to area payments and, to a more limited extent, to historical entitlements and input constraints (designated Blue Box payments and so exempt from reductions in the WTO).

Following the 1992 reforms, the level of support remained unchanged, but its structure changed considerably. For example, while estimated producer support averaged \$117 billion for 1989–92 and 1993–95, border protection support declined from \$93 billion in 1989–92 to \$76 billion in 1993–95. Support based on output declined from \$7 billion to \$3 billion, and area payments increased from \$7 billion to \$24 billion. Thus the 1992 CAP reform was a good step toward decoupling.

Under Agenda 2000, price support to crops declined, direct payments increased and were realigned across all crops, and reference yields were changed in some countries. A push toward more investment in rural development was also made. A large transformation has occurred away from border protection and input subsidies to direct payments. Total support has been declining, especially in grains and oilseeds. More than the increase in budgetary allocations, which remains moderate compared with other expenditures, the growing

importance of rural development seems to follow from the official reference to it as the “second pillar of the CAP.”

The European Union now has greater flexibility to overhaul any policy element in light of changes in market developments, costs, enlargement, WTO (and other) trade negotiations, food crises, and other pressure for reform. The budget for Agenda 2000 did not include any provision for extending direct payments to farmers in Eastern Europe, making reform a requirement. Meanwhile, the European Union has launched free trade negotiations with Mercosur, and it established the Everything but Arms initiative with low-income developing countries. Because Mercosur includes some major agricultural exporting nations and the Everything but Arms program will increase imports, especially for sugar, rice, and bananas, further reform of the CAP is necessary.

Recent food crises underline the need for reform, sometimes for more regulation and controls over production practices, including animal welfare. Against this background, the European Commission’s midterm review of Agenda 2000 proposed a set of reforms that include further decoupling, continuing set-asides, and more cross-compliance rules with statutory environmental, food safety, and animal health and welfare standards.

Current EU compensatory payments still influence farmers’ decisions on how much land to plant.



This results not only because farmers are obligated to produce cereals on the base acres to receive the payments, but also because area payments in the European Union are made on an aggregate, fixed-area basis that is set at the national or regional level. Individual farmers do not have a base area—just eligible acres for which they receive payments and have area set-asides. If the regional base area is exceeded, the per-unit subsidy is prorated downward proportionately for all farmers in the region.

Because the prorating occurs on the total area planted ex post, farmers have an incentive to overplant in order to maximize their share of fixed budget outlays or to defend against share erosion due to overplanting by other producers. This means that the area payments are fully coupled to plantings because individual farmers are not penalized for their own decisions to overplant. Area payments with a national base area are therefore not a limit on total acres planted.

For EU cattle, the headage payments under “production-limiting” arrangements are anything but production limiting because farmers are allowed to keep more cattle than are eligible for payments, so there is no absolute production control, and the number of eligible animals is not limited to the number on farms prior to the introduction of payments in 1992. Where numbers of animals are below the maximum that could be claimed per farm, farmers have an incentive to expand their stock up to the limits on which payments are made. Thus incentives in the program have been to encourage initial expansion of animal numbers and then to lock production in at around the levels that are consistent with the maximum number of animals eligible for payments. Those numbers reflect the very high levels of support for several decades as well as the incentives inherent in the headage payments.

The CAP reform agreement of June 2003 requires decoupling at least 75 percent of payments in the arable sector and at least 50 percent in the beef and sheep sectors. Dairy premiums will be added into the single farm payment after 2007. The decoupled single farm payment will be based on average payments claimed over the three-year reference period, 2000–02, and will be paid per eligible hectare of land. Entitlements can be sold with or without land. Member states are offered some flexibility in the year they begin and in fully or partially

decoupling within the limits for each sector. They may also give up to 10 percent of the payments for environmentally friendly farming and restrict entitlement trading within a region. All payments are to be reduced 3 percent in 2005, 4 percent in 2006, and 5 percent in 2007. Support prices will also decline. Payments will be conditional on compliance with various measures, including environmental and acreage set-asides.

### *Decoupling Efforts in Mexico*

About a quarter of Mexico’s population depends on agriculture, which contributes 5 percent to gross domestic product (GDP), down from 9 percent in the early 1980s. According to the OECD, total transfers to agriculture averaged \$7 billion annually during 1999–2001, \$5.7 billion of which went to producer support. This support corresponds to \$1,000 per full-time farmer equivalent and \$53 per hectare, both considerably lower than the OECD averages of \$11,000 per farmer and \$192 per hectare. About 29 percent of producer support went to maize, 21 percent to milk, and 13 percent to sugar.

Traditionally, Mexico’s state agricultural enterprise, Conasupo (Compania Nacional de Subsistencias Populares), has been heavily involved in the marketing, transportation, storage, and processing of most agricultural commodities. Maize, beans, and wheat, by far the most important agricultural commodities, have been heavily subsidized through a system of guaranteed prices. The government also set prices, which were usually announced before planting decisions were made and were uniform across the country and across seasons. Conasupo bought unlimited quantities at the guaranteed prices. Hence, producers knew in advance the price they would receive and shifted production to crops with the highest degree of relative protection rather than with the highest profitability according to world prices. The poorest peasants did not benefit from guaranteed prices since they formally marketed little or none of their production.

In 1994 Mexico introduced Procampo, a decoupled support program to provide income support to grain and oilseed producers—about 90 percent of all Mexican farmers. Procampo replaced the old scheme of guaranteed prices. By supporting farmers’ incomes rather than production of specific

commodities, Procampo was expected to make production and trade less distorted. It is also distributionally more attractive than the earlier guaranteed price program because poor subsistence farmers are eligible for payments and there is a ceiling of 100 hectares on the amount of land that a single farmer can use to claim payments.

Government credibility became a major issue for Procampo. Initially, some producers did not believe that the government would actually implement the program. Fearing increased taxation, they underreported land allocated to eligible commodities. The government's turnaround, requiring that land be allocated to eligible crops after initially delinking payments from the current use of land, likely further discredited the government. (In 1996 the government increased the number of eligible crops.) The macroeconomic environment also played an important role. When Procampo was in the design phase, most commodities were highly protected, but the 1994 devaluation of the peso sharply reduced protection rates.

Despite these shortcomings the program has at least two features that improve income distribution (sometimes at the cost of more inefficiency). First, decoupled area payments are given for a minimum of one hectare, even if the actual size of a farm is less than one hectare. Second, land reforms allow small farms to rent approximately 10 percent of their land to larger farmers. These features can have a significant positive impact on income distribution compared with historical guaranteed prices.

Few small farmers benefited from that system because they were often net buyers, sold products at distress prices at harvest, or could not take advantage of price supports because they were not integrated with market price centers because of high transaction costs.

Just as the United States did, however, Mexico reintroduced its price support in 2002. New countercyclical payments, similar to those that the United States introduced in its 2002 Farm Bill, took effect with the 2002–03 marketing year. The payments were to equal the difference between the target price and the sum of the market price and Procampo payments. The payments would apply to eight commodities. In addition, a new common subsidized price for electricity used for agricultural production was introduced (estimated to cost \$0.6 billion annually.)

The most visible change in Mexican agricultural policies has been the move from support based on input use to support based on historical entitlements, under Procampo (table 5.4). Border measures are still the dominant component of support, accounting for 64 percent of producer support during 1999–2001.

Mexico's decoupled payment program encountered several problems. The program was announced well in advance of the registration of eligible producers. The lag allowed many farmers to increase the amount of land in production of the eligible commodities and thus to increase their future payments. So rather than moving resources

**TABLE 5.4 Composition of Agricultural Support in Mexico, 1986–88 to 1999–2001**  
(US\$ millions)

| Category                  | 1986–88 | 1989–92 | 1993–95 | 1996–98 | 1999–2001 |
|---------------------------|---------|---------|---------|---------|-----------|
| Value of production       | 15,412  | 25,209  | 26,186  | 27,033  | 30,328    |
| Total support estimate    | 1,287   | 8,121   | 7,558   | 4,858   | 6,999     |
| Producer support estimate | –266    | 5,718   | 5,060   | 3,190   | 5,694     |
| Market price support      | –1,710  | 4,025   | 2,918   | 1,495   | 3,625     |
| Budgetary support         | 1,444   | 1,692   | 2,142   | 1,695   | 2,068     |
| Output                    | 1       | 26      | 52      | 4       | 110       |
| Input Use                 | 1,442   | 1,663   | 1,308   | 676     | 721       |
| Area                      | 0       | 3       | 6       | 62      | 61        |
| Historical entitlements   | 0       | 0       | 776     | 925     | 1,112     |
| Input constraints         | 0       | 0       | 0       | 0       | 0         |
| Overall farm income       | 0       | 0       | 0       | 27      | 63        |

Source: OECD database.

to more efficient uses, the scheme, initially at least, moved more resources into production that was already inefficient. Moreover, because land rights among landowners, tenants, and sharecroppers were unclear, it was difficult to determine who was entitled to payment.

### *Decoupling Efforts in Turkey*

The agricultural sector in Turkey employs 43 percent of the labor force and contributes 16 percent to GDP, down from 26 percent in 1980. Total agricultural support in Turkey reached an annual average of \$9.7 billion during 1999–2001, \$6.5 billion of it in direct producer support, according to the OECD (table 5.5). Of that amount, \$5.1 billion was transferred through border measures, the dominant component of agricultural support in Turkey. At 5.1 percent of GDP, Turkey's agricultural support rate is the highest of all OECD countries and almost four times the OECD average of 1.3 percent. This support corresponds to \$162 per hectare, compared with the \$192 per hectare average for OECD. Sugar accounts for 13 percent of estimated producer support, milk for 11 percent, and wheat for 10 percent. The main policy instruments for agricultural support have been border measures, administered prices, input subsidies, and budgetary payments. With a per capita GDP of a little over \$3,000, this support imposes considerable budgetary strains on the economy.

Responding to the high cost of support and its distortionary effects, Turkey embarked on a major agricultural policy reform program in 2001 with World Bank assistance (World Bank 2001). A main component of the reform was to replace administered prices and input subsidies with annual direct income support payments. In addition, farmers were granted a one-time payment to cover the cost of transition from overproduced and highly subsidized commodities to other commodities.

Income support payments were set at \$100 per hectare, but even this low level of transfer implied an eventual annual expenditure of \$1.9 billion. The upper limit, initially set at 20 hectares, was raised to 50 hectares in 2002. As in Mexico, to allow small subsistence farmers (who otherwise received no support) to benefit from the program, a minimum payment was set for farmers cultivating below a certain threshold.

A number of hard choices had to be made following the decision to implement direct income support payments. A key decision related to records (as was the case in Mexico). A pilot program was set up in several districts in four provinces to test two methods of developing a registry for producers. One method, applied in two provinces, used the existing land registry records. A second method, applied in the other two provinces, was based on certifications by the chief of the village, the council, and the local farmers associations. Payments were

**TABLE 5.5 Composition of Agricultural Support in Turkey, 1986–88 to 1999–2001**  
(US\$ millions)

| Category                  | 1986–88 | 1989–92 | 1993–95 | 1996–98 | 1999–2001 |
|---------------------------|---------|---------|---------|---------|-----------|
| Value of production       | 18,343  | 26,859  | 29,158  | 34,068  | 29,458    |
| Total support estimate    | 3,092   | 7,212   | 6,027   | 10,705  | 9,649     |
| Producer support estimate | 2,779   | 6,127   | 4,675   | 7,791   | 6,522     |
| Market price support      | 1,884   | 4,784   | 2,712   | 5,710   | 5,093     |
| Budgetary support         | 895     | 1,344   | 1,962   | 2,081   | 1,429     |
| Output                    | 11      | 30      | 242     | 104     | 337       |
| Input Use                 | 885     | 1,314   | 1,720   | 1,978   | 957       |
| Area                      | 0       | 0       | 0       | 0       | 0         |
| Historical entitlements   | 0       | 0       | 0       | 0       | 136       |
| Input constraints         | 0       | 0       | 0       | 0       | 0         |
| Overall farm income       | 0       | 0       | 0       | 0       | 0         |

Source: OECD database.

made on a per hectare basis in two installments for up to two hectares.

While the pilot benefited 9,681 farmers including many small farmers, at a cost of \$2.3 million, numerous problems were encountered during implementation. Land registries contained unclear descriptions, shared titles did not specify the amount of land that each person owned, and many landowners who had inherited their land did not possess deeds. Registration procedures were also unclear, and various “producer certificates” were issued without uniform standards. Many sharecroppers were declared ineligible for participation because they lacked official documents. There were also cases of false claims, for nonfarm land or land not in agricultural use.

Other problems were related to the design and implementation of the pilot. Farmers received inadequate information about the program, and consequently many failed to apply for benefits (especially in remote villages). The agencies involved in the pilot also received inadequate training and information. And farmers were not given enough time to apply for the program.

### **Experience with One-Time Buyouts**

In addition to broad decoupling attempts, countries have conducted numerous one-time buyouts in the last two decades. These buyouts have been much more successful than the broader decoupling efforts.

#### *The 2002 U.S. Peanut Quota Buyout*

The U.S. peanut program goes back to 1934, when peanut producers agreed to reduce their acreage in return for payments. The program failed to reduce output and was revised in 1941 by introducing individual acreage allotments and penalties for farmers who exceeded the allotments. The allotments were not enforced, however. The Agricultural Act of 1949 established support prices for peanuts, and until 1978 all peanuts from approved allotments were guaranteed the support price. The program again ran into financial difficulties primarily because of the introduction of high-yielding varieties. Beginning in 1978 peanut quotas were set annually and producers received support for quota peanuts only. During 1979–82 farmers had to have

both quantity and acreage allotments to be eligible for payments. The acreage allotment was abandoned in 1982. Quantity quotas were tradable, with some exceptions. Imports were banned.

The program again ran into trouble as the costs of the program grew enormously. Peanut manufacturers pressed for reforms because they wanted access to lower-priced peanuts, while the introduction of the North American Free Trade Agreement (NAFTA) allowed peanut products to enter duty free from Mexico and Canada.

Some modifications were made in 1996, but the biggest change came with the 2002 Farm Bill, with the government deciding to buy out the marketing quotas created in 1978. Eligible quota holders are to be compensated for the lost value of the marketing quota during fiscal years 2002–06. Quota holders can elect to receive payment in five equal installments of \$0.11 a pound per year times the actual quota allotment for the 2001 marketing year or to receive the undiscounted sum of all the payments in the first year, equal to \$0.55 a pound. Given that an average effective quota for 1998–2000 is 5.6 million tons, the buyout is expected to cost \$181 million a year, or \$1.4 billion for the five-year period. During the same period, the annual value of U.S. peanut production was \$3.1 billion (8.79 million tons times \$355 per ton). In addition to the quota buyout, peanut producers will be compensated by receiving support from the other provisions of the 2002 Farm Bill (decoupled and countercyclical payments). Several factors led to this change in the existing peanut program: pressure from imports under NAFTA, opposition by other industry groups, and enormous increases in the fiscal costs of the program (see chapter 12 in this volume).

#### *Canada's Buyout of the Railway Subsidy (“Crow Rate”) for Grain Shippers*

Canada's Crow Rate program (named for Crowsnest Pass in the Rocky Mountains) goes back to 1897, when Canadian Pacific Railway was given a subsidy of \$3.4 million to build a line between Alberta and British Columbia. In exchange for the subsidy, Canadian Pacific agreed to charge grain farmers 20 percent less than the (then) prevailing rates. The 1925 Railway Act made the subsidized rates statutory. Over the years the Crow subsidies were extended to numerous commodities. Because

of the higher prices received by western grain farmers created by the transportation subsidies, value-added industries (especially livestock production), moved to central and eastern Canada where grain prices were lower (Klein and Kerr 1995).

In 1995 the Canadian government decided to terminate the program, which was becoming fiscally unsustainable. To ease the transition, a one-time payment of C\$1.6 billion was made to eligible farmers. An additional C\$300 million was invested in a more efficient grain handling and transportation system. The one-time payment was spread over two fiscal years and made to owners of prairie farmland with eligible crops grown in 1994 and summer fallow land in 1993, adjusted for a productivity factor, distance factor, and provincial allocation factor. Eligible crops were those that were eligible for subsidies under the Western Grains Transportation program. There were no restrictions on how the payments were used, and they were treated as a capital gain rather than as current income, a concession valued by the OECD at an estimated \$0.6 billion.

The outcome has been positive overall. The lower grain prices lifted a constraint on value-added industries, encouraging entrepreneurship and innovation; led to diversification into specialty crops; lowered land prices; and exposed the industry to trade challenges. The change also brought Canada into compliance with international trade agreements.

### *The 1984 New Zealand Exit Grant*

Before 1984 New Zealand's farmers were receiving generous support—in some years as high as 40 percent of the value of production. In 1984 the government abolished the subsidies. With the economy almost on the brink of bankruptcy and facing deteriorating external markets, inflation, and historically high interest rates, the government eliminated almost 30 different production subsidies. Although the end of agricultural subsidies took place in conjunction with overall deregulation of the economy and reduced input costs, currency appreciation and low commodity prices during 1985–87 made the transition stressful.

To ease the transition, the government provided one-time exit grants to farmers leaving the land, equivalent to about 66 percent of their previous

annual income. Farmers with extremely low incomes were temporarily entitled to social welfare income support. Farmers were also offered limited financial advice. There was no substantive effort to soften the effects of the change. Despite early predictions that large numbers of farmers would leave the land, only 1 percent of farms failed, with significant adjustments occurring in the form of off-farm employment and changes in input use and output mix.

Land prices, which had been kept artificially high by the subsidies, plummeted with their removal. Marginal land reverted to bush, and subsidy-driven land management problems ended. Now farmland values have more than recovered as farm profitability has been restored. Farmers reduced costs and focused on producing higher-value products, where profitable. Many farmers restructured their debts and continued farming, adjusting farm practices to reduce input costs. With investment decisions now subject to commercial and good farming disciplines, agricultural input suppliers were forced to become more competitive, also improving the competitiveness of the agricultural sector.

Since 1986–87 the value of economic activity in New Zealand's farm sector has grown by more than 40 percent in constant dollar terms, and agriculture's contribution to the economy has risen from 14.2 percent of GDP in 1986–87 to 16 percent in 1999–2000. With the removal of farm subsidies, GDP growth went from 1 percent in 1986 to the current annual average of 5.9 percent. New Zealand has around 80,000 farm holdings. Sheep and beef farms account for 20 percent of the number of farms, and dairy farms for 18 percent. Horticulture, forestry, cropping, and rural tourism also contribute to the rural sector, which employs 11.4 percent of the work force. About 80 percent of New Zealand's farm outputs are exported, accounting for more than half of New Zealand's merchandise exports.

### **Assessing Decoupling**

The movement toward decoupled agricultural policies is undeniably a step in the right direction, reducing trade distortions and increasing world prices for developing countries' exports. But how much movement has actually occurred? And what



have been the net effects on resource use, efficiency, and trade distortions?

The rate of agricultural protection in OECD countries has declined, while the share of domestic support has increased. Total direct support to agricultural producers as measured by estimated producer support averaged \$235 billion in 2000–02, 63 percent of it from border measures. Most support is concentrated in a few sectors (milk, meats, and sugar).

Although the absolute level of producer support has remained fairly constant, taxpayer-financed subsidies paid directly to farmers have increased significantly. From 1986–88 to 2000–02, domestic subsidies to farmers rose 60 percent, with large-impact programs (output and input subsidies) increasing moderately compared with the substantial increases in so-called smaller-impact programs (subsidies for land area and number of animals, decoupled historical entitlements, and payments based on input use restrictions and overall farm income). Payments based on area planted and number of animals have increased the most, followed by historical entitlements. Several countries, however, have made little progress in reforming the composition of support away from border support to domestic support (among them Japan and Switzerland), while others have not needed substantial reforms (many members of the CAIRNS Group).

As for reductions in trade distortions, experience in the decoupled programs described above has been mixed. The few countries studied here have moved away from border support to domestic support and to less distorting domestic support. Although there is evidence of a reallocation of resources across agriculture as a result, the decline in total output and increase in world prices have been modest.

In addition to the uneven distribution of “coupled” subsidies (less in major field crops, more in sugar and livestock), other factors help to explain the lack of significant reductions in output. Eligibility rules have changed, and expectations about future policies and dynamic considerations affect current production decisions because producers develop expectations about future assistance based on past government actions. Experience shows that imperfect decoupled programs still distort trade, especially when decoupled payments are substan-

tial. Large payments can have risk reduction effects that lead to increased output. Direct payments also help cover fixed costs, allowing farmers to cross-subsidize production at market prices. Direct payments can affect farmers’ investment and exit decisions if they are facing constraints in capital and labor markets. Direct payments allow banks to make loans that they otherwise would not and allow farmers with specialized skills to stay in agriculture.

The primary motivation for decoupling is to compensate farmers for the move to free markets by providing transitional adjustment assistance. This also makes the programs politically more palatable and transparent. Ideally, compensation programs would be universal (open to all sectors in the economy, not just agriculture) or at least non-sector-specific within agriculture. A simple and minimally distorting scheme would be a one-time unconditional payment to everyone engaged in farming or deemed in need of compensation that is nontransferable, along the lines of the one-time buyouts discussed earlier.

However, because a one-time buyout is an unlikely outcome (unless it is well-targeted in one sector), specific attention should be given to time limits, harmonization with other support programs, government credibility, and constraints on input use (Baffes and de Gorter 2003 provide a detailed discussion of these conditions along with WTO’s potential role on decoupling). Unless these aspects are properly addressed, decoupled programs are likely to have the same detrimental effects as other subsidy programs.

Most important, programs should be strictly limited in duration. The European Union and Turkey have no limit; the United States had (at least implicitly) one in the 1996 Farm Bill but violated it three years later. Mexico’s reform had a time limit, which so far has not been extended. A time limit helps to ensure that payments are made for adjustment purposes only.

If there are other (coupled) support programs, the decoupled program may not eliminate the incentives to overproduce. All four decoupling cases examined here either left other coupled support programs in place or added new ones.

To maintain government credibility and reduce uncertainty, eligibility rules need to be clearly defined and not allowed to change. The time period



on which payments are based, the level of payments, and the sectors covered should all remain fixed. Updating bases and adding crops create a government credibility problem, making the decoupling policy inconsistent over time. If governments have the discretion to change eligibility criteria and payments as market conditions change, these commitments will not be viewed as binding. Farmers, meanwhile, will change their production decisions to reflect this, thus undermining decoupling.

Support to specific sectors within agriculture should be in the form of taxpayer-funded payments. There should be no requirement of production. Land, labor, and any other input should not have to be in “agricultural use.”

Experience shows the difficulty of designing effective decoupling schemes. But strict criteria are required to minimize direct trade distortions because sector-specific decoupled support can still affect output indirectly, through wealth effects and lessened constraints in credit and labor markets. One way to improve the performance of decoupling schemes might be to have the WTO specify the conditions; this approach would avoid countervailing duties by other countries.

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