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# Review

## American Agricultural Policy and the 1990 Farm Bill\*

Laurie Erdman\*\* and C. Ford Runge\*\*\*

The United States (U.S.) government recently finished its five year ritual of farm legislation. In general, the 1990 Farm Bill, or the Food, Agriculture, Conservation and Trade Act of 1990, extends most of the program features of its predecessor, the Food Security Act of 1985 (FSA). The recent bill continues a 57 year old tradition represented by loan rates, target prices, deficiency payments, base acres and yields, quotas, production controls, marketing loans, and other devices which support prices and income in return for retiring acres. However, the bill introduces several features that move it incrementally in the direction of "decoupling", and continues the trend set in 1985 of adding new environmental restrictions on farm practices.

The recently passed Farm Bill was shaped by four forces; these forces will continue to shape U.S. farm policy throughout the 1990s. First, the rising budget deficit compelled Congressional agriculture committee members to decrease the cost of their programs. Second, a call for more open agricultural markets by the Bush Administration coupled with the budget constraint made smaller and more flexible crop acreage bases the most attractive way to achieve incremental decoupling. Third, recent scares of pesticides and agricultural chemicals on or in food and groundwater have led to rising concerns over the impact of agriculture on the environment. Fourth, the Uruguay Round of trade negotiations was an important consideration in drafting the first farm bill of the 1990s.

### Background — The Food Security Act of 1985

The Food Security Act of 1985 provides a good background for the 1990 legislation since it differs only slightly. In 1985, the Reagan White House attempted substantially to reduce the role of government in agriculture, citing the need to decrease budget costs and to return "market orientation" to agricultural programs. Neither objective was fully achieved; although the 1985 bill reduced loan rates and helped to expand export markets, it did so at great cost. In 1986, at the high water mark of agricultural spending, the cost of farm price and income support programs rose to \$26 billion.

One result of the administration's push to make agriculture more market oriented was the "50-92" provision of the 1985 bill. This program allowed farmers to set aside acreage or plant a non-program crop on 50 per cent of their historical base acreage while receiving 92 per cent of their deficiency payments. Its objective was to "decouple" the farmer's planting decisions, on 50 per cent of their base acres, from government payments. The similar "0-92" provision allowed producers to enter up to 100 per cent of their permitted acreage into conserving uses, and still receive 92 per cent of their deficiency payments. These provisions, which affected a relatively narrow set of programs in the 1985 bill, were conceptual forerunners of more comprehensive decoupling efforts proposed during the 1980s, and implemented more fully in the 1990 bill.

Pressures to augment exports and decrease rising budgetary costs from accumulating commodity stocks also led in 1985 to the creation of the "marketing loan", which has remained an object of much affection on the part of commodity groups, although its benefits (clearing excess inventories) are more than offset by its cost when the crops involved are major export commodities. To the extent that the use of marketing loans results in larger U.S. production and depressed internal prices it also imposes internal domestic resource misallocation costs.

Imposed in 1985 on cotton and rice with discretionary authority for use on wheat, feed grains and soybeans, the marketing loan allows producers to

\*This study was supported by a grant from the Northwest Area Foundation, St. Paul, Minnesota.

\*\*Graduate Research Assistant, Department of Agriculture and Applied Economics, University of Minnesota.

\*\*\*Associate Professor and Director, Center for International Food and Agricultural Policy, University of Minnesota.

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repay their non-recourse loans at a rate below the loan rate when world prices are lower than the loan rate. A close cousin to the European Community's (EC's) export restitution, the marketing loan is a payment that effectively covers the difference between the domestic support price and the world price. This device discourages producers from forfeiting their commodity to the Commodity Credit Corporation (CCC), thus keeping government commodity stocks down, and prevents the U.S. support price from acting as a floor for world market prices. In 1990, the marketing loan concept was extended to soybeans, and will be further extended to coarse grains and wheat if certain provisions tied to an unsuccessful GATT round become operative (see below).

Also established in 1985, ostensibly to combat decreasing U.S. world market shares, was the Export Enhancement Program (EEP). The program gives generic certificates to exporters that are redeemable for CCC-owned commodities. The certificates enable exporters to sell certain commodities to specified countries at prices below those of the U.S. market. While the program has received criticism concerning its effectiveness in increasing exports and farm incomes, this criticism has failed to curtail its use, and it remains politically popular with the U.S. Congress. Bailey (1989a) found that in 1987-88, EEP was responsible for only an additional ten per cent of U.S. wheat exports (or ten per cent "additionality") compared to what would have been shipped without EEP. The EEP has also been criticised because of the "cumbersome layer of company bids and CCC bonus bushel authorisations between our [the U.S.] normally efficient private sector exporters and their customers overseas" (Paarlberg 1990).

The effectiveness of EEP in increasing farm incomes has also been questioned. When the limited "additionality" of the program is weighed against its cost, it seems to be a very questionable mechanism of farm income support. For example, between 1985 and 1987 \$1.24 billion of CCC government-owned wheat was given away under the EEP to increase U.S. wheat exports by 305 million bushels. This is a per bushel cost of \$4.08 (Aus\$210/tonne), compared to an average U.S. Gulf export price during the same period of \$3.16 (\$163/tonne) (Coughlin and Carraro 1988). It would have been

more cost effective to destroy the surplus wheat and simply pay farmers the difference. The ineffectiveness of EEP in achieving U.S. farm income increases says nothing about its highly destructive impacts on world markets. While ostensibly aimed at the EC, the real victims have been grain exporting countries such as Australia, Canada, and others who have suffered the price declines it helped to cause.

While taxpayers bear the cost of EEP, the program does little to augment exports and farm income, especially in periods of tight market situations. The program has, however, been shown to be more effective in years of excess world supply. For example in 1986/87, \$204 million in EEP certificates were issued resulting in \$491 million in additional wheat export revenues. However, over \$1 billion of EEP issuances in 1987/88, when wheat exports expanded considerably, resulted in a mere \$330 million of additional wheat export revenues (Bailey 1989a, 1989b).

The effectiveness of EEP is measured in two ways. The first, "additionality", measures the "increase in U.S. exports above what would have occurred in the absence of the program" (Brooks *et al.* 1990). The second measure, "export efficiency" is "the increase in exports due to the EEP...divided by the total volume of EEP shipments" (Crowder 1989). The inability of EEP to generate large volumes of sales is not impressively supported by either of these measures. Estimates of additionality range from 2-3 per cent by Hillberg (1988) to 20 per cent by Bailey (1989b). Export efficiency estimates, however, range from 10 per cent by Hillberg (1988) and Bailey (1989a) to 70 per cent by Bailey (1989b).

Neither the efficiency of EEP in achieving its goals nor its untoward effects on grain exporters outside the EC are of much concern to Congressional interests, who find the program plays well with those farmers and traders that it benefits. Given the regional basis of Congressional representation, these broader costs get little consideration when Congressional incumbents and aspirants are considering whether to support export subsidies. After all, what difference does only ten per cent additionality make if the taxpayers as a whole are footing the bill?

The 1985 bill also marked the major entrance of environmental lobbyists into the process of drafting farm legislation. These groups were partially successful in their efforts to improve the impacts of agriculture on the environment, although many of their most cherished programs have been undercut by traditional agricultural interests. For example, the 1985 Conservation Reserve Program (CRP), familiar to many older students of American agriculture in the form of its predecessor, the Soil Bank, authorized the U.S. Department of Agriculture (USDA) to pay producers up to 50 per cent of the cost to establish permanent vegetative cover on environmentally vulnerable land, while renting this land from farmers for ten years, often at levels twice or more the going rental rates in the county. These rental payments are paid on "highly erodible" cropland which is converted to erosion-preventing cover crops. An underlying motivation for the CRP was to retire acres in corn during 1985, when surpluses were high, leading many of the converted acres to provide modest, if any, erosion-reduction benefits (Taff and Runge 1988). The acreage goal of the CRP was 40 to 45 million acres (16 to 18 million hectares) by 1990. As of 1989, 34 million acres (14 million hectares) have been converted with an estimated soil erosion savings of 678 million tons (667 million tonnes) (USDA 1990a). The 1990 bill continues the CRP, but criticisms over its failure to target highly vulnerable lands have made an impact, and new provisions were added to try to achieve better environmental effects.

Also established in the 1985 bill were the sod- and swamp-buster programs. The programs were established to discourage conversion of highly erodible land and wetlands. Under the sod-buster program, producers lose all future eligibility for deficiency payments and other USDA program benefits if highly erodible grassland or woodland is used for crop production without appropriate conservation measures. The swamp-buster program similarly causes eligibility for USDA programs to cease if a producer converts wetland areas to cropland. A related environmental addition to farm policy in 1985 was "conservation compliance". It requires producers with highly erodible crop land to implement an approved conservation plan by 1990. To maintain eligibility for federal program benefits the plan must be completed by 1995. Again, failure

to comply leads to loss of eligibility for program benefits.

Together, the "death penalty" loss of benefits under conservation compliance, sod- and swamp-buster provisions, have been criticized as ineffective, despite their draconian appearance. The reason for their ineffectiveness is that they are likely to be undercut precisely when they are most needed, due to decisions by administrators and legislators who view the penalties involved as excessive. An important feature of the program is that they are interpreted and enforced by local committees acting on behalf of USDA. At the local level, where the offending farmer is likely to be well-known to committee members, a perceived lack of proportionality between the punishment and the damage makes it particularly difficult to impose the "death penalty" of loss of all payments. To date, only a handful of such penalties have been handed down, and many have been overturned on appeal. The National Wildlife Federation, after seeking access to USDA records under the Freedom of Information Act, found that as of April, 1989, "there are only 26 producers in the entire United States who have actually lost benefits as a result of the swampbuster violations which occurred between December 23, 1985 and April 15, 1989" (quoted in Hayden 1990, p.583).

In short, what may appear in Washington to be effective environmental regulations appear to many farmers as misguided and ineffective measures unrelated to farm-level incentives to produce (signals also sent from Washington). One obvious amendment to the provisions would be to impose mandatory financial penalties (fees) for lack of conservation compliance as well as sodbusting and swampbusting on a graduated basis, depending on the number of acres affected and the degree of damage. These fees could either be subtracted from deficiency payments or (since many farmers receive few if any such payments) simply assessed through the EPA or Department of the Treasury, entirely outside the USDA enforcement apparatus. By graduating penalties to fit the magnitude of the damage, and divorcing them from both commodity programs and the USDA, environmental goals would be more realistically and effectively advanced, while reducing the total burden of penalties on farm level competitiveness.

## The 1990 Farm Bill

Drafted amidst widespread farm financial stress resulting from declining export markets, farm cost increases, and falling land values, the 1985 bill helped (together with a rapidly weakening dollar) to rebuild exports and halt the slide in land values. The costs were enormous. As the land market bubble burst, billions of dollars in phony wealth evaporated, and even huge infusions of federal dollars (\$26 billion in farm program payments in 1986 alone) were insufficient to prevent many farm foreclosures. Yet by 1988, aided by drought (and additional drought relief payments) net farm income was rebuilding, achieving record highs in 1987, and again in 1988 (USDA 1989).

The changes to the 1985 bill that would be implemented in the 1990 Act were based on four forces. The **foremost** was the concurrent budget talks. With an estimated budget deficit of \$161 billion in 1990 and the threat of across the board budget cuts under the so-called Gramm-Rudman law, Congress was forced to cut farm program spending as part of the larger deficit reduction plan. The Balanced Budget and Emergency Deficit Control Reaffirmation Act of 1987 mandated deficit targets of \$64 billion in 1991 and zero by 1993. If a deficit reduction plan was not submitted in time, the Amendment called for "sequestration," or equal cuts of all eligible programs, with agriculture prominent among the eligible candidates. The need to decrease farm program costs to meet deficit goals was thus the first force driving the 1990 debate.

The **second force** driving the 1990 bill was a by-product of the need for deficit reduction, coupled to the greatest of all political imperatives: re-election. How could costs be trimmed in a way that was least painful to politicians facing races every two or six years? Obviously the political decision to supplement farm income conflicts with cost reduction since farm income can be raised only through higher administered price supports or lower costs. Agricultural costs are hard to lower because technology improvements do not occur easily and without large expenditures. Yet higher prices must come from domestic taxpayers, since the international market is too competitive and domestic demand too inelastic (Allen 1990). The result was a

compromise known as "flexibility". Flexibility was an extension of the "0-92" and "50-92" provisions of 1985 to include other acreage "bases".

The "flexibility" debate of 1990 occurred in essentially two phases. The first was an exercise in political fantasy in the spring and early summer, in which the members of Congress indulged the wishes of a variety of commodity groups with promises of increased levels of support. During the fantasy phase, the administration issued its own version of a wish-list, a green-coloured document detailing its proposals for a whole farm base, or Normal Crop Acreage (NCA) scheme, together with a variety of other more-than-incremental proposals. The NCA proposal would have merged all existing crop bases and established a single payment determined by cropping history. In effect, the NCA scheme was a form of near-total decoupling, since farmers could produce whatever program crops they chose on the NCA acres. Rather than decoupling, the word chosen to characterise the NCA proposal was "flexible base".

The second phase of the farm bill process was driven by budget realities, during which most of the fantasies (though not all) were laid to rest both in Congress and at USDA. As the "budget summitteers" flailed away in attempts to conform to the Gramm-Rudman deficit reduction targets, it became evident that even major attempts to staunch the flow of red would not contain the hemorrhaging federal budget, especially as recession deepened. Agricultural spending was, however, a virtually unanimous candidate for cuts, and as the need to eliminate roughly \$13.6 billion from agricultural commodity programs over five years emerged from the budget talks, it dictated that the agriculture committees and USDA save money while saving seats.

Since target prices are visible political numbers, and had been the focus of much of the fantastic promises made by incumbents seeking re-election, the least politically damaging way to find budget savings was by reducing the number of base acres in the major budget programs (feed grains and wheat) that were eligible for deficiency payments. This budget pressure dovetailed (though not perfectly) with the idea of "flexibility" which had underpinned the administration's argument for NCA. Since total flexibility under NCA was nei-

ther necessary to achieve budget targets nor desirable to many commodity groups and their supporters in Congress, a "triple-base" emerged as a natural compromise.

The triple-base acreage concept continues the idea of splitting the historical crop acreage into permitted and idle acreage. Idled or reduced acreage is mandated under the Acreage Reduction Program (ARP) and must be complied with to receive government payments. Permitted acreage is then divided into a base for program crops which continue to receive payments, and a "flexible base," set at 15 per cent of total for 1991. This flexible acreage can be planted to any program crop that is not a "fruit or vegetable". The main effect on crops planted is likely to be an increase in oilseeds (sunflowers, canola) and more soybeans. The political bargain was: "we will give farmers flexibility, and they will surrender a portion of their deficiency payment guarantee." Farmers are forced to make greater use of market signals to make planting decisions, although only for "flex" acres and the limited number of crops allowed on them.

While much else besides was done or undone in the 1990 farm bill, the "triple-base" was at its heart, and was driven primarily by budget pressures, rather than deeply felt attraction for a clear step in the direction of decoupling. Such a step it was, however, giving the administration a relatively strong hand going into the GATT meetings, where it could claim virtue for having moved in the direction of its proposed safety net.

The significance of this move in the direction of flexibility, despite the many conditions surrounding it, is potentially far reaching. Besides the federal budgetary savings resulting from smaller bases (see below), a more flexible farm policy, if continued, will lead over time to more general decoupling. As a leading consulting group noted, "Policies that facilitate flexibility would result in significantly lower production costs due to improved yields and lower input costs" (Abel *et al.* 1990).

The **third force** driving the 1990 bill was the environmental movement, which gained strength between 1985 and 1990. As 1990 approached, the diverse environmental lobby sought solidarity in connection with several key objectives, focusing

especially on agricultural chemicals and groundwater contamination, together with expansion of the CRP. While other issues were raised, such as the illogic of subsidizing irrigation water when agriculture had become a perennial oversupplier, they remained in the background.

One of the several concerns of environmental groups was the incentives farm programs give producers to overuse chemicals and neglect soil conserving practices. A variety of case studies indicated that deficiency payments made to specific crop bases increase and even encourage the use of chemicals in agriculture by restricting rotations with other crops and placing premiums on extra high yields (see Young and Painter 1990). By offering deficiency payments for corn, and not soybeans, the government tells the farmer to plant corn and to minimize rotations with legumes, substituting fertilizer nitrogen instead. This leads to reduced diversity in cropping patterns and encourages production of chemically intensive crops (Reichelderfer and Hinkle 1989). Wheat and corn now account for over 50 per cent of all nitrogen fertilizer applications in the U.S. (*The Economist* 1989). Furthermore, the lack of government payments to livestock production discourages mixed production of livestock and crops. When farmers decrease livestock production in relation to crops they increase their dependence on purchased fertilizer nutrients instead of manure nutrients from livestock (Creason and Runge 1990). The structure of farm programs thus aggravates the negative environmental impacts of agriculture.

While deficiency payments are criticised for their direct effects on decreased diversity of agricultural operations, the U.S. income support programs also encourage chemical use in a secondary way. Deficiency payments are equal to the payment rate times permitted acreage times county yield, unless farmers can demonstrate a historical yield greater than the county's. If this is the case they can be paid on this higher yield. As farmers try to establish a high historical yield to receive larger government payments, they use excessive amounts of chemical fertilisers and pesticides. The 1985 Farm Bill froze county yields while continuing to allow farmers to use proven yields based on a five year average ending with 1985, where the high and low are excluded. The 1990 Farm Bill allows the Secretary

of Agriculture to base deficiency payments on the 1990 program yield or the most recent five year average excluding the high and low. The latter option is a continuation of the 1985 law since the most recent average is the 1981-1985 average yield excluding the high and low. This freezing of yields to 1981-1985 levels only modestly discourages the overuse of chemicals, all other things equal, since farmers still register their yields with the government in case yields are unfrozen.

The impact of the current Uruguay Round of trade negotiations on the farm bill debate was the **fourth force** affecting the 1990 bill. It was more subtle than that of the budget or environment. Under the auspices of the General Agreement on Tariffs and Trade (GATT), negotiators in the Uruguay Round were perceived as potentially affecting what the U.S. farm bill could do in terms of restricting trade and subsidizing agriculture. The U.S. had taken a strong liberal stand in the Uruguay Round and could not be perceived to be completely out of step in its domestic legislation. This did not, however, prevent the 1990 bill from adopting a variety of illiberal measures, continuing many more, and threatening to *raise* trade distorting subsidies if the Uruguay Round failed.

### The Resulting Bill

Although the 1985 and 1990 farm bills were very similar, their differences were shaped by the four forces discussed above. (See Tables 1 and 2 for a comprehensive summary of the changes). While each of these four forces shaped the 1990 U.S. farm bill individually, they also interacted. The ideas discussed in Congress for a NCA and triple-base, for example, have not only budget but trade and environmental implications as well. Greater flexibility in planting allows farmers to take advantage of cropping patterns, like corn-soybean rotations, without jeopardising their historical corn base. Total flexibility would eliminate the incentive to protect crop bases and allow farmers to pursue more environmentally sound practices. The flexibility concept is also consistent with the U.S. GATT proposal of decreasing agricultural support.

The pressure to decrease spending on farm programs resulted in a cut of \$13.6 billion over five years, or from \$54.4 billion to \$40.8 billion over

1991-96. Cost reductions were achieved through a combination of shrinking crop bases and some user fees. In addition to the triple-base program, user fees were imposed on sugar, wool, mohair, peanut and tobacco farmers.

While a paper of this length precludes commodity-by-commodity analysis, a word about the dairy sector is in order.<sup>1</sup> Both the 1990 farm bill and the budget reconciliation act contain provisions which are significant for the dairy sector. Support prices are not to fall below \$10.10/hundredweight (\$4.58/100 kilograms) (for 3.67 per cent milk) for several years. And the producer assessment, while only 5 cents/hundredweight (2.27 cents/100 kilograms) in the first year, could rise substantially for producers that expand production. This latter provision allows a mechanism for extracting payments in the event supply exceeds demand, and may be exercised if output continues to drift upward.

If the experience of the 1990 bill does not discredit "flexibility", then even greater steps can be taken in the future to decouple payments from production, to reduce acreage set-asides, and to loosen requirements forbidding non-program crops from being grown, so that the real advantages of NCA can be realised. One area where the 1990 bill fulfilled growers' fantasies beyond all expectations was the sugar regime, which despite a negative GATT panel ruling, emerged not only unscathed but arguably enriched from the legislative process. Soybeans, which had been held up for years as a model of "market orientation", threw in the towel and sought the protection of a marketing loan, which is in essence no different from the EC's restitutions, although it is set in such a way as to do the soybean grower little good. Having compromised on principle, the soybean growers failed to bring home much of a prize.

How does the "triple-base" actually work? The program allows producers to "flex" 15 per cent of their crop base acreage to other allowed crops while protecting the base they are paid on. However, the triple-base program excludes all fruits, vegetables, potatoes and dry beans from eligibility. Crops planted on this 15 per cent are eligible for non-

1. An excellent briefing on a commodity-by-commodity basis is USDA (1990b).

<b>Table 1: General Features of the 1985 and 1990 Bills</b>		
	<b>Food Security Act (FSA) of 1985</b>	<b>Food, Agriculture, Conservation and Trade Act of 1990</b>
Crop Base Acreage	Five year average of acreage per crop.	Same as FSA with 15% of base designated as flexible and not eligible for deficiency payments.
Deficiency Payments	Difference between target price and market price or loan rate, whichever is higher, times acreage and yield.	Same as FSA except market price based on 12 month average, not 5 months.
Marketing Loans	Cotton and rice producers repay loans at lower rate if world price falls below loan rate. Discretionary for wheat and feed grains.	Program extended to soybeans, sunflowers, flax, canola, rapeseed and mustard seed.
Price Support Payments	Producers take out non-recourse loans with the CCC, using commodities as collateral. Loan rate set between 75 and 85% of five year moving average market price.	Loan rate must now be set at no less than 85% of five year moving average market price. Rate cannot be set more than 5% lower than previous year's rate.
Farm Program Payment Limits	Commodity program payments limited to \$50,000 per person and \$100,000 for disaster payments. Limits exclude loans and purchases, loan deficiency payments, and inventory reduction payments.	Same as FSA, except payment limit to honey producers falls from \$250,000 to \$125,000 over four years.
Federal Crop Insurance Program	Subsidized insurance program on 50 crops varying by county.	Federal Crop Insurance Corporation to review new types of policies.
Supply Control	Acreage reduction, set-aside programs and discretionary paid land diversion.	No change from FSA.



Market Stabilization of Perishables	Use of Section 32 funds to encourage consumption of commodities by purchase, export and diversion programs.	No change from FSA.
Marketing Agreements and Orders	Allows producers to promote orderly marketing and to collectively influence price or quality of certain commodities.	No change from FSA.
Disaster Payments	When substantial loss creates economic emergency and crop insurance is insufficient.	No change from FSA.
Grain Reserves	Grains are put in FOR and CCC under non-recourse loan price support program.	No change from FSA.
Dairy Policy	CCC buys dairy products, supply is reduced through diversion and termination programs and 41 marketing orders oversee distribution and pricing.	Same as FSA, except limit on government purchases and fees assessed on producers and processors.
Export Subsidies	EEP and Export Credit Guarantee Programs subsidise sales with CCC commodities.	If no GATT agreement by June 30, 1992, an additional \$1 billion is to be spent on subsidies and marketing loans are to be instituted on wheat and feed grains.
Conservation Reserve Program	Convert highly erodible crop land to conserving, non-commercial use by offering annual rental payments.	Extends enrollment period to 1995.
Wetlands Conservation	Prohibit USDA program benefits to producers that convert wetlands to cropland.	Smaller penalties for violation of "swamp buster" program. Creates Wetland Reserve Program to restore and attain long term easements for wetlands.

Wilderness Conservation	Not specified.	Provides cost share assistance for production plans which improve wildlife habitat.
Water Research and Management	Provide plans and assistance to state and local governments to protect ground and surface water quantity and quality.	Creates program that offers incentives to adapt production practices that reduce the release of agricultural chemicals.
Chemical Standards	Not specified.	Farmers required to keep records on use of restricted pesticides.
Rural Community Assistance	Changes criterion for receiving water and waste facility loans and grants and guarantees loans made to non-profit rural development and finance corporations.	Creates Rural Development Administration, expands grant program and waste disposal systems, and provides funds for rural communication networks.
Part-time Farming Assistance	Maintains FmHA Small Farmer Training and Technical Assistance Program.	Nothing specified.
Rural Credit	Requires more FmHA guaranteed loans, adds joint farming operations to FmHA eligibility and studies need for insurance to protect FCS.	Cuts direct FmHA loans by 75 % and increases guaranteed loan program funds.
Food for Peace	Makes commodities available through long-term credit, as donations for emergency relief and authorizes food for development projects.	Commodities to be made available on multi-year basis. Title III deleted and replaced with Food for Development program.
Other Foreign Food Assistance	Food for Progress created to support countries moving to market economies.	Food for Progress extended to assist middle income and emerging democracies through private volunteer organisations and non-profit organisations.

Food Safety	Continues current inspection of meat and poultry, applies U.S. standards to imported poultry and calls for study of product purity and inspection regulations.	Same as FSA.
Agricultural Production Research	Continues National Agricultural Research, Extension and Teaching Policy Act and creates Technology Development Research Program to develop technology for use on small and medium-sized farms.	Increased Agricultural Research Service Program funds. Programs for Supplemental and Alternative Crops Research extended. Established Agricultural Science and Technology Review Board.
Environmental Research	Creates Agricultural Productivity Research program which stresses low-input sustainable agriculture research.	Pilot projects on Integrated Pest Management are established. National Institute for Alternative Agricultural Products is established.

**Table 2: Commodity Specific Features of 1985 and 1990 Bills**

	<b>Food Security Act of 1985</b>	<b>Food, Agriculture, Conservation and Trade Act of 1990</b>
Barley	Non-recourse loans and deficiency payments on barley base acreage if comply with ARP <sup>1</sup> . Three year FOR loans. <sup>2</sup> CRP set-aside. <sup>3</sup> Export Enhancement Program. <sup>4</sup>	Bases market price on feed barley, with malt barley being assessed 5% of the target price. Market price for deficiency payments moves from 5- to 12-month average. 15% of barley base must enter the triple-base program. <sup>5</sup>
Corn and Sorghum	Non-recourse loans and deficiency payments on corn and sorghum base if comply with ARP. Three year FOR loans. CRP set-aside. Export Enhancement Program.	Market price for deficiency payments moves from 5- to 12-month average. 15% of corn or sorghum base must enter the triple-base program.
Cotton	Non-recourse loans and deficiency payments with ARP compliance. CRP set-aside. Marketing loan program offers lower loan repayment rate and issues CCC certificates to cover differential for upland variety. <sup>6</sup>	Reduced acreage can be planted to minor oilseed or experimental or industrial non-program crops. 15% of cotton base must enter the triple-base program.

<sup>1</sup> Acreage Reduction Program requires producers to reduce planted acreage to be eligible for CCC non-recourse loans and deficiency payments.

<sup>2</sup> Farmer Owned Reserve non-recourse loans given for three years on stored wheat and feed grain. Grain is not released until market price reaches the release price.

<sup>3</sup> Conservation Reserve Program lets farmers contract to take erodible land out of production for payment.

<sup>4</sup> Export Enhancement Program subsidizes exports with generic CCC commodity certificates.

<sup>5</sup> Triple-base program requires farmers to "flex" 15% of their base acreage to other program or non-program crops. Base acreage is protected and the crops planted on the "flex" acreage is not eligible for deficiency payments.

<sup>6</sup> Marketing loans allow producers to repay non-recourse loans at levels below the support price when loan rate is above world price.

Dairy	CCC supports prices through purchases of dairy products. Marketing orders regulate prices and provide blend price based on milk usage. Section 22 import controls. <sup>7</sup>	Government purchases limited to 7 billion pounds, with assessments being charged to cover cost of purchases beyond this limit. Producers and processors are subject to an assessment per hundredweight.
Fruit & Vegetable	Marketing orders and agreements manage supply through allotments, allocations, reserve pools or market flow controls. Orders also control quality and support marketing.	Marketing orders and agreements are continued.
Honey	Non-recourse loan program to producers and marketing cooperatives with repayment rate below support price.	Decreases \$250,000 payment limit to \$125,000. A service fee of 1% was also established.
Oats	Non-recourse loans. Optional target prices. Three year FOR loans. Limited cross-compliance exemption if comply with ARP. <sup>8</sup>	Market price for deficiency payments move from 5- to 12-month average. 15% of oat base must be put into triple-base program.
Peanuts	Peanuts sold under marketing quota or as additional peanuts for crushing or export. <sup>9</sup> Section 22 import quotas. Loans available to grower associations.	Continues program yet adds 1% service fee.
<p><sup>7</sup> Section 22 allows the President to restrict imports by quotas or fees if imports interfere with Federal price support programs.</p> <p><sup>8</sup> Cross-compliance requires that farmers whom participate in a major program for one crop must meet program provisions for other major crops which they farm.</p> <p><sup>9</sup> Marketing quotas represent USDA estimates of domestic and export needs and restricts the amount of the commodity producers can sell at the support price.</p>		

Rice	Non-recourse loans and deficiency payments if comply with ARP. Marketing loans available. Exports promoted by PL 480 <sup>10</sup> , GSM-102 <sup>11</sup> and TEA <sup>12</sup> . CRP set-aside.	Reduced acreage can be planted to minor oilseeds or experimental or industrial non-program crops. 15% of rice base must go into triple-base program.
Rye	Non-recourse loan program. CRP set-aside.	Market price for deficiency payments moves from 5- to 12-month average. 15% of rye base must go into triple-base program.
Soybeans	Non-recourse loans. Discretionary marketing loans. CRP set-aside. Exports promoted by credit guarantee programs, PL 480 and EEP.	Marketing loan established. Service fee of 2% of loan rate will be charged.
Sugar	Non-recourse loans made to processors if producers are offered the price. Import quotas are set to achieve a market Stabilization price which avoids loan forfeitures.	Loan level maintained at 18c/lb. Market service payment of 1% to be assessed on processors.
Tobacco	Producers are eligible for CCC loans if they comply with marketing quotas, acreage allotments and pay assessments to cover program costs. Tariffs on imported tobacco.	Same as FSA except for 1% service fee.

<sup>10</sup> PL 480 or Food for Peace authorizes long term credit sales at low interest rates or donation of commodities to developing countries.

<sup>11</sup> GSM-102 is one of two programs which guarantees the credit of export customers. This program is for short term (3 years) credit, while GSM-103 is for long term (3-5 years) credit guarantee.

<sup>12</sup> Targeted Export Assistance program gives generic certificates in payment for targeted promotion activities.

Wheat	Non-recourse loans and deficiency payments paid on wheat base acreage if comply with ARP. CRP set-aside. Exports promoted with EEP and credit guarantee programs.	Market price for deficiency payments moves from 5- to 12-month average. 15% of wheat base must go into triple-base program.
Wool and Mohair	Payments based on bringing national average producer return up to parity based support price. Quotas on wool imports.	Program continued with payment limit decreased from \$200,000 to \$125,000 per producer. Service fee of 1% established.

recourse and marketing loans, but not deficiency payments.

A variety of other, more commodity-specific changes are worth noting. First, deficiency payments for barley have changed. The market price to establish the deficiency payment rate was previously based on feed and malt barley. The 1990 bill requires the market price to be based on feed barley which will lead to higher barley deficiency payments. Producers of the higher valued malt barley, however, will be assessed a five per cent charge to offset the higher payments.

Other changes affect oilseeds. As noted, the marketing loan, previously authorised for only cotton and rice, has been extended to soybeans, sunflowers, flax, canola, and mustard seed. The primary effect of the triple-base program will be to allow production of these oilseeds to expand. In the past, farmers were reluctant to plant these crops in fear of losing their "historical" base acreage. The triple-base now allows farmers to expand production of these crops somewhat (e.g., by 15 per cent) without seriously jeopardising their future eligibility.

The highly protected sugar and dairy programs were not immune to the aforementioned forces, but largely escaped any substantial trade liberalization, suffering mainly at the hands of budget balancers. Sugar processors will be assessed a one per cent "market service payment" to offset the deficit and appease other commodity groups taking larger cuts. On balance, many sugar growers feel they are no worse off, and possibly even better off, under the 1990 bill. Minor changes were also made, as noted, in the dairy program.

Some technical changes were also made to the basic mechanisms of the farm program. First, the market price used to determine the deficiency payment rate was moved from a 5- to a 12-month average, likely resulting in lower payments. Second, the loan rate for the non-recourse loan program will be set differently. The loan rate could previously be set between 75 and 85 per cent of the 5 year moving average market price. Now the loan rate cannot fall below 85 per cent and cannot be set more than 5 per cent lower than the previous year's rate.

On the international trade front, the so-called "snapback" provisions are potentially the most injurious to other countries such as Australia. The 1990 bill included a provisional clause that if there is no agricultural agreement by June 30, 1992 among the GATT contracting parties, the Secretary of Agriculture is to spend an additional \$1 billion on export subsidies. The Secretary must also enact the marketing loan program on wheat and feed grains. In the case of a GATT agreement that is not enforced or not approved by Congress, the Secretary can waive all program cost reduction measures, raise export subsidies and enact the marketing loan for wheat and feed grains. However if an agreement is made, accepted and enforced before June 1992, Congress may have to rewrite the 1990 farm bill to incorporate the details of the agreement.

These "snapback" provisions of the bill thus allow for both more EEP spending and the extension of marketing loans to coarse grains and wheat if GATT "fails". These provisions contain the worst elements of both fantasy and reality. On the one hand, they are unlikely to be funded at levels which would realistically be required to truly punish the EC for its intransigence, unless the \$13.6 billion spending target is abandoned. On the other hand, they will surely provoke retaliation, in all likelihood leading to even lower prices, especially in the wheat market. It is the threat of such retaliation, due to failure in the Uruguay Round, that makes the breakdown of talks in Brussels of real concern.

As of this writing, the likelihood for a meaningful package of reforms in the areas of market access, internal supports, and export subsidies in GATT are slim. When the EC, together with Japan and South Korea, rejected the Hellstrom compromise proposal in Brussels on December 6 1990, they signalled that even if a final deal is achieved it will fall short of the proposed compromise. That compromise called for 30 per cent reductions in both export subsidies and internal supports on a base year of 1990 (as distinct from the EC's proposed base of 1986) and 30 per cent increases in market access over five years, with a minimum 5 per cent market access guarantee at the outset.

The prospects in GATT are either for something short of the Hellstrom compromise, or nothing at



all. In terms of immediate impact on the U.S. farm sector and its balance sheet, either outcome would take several years to show up, unless a trade war erupted quickly in the face of failure. Something close to the Hellstrom compromise would reinforce the logic of the "triple-base", by mandating further reductions in deficiency payments, and would create an excuse for ending the ill-advised EEP program. The market access provisions would also assist in lower import quotas in sugar, and to a lesser degree in peanuts, dairy and other border-protected commodities. These effects would occur over a relatively long time (five to ten years) giving the farm sector plenty of opportunity to adjust.

One of the ironies of the debate over the Uruguay Round in farm circles has been the paranoia GATT has produced, which has been fed by neopopulist opponents of liberalization. These opponents are usually admirers of supply control, and sometimes of the EC. If the GATT talks fail completely, the irony will be that the retaliation mandated by the "snapback" provisions of the 1990 bill will actually fan the flames of protectionism, leading to attacks on the EC, Japan and South Korea, which together constitute huge agricultural export customers. If farmers are looking for something to be paranoid about, it should be a trade war, rather than GATT. Such a trade war will have two primary effects. First, it will further depress world markets, leading to even lower commodities prices, especially in the wheat market. Second, it will cost money, which unless Congress is prepared to reverse its stand on agricultural spending, could mean even less for deficiency payments. If the trade war spreads beyond agriculture to include other sectors of the economy, it would deepen the current global recession, lowering profits and government revenues, putting even more downward pressure on both the demand for agricultural exports and the ability of government to subsidize them and the farm sector.

The environmental interest groups came out of the 1990 farm bill debate relatively satisfied. First, the CRP was extended and expanded. The deadline for the enrollment of 40 to 45 million acres (16 to 18 million hectares) was extended to 1995. More important, however, is the expansion of eligible land to include areas subject to water erosion and/or groundwater contamination. Now eligible for enrollment are shelterbelts, windbreaks and mar-

ginal pasture land planted to trees.

The CRP also served as the model for a new Wetlands Reserve Program (WRP). The program calls for the enrollment of up to one million acres (0.4 million hectares) to be paid for easements of 30 years or longer. Priority is put on wetlands that enhance bird and wildlife habitat. The WRP is also established to help fund the restoration of wetlands by farmers before the lands are enrolled in the program.

Arising from the neglect of water issues in farm policy, water quality was addressed with a new Water Quality Incentive Program (WQIP). The program helps producers develop and implement farm management plans that protect water quality and improve wildlife habitat. Producers can receive up to \$3,500 a year in incentive payments and \$1,500 in cost share assistance on approved plans; additional monies are available if the plan improves wildlife habitat. The enrollment goal set for this program is 10 million acres (4 million hectares) by 1995. A producer's base and payment yield are protected under this program even if acres or yields are reduced because of the implemented practices.

As mentioned above, the conservation compliance provisions and the sod- and swamp-buster programs have received much criticism for their inequitable penalties. This problem was partially addressed in the 1990 bill. Penalties are now smaller and more graduated for farmers who *accidentally* plow up highly erodible land or wetlands; between \$750 and \$10,000 on wetlands and \$500 and \$5,000 for drylands. However, a farmer whom *purposefully* violates the programs would be subject to stricter and quicker penalties. According to one Sierra Club official, the program as of 1985 was a "well-intentioned program" while "In 1990, it's a well-written program" (*Agweek* 1990).

A new environmental policy to supplement those existing is called the Integrated Farm Management (IFM) program. Farmers submit three- to five-year plans for their farms which combine overall productivity with profitability. The plans must prevent soil erosion, maintain or improve soil fertility, conserve and protect water and interrupt pest cycles. Through the life of the plan 20 per cent of base acreage, which is preserved, must be committed to

a resource-conserving crop. Producers enrolled in the program will continue to collect deficiency payments as if they were planting program crops. Three million acres (1.2 million hectares) is the enrollment goal for 1995.

The final environmental provisions to be achieved in the bill address pesticides and organic foods. Under the first provision, farmers are required to keep records on their use of restricted pesticides for two years. While the records are to be kept confidential by the government they can be made available to state and federal agencies and health care officials. In addition, national standards have been set for food that is labeled "organic".

### The Future of U.S. Farm Policy

The false promise of budget reductions under the Gramm-Rudman deficit reduction bill is now acknowledged, and the federal deficit is running higher in 1990 than ever. Thus, budgetary pressures will continue to be a force in future farm legislation. They are also likely to make certain of the political promises of the 1990 bill, notably the "snapback provisions", difficult to implement, since the Treasury is empty. The movement to continue introducing greater flexibility into farm programs is very strong, since budgets will keep pinching, and politicians will keep squirming, seeking compromises which save money while saving seats. These pressures to decrease program costs, environmental interventions and slow but inexorable movements toward more open trade, all support the move to greater flexibility in U.S. farm programs. While it is difficult to predict the outcome of the Uruguay Round, if some accommodation is found it will set the tone for future farm bills. If there is no agreement, then bilateral disputes and the possibility of a wider trade war is possible.

While the results of the Uruguay Round will affect farm policy, less-than-multilateral trade liberalization is also likely to have an impact, such as the Japanese liberalization of beef and citrus markets, the withdrawal of government intervention in New Zealand and similar steps by Australia, Canada and Sweden. These changes indicate that countries may have to change at their own pace and in their own ways regardless of GATT pressures.

### Summary

While the Food, Agriculture, Conservation and Trade Act of 1990 is a lineal descendent of the 1985 bill, the differences that do exist are important. The 1990 bill promises to be less costly than its 1985 counterpart, due to a mixture of decreased deficiency payments from the triple-base program, and origination fees and assessments for programs such as sugar, tobacco, wool, mohair, peanuts and dairy. An extended and expanded CRP; more equitable penalties for conservation compliance, swamp-buster and sod-buster programs; a new Wetlands Reserve Program; a water quality program and the Integrated Farm Management program all illustrate the growing concern for natural resources. While the GATT negotiations did not directly affect the farm bill, provisions added may result in increased trade tensions if an agreement is not reached.

The same forces which shaped the 1990 bill - - the budget crisis, farming flexibility, environmental concerns and multilateral trade negotiations - - promise to continue their influence on U.S. farm policy for the remainder of the 1990s.

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