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ACREAGE REDUCTION OPTIONS IN THE
1985 FARM BILL PROPOSALS

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ACREAGE REDUCTION ALTERNATIVES IN THE 1985
FARM BILL PROPOSALS

The 1985 farm bill legislative process offered opportunities for innovation, particularly for the acreage reduction provisions we are discussing today. In fact, the new provisions for idling land and conserving soil proved the more consistent and detailed among the new farm bill proposals, even though lagging exports and other issues clearly constituted farmers' more immediate economic concerns. This conservation emphasis likely reflects a greater understanding on the part of legislators about the economic effects of the conservation reserve provisions, stemming from analysts' greater knowledge and agreement as to the economic impact of acreage reduction alternatives.

Studies going back twenty years as well as more recent studies by the Economic Research Service considered the cost and erosion impacts of conservation reserve options similar to those being proposed. The objective in these studies was to analyze underlying economic relationships, rather than the many options actually proposed. Nevertheless, the broad options (targeting erodible land, etc.) were identified as were tools (such as bid systems) for carrying out each option.

The acreage reduction options and tools used in implementing them have strengths and weaknesses in meeting current farm policy objectives. The major objectives include: reducing the costliness of price supports, distributing idled acres evenly among regions, transferring income to farmers, competing more efficiently with other trading nations, and

reducing soil erosion. Drawing on studies conducted over the past 20 years, this paper identifies complementarities in meeting these acreage reduction and soil conservation goals. Where competition exists, such as between soil conservation versus supply control objectives, the trade-offs are quantified.

Acreage Reduction Proposals and Tools for Implementing Them

Acreage reduction proposals of the past few months ranged from quotas and mandatory acreage controls for just about everything produced on U.S. farms, as proposed by the American Agricultural Movement, to the Agricultural Adjustment Act of 1985 phase-out of all acreage reductions within three years. Between these proposals fall all of the other farm bill proposals, most of which contain conservation provisions idling land for several years under a conservation reserve. The conservation reserve proposals usually prioritize erosion prone or highly erodible land for the reserve (USDA, 1985).

With the exception of a bill by Senators Boschwitz and Boren (S.104)), the long-term acreage reductions would not completely replace the annual acreage reduction tools used currently. Acreage reduction options which remove land from farmers' base acreages, using target price, deficiency payments and paid diversions as incentives to participate, generally continue to some degree to be used for supply control.

New acreage reduction tools include bid systems, similar to that used in the 1983 PIK program, and sodbuster provisions which are contained in all the farm bills except Senator Cochran's (S.843). Sodbuster provisions do not take acres out

of production, but instead, deny virtually all farm program benefits to farmers who bring new highly erodible land into production. Thus, they would help limit production, particularly for bills whose "highly erodible" land definitions include most new cropland that will erode excessively (Heimlich, USDA, 1985) and if the sodbuster penalty is fairly strong.

There are then several acreage reduction and conservation options, and alternate tools for implementing each option. Studies have found that each combination has certain strengths and certain limitations depending on which program objectives are considered most important.

Reducing Budget Exposure

Some primary acreage reduction concerns were identified in studies of budget impact of the Soil Bank programs over 20 years ago. The Soil Bank, which was established by the Agricultural Adjustment Act of 1956, had two parts: an acreage reserve and a conservation reserve. The acreage reserve operated like current acreage reduction programs in its focus on program crops, its use of base acreages, its two price system involving payments for participation, and its operation on an annual basis. It ended in 1958 amidst criticism that costs were excessive (USDA, AIB 485, 1984).

The conservation reserve, instead, idled larger portions of participating farms, or entire farms, usually for ten years. Payments were on a per acre basis and were low to attract marginal land. The conservation reserve idled 28.6 million acres at its peak in 1960, gradually declining after that until

the last acreage left in 1972. Grazing was not allowed except in emergencies. The major criticism was its lack of any limit on land idled in some communities that were surrounded by unprofitable farmland, and a smaller windfall for program participants (USDA, AIB 485, 1984).

Economists viewed the conservation reserve as a way to achieve price support objectives at less cost. Christiansen and Aines compared the two Soil Bank programs' actual performance; J. Carrol Bottum and others used farmer surveys and budgeting techniques to determine how to obtain production adjustments more efficiently; and Kenneth Robinson looked at the fixed capital idled under each approach per unit of production adjustment. In reviewing these studies in the early sixties, Brandow found some agreement on a 40 to 50 percent federal cost savings under the conservation reserve compared to the annual approaches that idled much smaller portions of farms.

Robinson estimated that the annual programs cost about as much to prevent production as it would have cost to buy the grain. Focusing, instead, on less profitable land would cost half as much, just from savings due to idling more variable inputs and less fixed capital in the form of land. This could be accomplished only under the conservation reserve, because it rented larger portions of land on less profitable farms. An effective conservation reserve program would thus idle larger acreages in the less productive plains states and in the southern U.S., while annual programs (conducted on either a voluntary or mandatory basis) idled more land in the Midwest.

Robinson's findings were supported by Christiansen and Aines, Bottum et.al., and Brandow.

Robinson and Brandow also suggested additional savings from the conservation reserve because it freed machinery and labor to move off the whole farms idled under the reserve. Annual programs idled land only on small portions of each farm, making it difficult to find productive uses for the resulting excess in labor and machine capacity.

The study headed by Bottum suggested additional savings from the conservation reserve, again due to its acceptance of a larger acreage from each farm. From farmer surveys and from an analysis of a pilot "bid" program, the authors discovered that farmers varied widely as to the payment required to enlist their participation in an acreage reduction program. This again emphasized the advantages of the conservation reserve which accepts a larger acreage of the land that would rent for less.

Advantages of the bid system were evident from these results, as well. Annual programs were paying every farmer what it cost to attract the most reluctant participants. The conservation reserve, on the other hand, could easily operate under a bid system because it would not entail the administrative cost and delays from bidding every year.

Recent USDA studies suggest that differences between land rental costs in the market and program costs for idling land are half again as large as 20 years ago when Brandow and others looked at acreage reduction costs (USDA, AER 534, 1985). Farmers have perhaps gained more experience and certainly more

opportunity to manipulate their base acreages to exaggerate the base's size; for example, many farmers now own two farms (Jagger; Office of Inspector General) and can legally shift summer fallow wheat acres between farms, while claiming the fallow land as idled acres.

Cost comparisons today also appear more authoritative as we have better tools for measuring yields and costs on the marginal acres as well as highly erodible acres, that might be attracted into a conservation reserve. Recent research by ERS economists using the CARD system at Iowa State University suggests that Brandow somewhat underestimated the production adjustment attainable today from the conservation reserve for the most marginal cropland in the review cited above. Brandow estimated that these conservation reserve acres were only half as productive as the acres idled by the annual program, which according to ERS, would mean that yields on annual program acres equal the national average; this is not likely, given the availability of less productive land in areas of heavy participation. (For the recent cost estimates see Ogg, Webb, and Huang and the USDA's AER 534. The studies cited by Brandow include Bottum, et al; Christiansen and Aines; and Brandow's own 1962 article. Cost comparisons with the new reserve options targeting highly erodible land are presented later in this report).

In addition to the savings from accepting up to the entire farm in an acreage reduction, today's conservation reserve proposals, in most cases, favor a bid system. A recent study

finds that under certain, restrictive assumptions, the bid system reduces budget exposure today by an additional 25 percent compared to a fixed payment (Ogg, Webb, Huang). However, savings of this magnitude from bidding would occur only if bids were perfectly competitive and all farmers with marginal land offered bids--not likely assumptions. Actual savings from the bid system itself would probably be small compared to the above savings estimates for options including more efficient size units or whole farms.

By discouraging new plowing by program participants, the new sodbuster provisions also increase the price support attainable from any level of budget outlays. Sodbuster provisions are contained in all of the farm bills that favor a conservation reserve (USDA, 1985). Sodbuster sanctions in House Bills (HR. 1656, 2100, 2108, 2318, and 1777) and the Zorinski Bill (S.1021) encompass essentially all of the land covered by any recent definition of "highly erodible" cropland (USDA, 1985).^{2/} Their sanctions would affect, to some degree, up to a third of the new cropland being plowed up in recent years, and obviously, would especially discourage new plowing on farms entering a conservation reserve for highly erodible land (Ogg). Reduced or eliminated price support in these bills would also discourage breaking out of new land in hopes of later establishing it for inclusion as program acres.

As noted above, conservation reserve participants cannot alternate summer fallow acres between farms and thus include them as their idled acres as they do in annual programs (USDA,

1983). The stronger sodbuster provisions, when combined with substantial conservation reserves, can thus reduce the potential for program abuses and slippage that has weakened annual acreage reduction efforts. However, price support benefits from sodbuster legislation are a major supply control consideration only in bills that rely on long-term acreage reduction and also define their highly erodible land in their sodbuster provisions in ways that match, to some degree, the definition in their conservation reserve provisions.

Attaining Broad Participation Geographically

Concentrating the idled acres on unproductive land was identified as a way to reduce costs per bushel of production prevented. The past conservation reserve thus reduced costs by not placing an effective limit on marginal acres entering the reserve in local communities. However, local business interests in areas where large portions of the land was marginal and easily attracted into the reserve were adversely affected (USDA, AIB 485, 1985; Brandow).

Current, annual acreage reduction programs avoid this problem and achieve broad participation geographically by limiting the acreage idled on any one farm to a small percentage of its cropland. But this means that many farms must be drawn into the program to get the desired production reduction, which is especially costly, for the several reasons cited above. In addition, Brandow and Bottum et al note that farms differ greatly as to an acceptable payment for idling land, suggesting major savings simply from taking more land from those willing to

rent for less.

The bid system can play a role in attaining a broad geographic distribution for the acreage idled. It does so by allocating just enough money to each local district or county to enlist the appropriate acreage. The result is broad geographic participation with a more modest increase in the number of farmers and the amount of costly land entering the conservation reserve. (In other words (Ogg, Webb, and Huang) found that low rent land is widely distributed even if available mainly in larger units.) Under bid programs, the counties could even be divided to further assure that too many bids are not accepted from any one community.

The Income Transfer Objective

In past years, acreage reduction costs were not always a major consideration. When we did not have massive surpluses of grain in federal storage programs, target prices served as an income transfer mechanism, as well as an incentive for idling land. In such years, broad participation among farmers became desirable, as well as broad participation among regions. Annual programs are the most versatile in this respect (Brandow).

All of the measures mentioned above to meet price support objectives at lower cost are obviously the least inclined to transfer income to farmers or result in windfalls to participants. However, cost savings receive consideration rather than income transfer in situations where surpluses are large or there are serious budget constraints, such as those in existence today.

Promoting Trade Versus Acreage Reduction

Some supply control measures also conflict with keeping U.S. farm products competitive on world markets. The United States has recently invested billions of dollars in acreage reduction to exercise its market power, while our competitors generally subsidized exports. This situation, combined with expanded U.S. dependence on highly competitive export markets, suggests U.S. programs' ability to influence prices may have diminished in recent years (Schuh) even if we could effectively reduce production. Many farm bills would thus have the Secretary of Agriculture provide a bonus of federal grain to foreign buyers of grain (USDA, 1985).

The Boschwitz-Boren bill combines one of the strongest of these export promotion proposals with some of the strongest conservation provisions. Since about a fourth of the land currently being plowed up to meet export demands is highly erodible (Ogg), conservation was recognized as a relevant issue regarding bills that promote exports.

Acreage reduction options in the conservation oriented bills also damage the competitiveness of U.S. goods far less than past acreage reduction approaches. A conservation reserve for either erodible land or marginal land tends to idle land that would gradually go out of production, anyway, as these bills all lower loan rates and target prices. Past arguments that the conservation reserve for marginal land served to speed an adjustment process (Brandow; Bottum et al) are thus quite relevant to recent trade initiatives. Current annual programs,

as well as recent quota and mandatory acreage reduction proposals, idle, instead, a cross-section of our cropland; they likely encourage the shift toward much less profitable or more erodible acres that have been coming into production (Ogg).

Soil Conservation and Water Quality Concerns

Recent legislative initiatives for long-term acreage reductions clearly center on soil conservation impacts far more than the more immediate efficiency considerations analyzed above and in the past studies. Erosion and related water quality consequences of policy choices are significant. A 1984 USDA study found that current approaches (and presumably the mandatory acreage reduction proposals) would reduce soil erosion per acre in the U.S. very little because they spread the idled acres across all farms rather than focusing on erodible or unprofitable soils. Also, all the supply control approaches conducted on an annual basis could not offer much protection for the idled acres. At the other extreme, the ERS study in 1985 found we could eliminate about half or two-thirds of the damaging erosion under long-term acreage reduction proposals that attempt to maximize erosion reductions per dollar spent.

Economic Research Service (ERS) economists in 1984 addressed these trade-offs between idling the least profitable land and the more erodible land. They considered the option of eliminating the most erodible land, a conservation reserve option that ignored erosion to idle the least profitable land, and options that combined the two objectives (USDA, AER 534, 1985; Ogg, Webb, and Huang). The farm bill conservation reserve

proposals fall somewhere among the options considered in the ERS analyses (USDA, 1985).

The ERS studies found that focusing on the most erodible land doubled the per acre costs of the reserve without attaining much more production adjustment per acre idled than the least costly option. On the other hand, the conservation reserve option for the least profitable land did modestly well from an erosion standpoint, achieving about a third the erosion reduction of the option taking out the most erodible land while attaining the same production adjustment. Midway between these options was one that doubled the erosion reduction over the least cost option; it cost about 20 percent more per unit of production reduction than the least costly option. This middle option broadly aimed for the compromise between the erosion control and price support objectives that appears in several farm bill proposals (USDA, 1985).

Assumptions employed in making these cost comparisons did not consider the added cost associated with idling land in inefficient units which would likely occur under the option accepting only the highly erodible acres. Conceivably, an actual program that does not accept the less erodible portions of a farmer's field might experience some of the higher costs per acre described by Brandow's review of studies of annual programs in the early sixties.

However, virtually all of the conservation reserve legislation would have the Secretary of Agriculture pursue a balance between erosion control and price support. Several