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Alternative Policy Options to Address Agricultural Instability

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ALTERNATIVE POLICY OPTIONS TO ADDRESS AGRICULTURAL INSTABILITY

The strongest justification for government involvement in agricultural commodity markets is the instability in U.S. food and agricultural markets that affects both consumers and producers through food supply and price volatility (Tweeten 1993). This instability comes from many sources, including weather conditions, domestic and foreign agricultural programs and policies, and other causes of price variability. All of these factors work to increase volatility in producer revenues and consumer food expenditures. Federal programs oriented towards reducing farm-level revenue instability—such as commodity programs, crop insurance, and disaster assistance—continue to be criticized, implying that these programs have not succeeded in achieving stated goals. In “Agricultural Policy Reform: A Proposal,” Harrington and Doering (1993a) suggest an alternative to the current federal commodity program system. In a follow-up defense of the article, they exclaimed, “Let’s get some more new ideas on the table!” It is evident that this challenge was answered before it was received.

The federal government’s current agricultural policy began in earnest in the 1920s and 1930s. As Doering (1991) points out, agricultural policy formulation and implementation was driven by “the cataclysmic events of the Depression.” The harsh economic conditions of that era created the impetus for many agricultural programs. Most of these programs remain in use today. In 1940, Howard Tolley wrote “Some Essentials of a Good Agricultural Policy,” an essay on the goals and directions of agricultural policy that is still pertinent in 1994. The framework of current agricultural policy originated at a

time when agricultural and rural interests were considered a single entity; both faced severe economic hardships and agricultural stabilization became synonymous with rural stabilization. Bold policies were enacted in that crisis to stabilize rural communities and economic activity. Since then, the policies have only been changed marginally, even though rural and agricultural communities have evolved and differentiated themselves from each other. Thus, critics argue that agricultural programs have fallen behind the times and the time for a major overhaul of agricultural policy has arrived. As Doering noted:

Fresh and innovative thinking about where we go from here will have to go beyond current policies and their mechanisms and beyond marginal analysis. Marginalists survive well during stability. We are beyond stability, and instability demands something else (1991, p.5).

Various studies addressing instability in U.S. production agriculture have proposed policy alternatives to modify existing federal government programs. With Congress preparing for the 1995 Farm Bill, policy debate concerning instability is beginning to focus on agricultural insurance, farm revenue stabilization, and disaster assistance. The current web of ad hoc and supplemental programs and policies has been disappointing because they have not led to agricultural stability. The crop insurance—disaster relief cycle exemplifies the contradictory programs and confusing policies that abound. When the Federal Crop Insurance Act of 1980 was

passed, multiple peril crop insurance (MPCI) was to be the federal government's farm disaster assistance program, replacing the disaster relief efforts of the 1970s. MPCI was intended to eliminate all other forms of disaster assistance. But it failed to prevent the ad hoc disaster relief efforts of 1983, 1986, 1988, 1989, and 1993. The availability of such disaster programs has diminished the attractiveness of MPCI and reduced the participation rate in the program. Overall, the government's attempt to replace disaster assistance with MPCI was counteracted by its use of ad hoc relief programs over recent years.

Academics, politicians, and producers have all called for reform of federal agricultural programs. Reform, the "catch-word" of the 1990s, has been or is being addressed in welfare, health care, and government bureaucracy. Now could well be the time for agricultural policy, especially policy dealing with agricultural instability, to join in the movement toward reform. Arguably, U.S. agricultural policy reform should unify across policy objectives in conjunction with a streamlining of agricultural programs. This would benefit both producers and consumers. Additionally, concerns about the federal budget deficit are forcing an examination of the efficiency of program delivery and the cost effectiveness of each program. Agricultural programs will need to "get the most bang for the buck" to meet everyone's needs. Having programs that counteract one another reduces the effectiveness of the overall system, increases cost, and diminishes program delivery.

Several researchers have presented alternatives to current agricultural policies, especially MPCI, and have compared their proposals with current programs. Many of these alternatives attempt to unify agricultural policy goals. These alternative programs seek to

diminish agricultural instability by reducing yield, price, and/or revenue instability. A program's success or failure at achieving agricultural stability depends specifically on the immediate source of the problem. For example, if yield variability (from weather conditions) is the major source of agricultural instability, then price stabilization schemes alone would increase variability in revenues and destabilize producer cash flow (Helmberger 1989). Thus, price and yield interactions complicate any evaluation of alternative programs.

Modifications to Current Programs

Mayer (1991) and Miranda and Glauber (1991) both devised modifications to extend the deficiency payments program to cover low yield years. Mayer's plan adjusts target prices to respond to the difference between actual and target yields. The target price rises as the target yield exceeds the actual yield or falls when the target yield is below actual yields. Hence, low yield years are covered by higher target prices. He illustrates this concept by basing it on a given price adjustment pattern for wheat and corn. The payouts are compared with current deficiency payments. The target price adjustments may be derived from farm, county, state, or national yield data. Unfortunately, producers not affected by a disaster could receive payments. This problem is reduced by using more desegregated data.

Miranda and Glauber's modified deficiency payments program establishes a target revenue for farms. Payments are hinged on the difference between target revenues and the area's average revenue. Target revenues can be based on national, state, or county data. A farm-level program was not considered because of speculated moral hazard problems. Employing a regional corn model, the authors

found the target revenue program reduced revenue variability, provided better income protection, and stabilized program outlays for the same cost as the less efficient crop insurance—deficiency payments program.

Complete Restructuring of Programs

Cochrane and Runge (1992) and Harrington and Doering (1993a) both propose a major reshaping of agricultural programs. Cochrane and Runge suggest scaling back most major field crop agricultural programs and replacing them with an income stabilization plan based on individual “farm bases” that combine all farming and most conservation acreage. The base can be maintained by planting a variety of crops instead of a specified crop. To avoid sudden production shifts, the switching of crops would be regulated and gradually allowed. Three-year moving averages of indexes for prices received and paid for a “regional ‘basket’ of commodities” determine the payment schedule. The United States is divided into six regions. In each region, payments are triggered when the percentage change in the prices received index is exceeded by the percentage change in the prices paid index. These payments can differ across regions and are on a per acre basis. Total government outlays and total farm program receipts would be bounded. Harrington and Doering eliminate practically all federal commodity programs except crop insurance and deficiency payments. Their program stabilizes prices through deficiency payments, while covering yield uncertainty with actuarially sound crop insurance. Ten- to 15-year moving averages of yields and market prices are used to set target yields and prices.

Two other proposals that have been debated are normal crop acreage (NCA) and production entitlement guarantees (PEGs). The Bush administration’s proposal for the 1990 Farm Bill was stated to give farmers

more flexibility in planting decisions under an NCA program. Normal crop acreage is the sum of individual program crop acreage bases and historical oilseed plantings for each farm. The NCA can be maintained by planting any combination of program crops, oilseeds, and unharvested conservation crops. All acreage reduction programs are kept and payments are quasi-decoupled by being based on historical cropping patterns. Farmers are allowed to plant on acreage conservation reserve land in exchange for a reduction in the amount of eligible payment acreage on an acre-for-acre basis (Westhoff and Stephens 1990; Young and Painter 1990).

Production entitlement guarantees (PEGs) provide limits on the quantity of production that would receive support. First proposed by Blandford et al. (1989), PEGs attempt to decouple farm payments at the margin, assuming the PEG is below actual production. PEG payments could be based on producer subsidy equivalents (PSEs) or historical price support levels. All border policies and internal supports except PEGs would be eliminated and the PEG levels would be determined through levels established by the General Agreement on Tariffs and Trade (GATT). Countries would develop their own payment plans, including any caps on individual and/or total payments. The PEG concept is comparable to the maximum guaranteed quantities (MGQs) of the European Union. The PEGs could be tradable or attached to the land or the producer, depending on the country’s preference. To implement a PEG program in the United States, traditional commodity programs such as acreage reduction programs, nonrecourse loans, export subsidies, other surplus management programs, and import quotas would be eliminated. Government stock holding would be conducted at world prices. Base acreage and program yields are reduced, then held constant. These changes would mold the

target price and deficiency payment program into a conceptually workable PEG program.

Area Insurance

Another option, area-based crop insurance, has been examined by several authors. Miranda (1991) looked at both full coverage and optimal coverage area crop insurance. Optimal coverage allows producers to choose the level of coverage, including levels above 100 percent, that they deem optimal. This area-based insurance differs from the type used between 1981 and 1985 by having indemnities based on area yields, not farm yields. Area-based crop insurance theoretically avoids much of the moral hazard problems that afflict the current MPCCI.

The Group Risk Plan (GRP) is a pilot area crop insurance program outlined by Skees (1993). Having been first tested in 1993 for soybeans, this plan will be expanded to eight major crops in 1994. The GRP gives the producer several options on expected revenue protection levels and trigger yield levels. These yield levels represent percentages of expected county yield. High-yield producers would be attracted to the program by allowing expected revenue protection levels of up to 150 percent. Indemnities are equal to the product of the protection level and the percentage shortfall of yields from the trigger level. However, if the county yield is maintained above the trigger level, as would frequently be the case, there could be farms suffering losses that would receive no benefits. For this very serious shortcoming in GRP, Skees suggests three options or additions to the program: a low-level MPCCI could be used in combination with GRP; better homogeneous zones than counties can be developed; and/or private insurers could be encouraged to offer supplemental insurance (such as hail insurance).

It is interesting to note that all three suggestions involve significant farm-level data requirements, which begs the questions, "If one must ultimately compile farm-level proven yield data to make area-based insurance work in practice, why bother with area bases at all? Why not instead embark immediately on an individual, farm-level proven yield approach and have only one program rather than two or three and also have a program that addresses both moral hazard and adverse selection instead of only one of these at a time?" Additionally, it could be asked, "Why must we approach price and quantity variability separately if producer revenue instability (cash flow risk) is the primary problem in the first place?" This leads directly to the idea of revenue stabilization insurance as a program to manage producer cash flow risk.

Revenue Stabilization Plans

Turvey has been a leading proponent of revenue insurance. In a 1992 paper, he compared various forms of revenue, price, and crop insurance. Good-specific revenue insurance establishes target revenues for the various crops on the farm. If actual revenue from a crop falls below the target, an indemnity is paid on that commodity. Portfolio or general revenue insurance considers the entire crop mix to determine an expected return coverage level. Premiums are set ex post and indemnities are paid if gross revenue falls below the coverage level. In his study, Turvey found portfolio insurance promoted self-insurance through diversification. Also, risk-neutral behavior flourished under agricultural insurance and premium subsidies reinforced this behavior.

Akin to revenue insurance, the *Iowa Plan* is an optional risk management program that was proposed in 1993 by the 1995 Farm Bill Study Team. Under the Iowa Plan, MPCCI and other

programs would be modified and extended to provide a unified federal approach to producer risk. This proposal aims to simplify federal agricultural policy by creating a one-package program that would represent all major crop and livestock needs. Farmers would be supported at a set percentage of their gross revenue. Set-aside requirements are eliminated, while the conservation reserve program, commodity credit corporation, and farmer-owned reserve are kept in place. One goal of the plan is to reduce government-induced distortions and bring farming decisions back under market influences. The implication is that government commodity programs now dictate production decisions.

To rigorously compare these and other alternative programs to the current system, more studies like Glauber, Harwood, and Miranda (1989) need to be conducted. They study the effects of MPCl, a disaster relief program, free or compulsory crop insurance for commodity program participants, and a target revenue program on market prices, budget expenditures, producer revenues, and federal program participation. Thus, they cover the various concerns of producers, consumers, and policymakers.

Summary and Recommendations

The general objective of each of these proposed programs is to reduce agricultural instability. Yield, price, and/or revenue variability are examined. Whether the proposed programs would fulfill expectations depends on the sources of agricultural instability and their magnitudes. Many of the alternatives rely on some sort of agricultural insurance and, thus, would face some of the same problems MPCl does. The ability of these plans to diminish the effects of moral hazard and adverse selection will be another key factor to their performance. Program sensitivity will also be a point of some

contention. Some of the programs are based on area, county, state, or national data, trading program responsiveness for administrative and statistical costs. Several of the programs attempt to bring a unified approach to agricultural policies and programs. However, whether these programs will be sensitive enough to meet the needs of producers, while preventing the call for ad hoc disaster assistance and being funded at an affordable cost, is open to debate.

Over the next two years, the debate over the 1995 Farm Bill will force policymakers to consider even more alternatives. Most of these programs will have a chance to become the federal agricultural program of the future; however, each program's effects on both the farming community and the federal budget should be thoroughly examined and be tempered with skepticism.

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