# Supply Management

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### Introduction

The federal government has been involved in managing the supplies of agricultural commodities since the 1920s. Over time, there have been several different types of instruments (voluntary, ARP, setasides, land retirement) and justifications (surplus control, price enhancement, and government budget exposure) for managing supply. When the Congress passed the FAIR Act of 1996, short-term supply management programs for the major program commodities were ended. Currently, the only remaining policy instruments that have a supply management leaning (among other objectives) are the conservation and wetlands reserve programs and marketing quotas in peanuts and tobacco.

For most of the 25 years prior to the 1996 Farm Bill, supply management tools have been used in conjunction with price and/or income (target prices and loan rates) support mechanisms in an effort to hold supplies in check at prices above market clearing. Compliance with supply management programs was often achieved by making it a requirement for participation in price/income supports. This paper provides a brief history of supply management programs and discusses contemporary policy alternatives and their consequences.

### Background

The farm policy goal of supply management programs is to adjust agricultural production to perceived market needs. More specifically, supply management programs have been used to address over supply of agricultural commodities and its resulting negative effect on market prices and farm incomes. By indirectly supporting prices, supply controls also attempt to manage the government's budget exposure associated with concurrent price/ income supports. Attempts to more closely coordinate supply with demand have covered a myriad of programs ranging from voluntary acreage reduction programs to mandatory production controls.

To understand where supply management programs may be headed, it is instructive to consider the path that these programs have taken over the last 70 years. The following is a brief summary of the major agricultural legislation containing supply management tools.

The first instance of the federal government using a supply management tool in the United States was the Federal Farm Board in 1929. The board used a fund of \$500 million to control surpluses by acquiring excess supplies. By 1932, the board stated that its efforts to control supplies had failed and recommended that legislation was needed to control agricultural production (Tweeten).

The Agricultural Adjustment Act of 1933 was the first major price support and acreage reduction program. Producers entered into voluntary agreements and were paid to reduce their acreage of "basic" commodities<sup>1</sup>. The Soil Conservation and Domestic Allotment Act of 1936 was the first agricultural legislation to combine conservation with production controls. Producers were paid to voluntarily shift acreage from soil-depleting crops to soil-conserving legumes and grasses.

Marketing quotas and acreage allotments were two of the major provisions of the Agricultural Adjustment Act of 1938 that have been carried forward in the 1949 permanent legislation. Acreage allotments restrict farmers to planting only a certain number of acres of the allotted crop, depending on their share of the national acreage allotment. Farmers responded to being restricted to planting on fewer allotted acres by farming the allotment acres more intensely, by applying more fertilizer, and, perhaps, by closer management (Knutson, et al.). This reaction reduced the effectiveness, which required a further reduction in the national acreage allotment.

The Agricultural Act of 1956 established the Soil Bank program, which was established to address the excess capacity issue. This act had two major provisions: 1) acreage reserve, which on an annual basis, paid farmers to reduce plantings of allotment crops (wheat, cotton, corn, tobacco, peanuts, and rice) below allotment levels; and 2) conservation reserve, which paid farmers to divert all or part of their cropland to soil-conserving uses under long-term contracts. The acreage reserve was discontinued after two years because of high costs. The long-term conservation reserve provisions, however, were more attractive as 30 million acres were in the soil bank by 1960. Rural communities located in high participation areas objected to the whole-farm retirement provisions of the program. Communities felt the strain as input purchases and product marketings were reduced.

The Emergency Feed Grain Program of 1961 included a voluntary acreage reduction program (ARP) for corn and sorghum that was later extended to wheat and cotton in 1965. The Agricultural Act of 1970 substituted a short-term partial land retirement program referred to as "set-aside" for allotments, marketing quotas, and acreage restrictions on wheat, upland cotton, and feed grains. The set-aside program required farmers to set aside a specific percentage of their cropland in order to qualify for farm program benefits. As with other supply management/production control programs there was significant slippage with the set-aside program. Slippage occurs when there is a difference in the percentage of land removed from production and the percentage reduction in supply. It occurs because producers typically set-aside their poorest land while farming the remaining acres more intensely.

The Food and Agriculture Act of 1977 continued set-asides and established a national peanut allotment and quota program, as well as, established Farmer Owned Reserve (FOR) for grains. The FOR was established to stabilize prices through managing stocks as opposed to acreage. It functioned as an extended loan program (with a higher loan rate) covering a period of up to three years. Producers could not sell their commodities until the market price reached the "release price" and had to sell when the market price reached the "call price." The effect of the FOR was to reduce producer marketings, which increased the size of stocks hanging over the market.

The next major supply management efforts were the Payment-in-Kind (PIK) Program of 1983, and the Dairy and Tobacco Adjustment Act of 1983. The PIK program provided for voluntary acreage reduction by adding payments in kind (commodity) to regular acreage reduction payments for grain, upland cotton, and rice (Tweeten). A record 82 million acres (more than one-third of all cropland) were removed from production. The reduction in supply would prove to be short lived. The Dairy and Tobacco Adjustment Act initiated a voluntary dairy diversion program similar to that for crops. Farmers could receive payments of \$10 per hundredweight of milk in return for cutting production 5 to 30 percent. The program did not succeed at reducing milk production.

<sup>&</sup>lt;sup>1</sup> Basic commodities were cotton, wheat, corn, rye, tobacco, hogs, and milk.

The Food Security Act of 1985 attempted to reduce incentives provided by previous legislation to produce for the farm programs. The 50/92 rule provided deficiency payments on 92 percent of permitted acreage if at least 50 percent of the program crop was planted, with the remaining acreage in soil conserving use. This provision was changed to a 0/92 rule for 1988. In addition, the Conservation Reserve Program — as we know it today — was initiated to take up to 45 million acres of highly erodible land out of production. The Act also authorized a dairy herd buyout program aimed at reducing milk surpluses by removing cows from production. Again, there was significant slippage and dairy surpluses returned.

The Food, Agriculture, Conservation, and Trade Act (FACTA) of 1990 continued the acreage reduction program (ARP) and authorized paid land diversion programs (PLD) in the framework of new triple base provisions. Instead of receiving deficiency payments based on 100 percent of the crop acreage base (CAB) less any ARP or PLD, payments were based on 85 percent of the CAB less any reduced acreage (Pollack). The 15 percent difference is referred to as normal flex acreage (NFA). Producers also had the option of flexing an additional 10 percent of the farm's base.

The Federal Agriculture Improvement and Reform (FAIR) Act of 1996 eliminated ARPs, suspended authority for the FOR through 2002, eliminated 0/85/92 and 50/85/92 programs, authorized new enrollments in the conservation reserve program to maintain total acreage at up to 36.4 million acres, and maintained peanut and tobacco quota programs.

# Summary of Previous Supply Management Efforts

Over the past 70 years, several supply management tools have been utilized with varying degrees of success. Clearly, the voluntary short-term supply management efforts have been ineffective at substantially reducing supplies. Examples of these types of programs would include voluntary ARPs, dairy diversion and buyout programs, and farmerowned reserves. Mandatory programs such as setaside and ARPs were also ineffective due to significant slippage. Longer-term programs such as the soil bank and conservation reserve programs were more effective at reducing supplies (along with environmental benefits). It is generally accepted that marketing quotas are the most effective at achieving the desired policy objective of controlling supplies.

### Policy Alternatives and Consequences

A number of policy options are possible with respect to supply management. In general, the options can be categorized as: 1) voluntary programs; 2) mandatory programs; and 3) no supply management programs. The potential impacts of the different categories of supply management vary across the various stakeholders.

#### Farmers

The impact of voluntary programs on farmers could safely be assumed to be positive --- otherwise farmers would not volunteer to participate in them. The impact of mandatory programs is not as clear. The ineffectiveness of non-paid set-asides and ARPs at reducing supplies would indicate a negative impact to the farmer. The farmer is generally forced to reduce acreage with little price compensation on his remaining productive capacity. Quota programs that effectively restrict supply would increase commodity prices and could increase total revenues. The extent of the revenue change would depend upon the response of price to the reduction in supply. A significant issue that will determine who benefits will be the method used to assign quota. In addition to the revenue effects, the benefits of the program get capitalized into the value of the asset (in this case, the quota), thereby increasing the wealth of the quota holder.

The impact of no supply management programs compared to the provisions of the FAIR Act are minimal. It would eliminate the tobacco and peanut quota programs. Depending upon whether they would be compensated for the loss in the value suffered from eliminating the quota, they may be better off in the short-term with significantly lower price expectations in the longer term. It is assumed that the conservation reserve program would not be eliminated due to its significant and positive environmental benefits, and the potential supply and price impact of bringing this acreage back into production.

#### Agribusiness

To the extent that any supply management program is effective, then the agribusiness sector would be adversely affected from reduced input sales and reduced handling of output. However, the impact of farming the remaining acreage more intensely may offset some of the adverse affects. In addition, there would likely be substantial regional disparities.

#### Consumers

Supply management programs, when effective, adversely impact consumers by raising food prices. The farm value of most foods is relatively small compared to the retail value so there would be some question as to the magnitude of the impact on retail food prices. However, it could be assumed that any farm price increases would be passed along to consumers. To the extent that long-term conservation programs create a reserve of production capacity, consumers are provided an additional assurance of an ample food supply.

#### **Taxpayers**

The impact of supply management on taxpayers is uncertain. Long-term acreage reduction is generally expensive, while short-term mandatory programs can be implemented at little or no cost. As a qualification for participation in concurrent price/ income supports, supply management (ARPs) may reduce participation and the cost of price supports. To the extent that short-term programs like ARPs are effective, these programs may reduce government budget exposure associated with price support programs. The no supply management alternative, compared to the provisions of the FAIR Act, would have little impact on taxpayers as the tobacco and peanut programs are generally no net cost programs.

#### Environment

Voluntary and mandatory supply management programs tend to have two effects. First, generally the poorest land (often environmentally fragile) is taken out of production. This would be a positive outcome. Second, the remaining acres are farmed more intensely — which can have serious environmental consequences. It is unclear whether eliminating supply management programs would be positive or negative.

#### **Rural Communities**

To the extent that any supply management program is effective, then the rural communities would be adversely affected from reduced input sales and reduced handling of output.

### Summary and Conclusions

Over the past 70 years, short-term supply management programs have met with little success at managing supplies. That lack of success, coupled with the popularity of the flexibility provisions provided for in the FAIR Act, suggest that short term supply management is not likely to be a significant part of the 2002 Farm Bill debate. Long term acreage reduction programs such as the CRP, however, are almost certainly to be a part of the next farm legislation. While these programs are expensive, they are perceived as having been very successful at achieving multiple objectives.

# References and Suggested Readings

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