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ABSTRACT

Mandatory restrictions on agricultural production continue to be suggested as an alternative policy for reducing price-depressing surplus production, increasing farm income, and cutting farm program costs. A mandatory production control program (MPCP) can be implemented through two methods: (1) acreage allotments, which restrict individual farmers as to the number of acres that they could plant for a particular crop, and (2) marketing quotas, by which individual farmers would be restricted as to the amount of the product that they could sell to others. Both types of production controls would depend on an estimated, government-specified level of national production. Enforcing controls on production would be a problem. An MPCP would result in trade-offs between various sectors of the economy: farmers, natural resources, consumers, agribusiness, and the Federal Treasury. Although the incomes of farmers would increase in the short term, the gains might later be offset by production inefficiencies and rising consumer prices. Improving one sector could cause changes in another sector that could offset the improvement. The concept of mandatory production controls was rejected during the debate over the 1985 Food Security Act. However, high costs of the Act, continued financial stress for some farmers, and limited expansion of exports have renewed interest in revising the current law to include mandatory restrictions. Such restrictions would benefit certain sectors of the economy but hurt others. (KC)

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Mandatory Production Controls

Mandatory restrictions on agricultural production continue to be suggested as an alternative policy for reducing price-depressing surplus production, increasing farm income, and cutting farm program costs. A mandatory production control program, as with any farm program, would result in tradeoffs between various sectors of the economy. The concept of mandatory production controls was rejected during the debate over the 1985 Food Security Act. However, high costs of the 1985 Act, continued financial stress for some farmers, and limited expansion of exports have renewed interest in revising the current law to include mandatory restrictions. Such restrictions would benefit certain sectors of the economy but hurt others.

The claim that mandatory restrictions on agricultural production can simultaneously increase farm income and reduce farm program costs is an appealing prospect. During the policy debate over the Food Security Act of 1985, policymakers generally agreed that mandatory production controls could increase farm income and prevent further increases in surplus and farm program costs. However, they were concerned over the effects of such controls on consumer food costs, input industries, export markets, import levels, and the livestock sector. The conventional wisdom was that, on balance, these effects would be generally negative to the welfare of society.

During the first 2 years of the 1985 Act, we have observed record levels of commodity program outlays, continued growth of some crop surpluses, and continued financial stress. This situation has fueled renewed interest in different farm policy approaches, including that of mandatory production controls.

A mandatory production control program (MPCP) has been suggested as a solution to many of the farm sector's problems. If production were reduced to the extent that supplies became tight, prices farmers receive for controlled commodities would rise, thereby increasing farm income. An MPCP would make it illegal for farmers to produce or sell to others more than specified amounts of certain commodities. All producers of any controlled commodity would be required to participate. Fines or other legal penalties would be used to enforce the restrictions. A farmer might be allowed to produce certain commodities controlled by the program for use on the farm, but all commodities entering the marketplace would be subject to controls.

An MPCP regulates agricultural production through limits on land use and on sales of agricultural commodities. Other alternatives exist to regulate farm production. For example, limits can be placed on the use of fertilizers, pesticides, and irrigation water. But, acreage allotments and marketing quotas are the most commonly used and discussed approaches.

An MPCP could initially slow the trend toward fewer, larger farms. Depending on how much farm prices are increased, farm income could rise, keeping some farmers from going out of business. But, an MPCP, as with most farm programs, would result in tradeoffs between various sectors of the economy. The initial income increase would accrue to current owners and operators. New entrants would face higher asset costs as the higher returns would be capitalized into farmland. Would the overall effects of an MPCP be positive or negative (see box)?

HOW DOES AN MPCP WORK?

An MPCP can be implemented through two methods:

- *Acreage allotments.* Individual farmers would be restricted as to the number of acres that they could plant to a particular crop. Additional restrictions could be placed on what may and may not be done with the land taken out of production. For example, farmers may be required to place the land in a conserving use to prevent soil erosion and overproduction of noncontrolled commodities. Acreage allotments would be decided based on the number of acres each farm previously planted to the crop.

- *Marketing quotas.* Individual farmers would be restricted as to the amount of the product that they could sell to others. Restrictions would not be placed on land use but on the amount of the product that could be sold on the open market.

Both types of production controls would depend on an estimated, government-specified level of national production. The commodity's market price would rise to a desired level, assuming that the national production level and the price increase associated with the MPCP are correctly estimated. Price support loans under the Commodity Credit Corporation could be retained to provide a floor for prices. However, surpluses could result if the supply of the controlled commodity exceeds the demand at the minimum price. Government program costs would then be incurred to support the price.

The national production estimate would be broken down by State, county, and farm operation. If the estimates were wrong, rules would be needed to dispose of any excess production on individual farms. One option would be to permit onfarm use of the commodity. For example, corn could be fed on the farm to poultry, hogs, or cattle. Another option would be to store the commodity to help fill the marketing quota the following year. Or, the commodity could be destroyed.

Enforcing controls on production would be a problem. Who will determine whether or not individual farmers have produced more than their allowable share, and what types of penalties will be imposed for failure to comply with the program? If an MPCP remains in effect over time, rules would be needed in terms of how the rights to produce can be transferred or reallocated to others. A farmer may have to return the rights to the government, which would then reallocate them or, more likely, sell them to others. The rights to produce may be tied to the farmer, the farm, or the acreage used to produce the crop.

WHAT ARE THE EFFECTS OF AN MPCP?

An MPCP would result in tradeoffs between various sectors of the economy: farmers, natural resources, consumers, agribusiness, and the Federal Treasury. Improving one sector could cause changes in another sector that could offset the improvement. The effect is similar to pushing a finger into a balloon in which another part of the balloon must expand to take up the added pressure.

What Happens to Farmers?

Both an acreage allotment and a marketing quota would similarly affect farmers. One of the major purposes of an MPCP would be to raise farm income. An MPCP could be effective in the short run in raising income of producers of controlled commodities because market prices of these commodities would rise when production is restricted. But, prices would have to rise enough to compensate for the loss in income support (deficiency payments provided under the current farm programs). Over time, however, the increase in

General effects of a mandatory production control program

Effects on:	*Positive effects*	*Negative effects*
Farmers:		
Crop producers	Land prices rise	Per-unit production costs rise New entrants have more difficulty Program benefits largely go to existing landowners
Livestock producers	Net income rises Red meat and poultry prices may rise, especially if livestock production is controlled	Feed costs rise
Natural resources:		
Erosion/ productivity	Erosion declines	Per-acre erosion rises with acreage allotment
Water quality	Delivery of nonpoint pollutants falls	Local problems may intensify with acreage allotment
Consumers		Food costs rise Inflation may rise
Agribusiness:		
Food processors and distributors		Volume of farm products transported, processed, and marketed falls Employment falls Production facilities underused
Input suppliers		Use of manufactured inputs falls Employment falls Production facilities underused
Federal Treasury:		
Price supports	Savings from elimination of programs Storage costs fall	
Exports		Export markets lost Bargaining power to eliminate protectionist policies lost Export enhancement program may be needed

income would be eroded by production inefficiencies and the capitalization of acreage allotments into higher land prices. In addition, if production of a commodity like feed grains is constrained, sectors that use grain as an input, like the livestock sector, would suffer from increased per-unit costs for feed grains.

Production Efficiency

An MPCP would affect production efficiency in several ways:

- o With an acreage allotment, freedom of choice in farm operations would be constrained, a major consideration to many farmers in weighing the mandatory control alternative against other policies. Further, farmers would intensify input use on the limited acreage, counteracting efforts of farm program administrators to control production. With a marketing quota, farmers would have more flexibility than with an acreage allotment but less than they currently have.

- o The rigidity of controls would dampen market incentives that normally pressure inefficient producers to stop production and give efficient producers an opportunity to expand production. The result is an overall increase in production costs.

- o Farmers would have more incentive to continue producing crops for which they no longer have a comparative advantage at market-determined prices.

- o An MPCP would idle land, labor, and farm resources. These idle resources could be diverted to production of other commodities that are not controlled, perhaps creating new surplus commodity groups. Some restrictions concerning use of idled land accompany acreage allotments.

- o Farmers would have an incentive to combine crop and livestock operations as a means to consume production in excess of a marketing quota. Feed grain producers could buy livestock to consume excess production, while livestock producers could buy land to produce feed grains for onfarm consumption. Or, grain and livestock farmers could combine their farms into one operating farm to circumvent the marketing quota. Such actions could result in more stringent controls that would affect producers who do not raise livestock more than those who do.

Capitalization of Program Benefits

Under an MPCP, the right to produce and sell a product would take on value. Individuals wishing to enter agriculture or to expand existing operations would have to buy the right to produce controlled commodities. If the right to produce is tied to land, rental rates and purchase prices would rise to reflect the value of the acreage allotment. Rental rates, primarily reflecting share leases, would increase under an acreage allotment program. Land prices would reflect the expected future value of allotments. For example, under the current allotment program for tobacco, the right to produce and market tobacco sells for as much as $3,000 per acre. Therefore, individuals or landowners initially awarded allotments would receive the benefits. Future producers would have to pay for the right to produce, reducing or eliminating the economic value of the allotment to them. Holders of allotments would have strong incentive to ensure that quotas remain in place over time. Thus, political pressure could be expected to retain the MPCP.

Livestock Producers

Feed grains are a primary input for livestock production. An MPCP designed to cut back on feed grain production and subsequently to raise prices would initially raise costs of livestock production and reduce profits. Livestock farmers would react by adjusting feeding rations.

For example, beef cattle could be fed more grass and hay (assuming that these crops are not controlled). Thus, more grass-fed beef cattle could be marketed because of the relative cost advantage. Also, farmers would reduce herd sizes because of the higher feed costs, thereby raising livestock prices over time. Overall profitability of livestock production would likely decline, unless livestock prices increased substantially. Assuming that onfarm use is allowed, farmers would have an incentive to combine crop and livestock operations as a means of reducing feed costs.

What Happens to Natural Resources?

An acreage allotment program should initially reduce total production costs as the amount of land devoted to crop production declines. However, average quality of land used for production would increase because farmers would remove their poorer quality, less profitable land from production. Farming the most productive land would raise average yields on land remaining in production. This tendency toward increased yields would intensify as farmers realize that the returns would exceed the costs of producing additional bushels of the controlled commodity. Thus, as prices rise with a limit on planted acreage, farmers would use more fertilizers, pesticides, irrigation water, and seeds per acre, further raising yields per acre. Increased input use would raise per-acre production costs. This program slippage, as it is often referred to, means that, over time, additional acreage would have to be removed from production to meet the fixed production goal of the MPCP.

Estimating yield response would be a critical consideration in implementing an acreage allotment. If yield response is underestimated, production would exceed the target level and some form of government program would be needed to store excess production or to market the commodities abroad. As an alternative, excess production could be sold on the domestic market, dampening the price increase that results from the MPCP.

With a marketing quota, farmers would have more flexibility in deciding how to use their land for production, would have less incentive to increase yields, and would use more land to produce crops. As a result, per-unit costs would not increase as much as with an acreage allotment. However, many farmers would overplant crops to ensure that they would meet their allowable marketing quota. The overproduction might be stored for future use, destroyed, or possibly used onfarm to feed livestock. In fact, with a marketing quota, farmers would have an incentive to expand or establish livestock operations in conjunction with crop operations to avoid buying and selling crops on the open market.

Reductions in land use induced by an MPCP would reduce cropland erosion, thereby maintaining soil productivity and reducing damage to water from sediment and nutrients. However, the more intensive use of land that would remain in production with an acreage allotment could increase per-acre losses of soil, nutrients, and pesticides. But, because fewer acres would be used for production, total erosion would be lower with an acreage allotment than with a marketing quota. Under a marketing quota, farmers would have less incentive to increase yields through more intensive use of land. The more intensive use of some fields with an acreage allotment could intensify local conservation and water quality problems. Pollution of ground water is particularly sensitive to increased per-acre applications of nutrients and pesticides.

What Happens to Consumers?

Any program, like an MPCP, designed to increase prices received by farmers would increase consumer food costs. The percentage increase in food costs would be lower than the percentage increase in farm income, primarily because food costs are spread over a much larger population base and because farm commodities represent a small portion of retail food costs (currently about 30 percent). However, total food expenditures would rise by a greater amount than total farm income, assuming that the MPCP raises farm income and

lowers farm program costs. Consumers with a fixed budget would reduce their purchases of other items to offset higher food costs. If the formula that is used to determine support prices under an MPCP includes inflation, a spiral effect could result in which higher inflation rates would lead to higher agricultural prices, which in turn would affect inflation rates. Rising food costs would raise the inflation rate somewhat, which in turn, would raise the costs of many government programs, such as Social Security, that are tied to changes in the inflation rate as measured by the Consumer Price Index.

Low- income families spend a much larger share of their income on food than do higher income families. So, using higher prices to increase farm income would act as a regressive consumer tax. Thus, low- income individuals would pay a substantially greater share of the program costs than if other revenue sources, such as income taxes, were used to raise farm income. In addition, an increase in food costs would raise the cost of welfare programs or food subsidies, such as food stamps.

What Happens to Agribusiness?

An MPCP would affect industries that supply agricultural inputs, process food for consumers, or are involved with agricultural exports. For example, an MPCP designed to restrict feed grain production would raise market prices and reduce red meat and poultry consumption. This in turn would reduce economic activity associated with processing, transporting, and selling red meat and poultry, possibly resulting in substantial losses, displacement of workers, and other structural adjustments in food processing and distributing firms.

A reduction in U.S. agricultural exports from an MPCP could significantly affect economic activities associated with exports. Shippers and others in the transportation sector and firms involved in the actual transactions could lose a significant portion of their market.

An MPCP would reduce sales of fertilizers, pesticides, and farm machinery and would reduce employment in agribusinesses, despite more intensive use of these inputs on land remaining in production. Acreage used for crop production would fall substantially with both a marketing quota and, especially, an acreage allotment, reducing demand for purchased inputs, such as machinery and labor. Machinery use would also decline, creating an excess stock of machinery and generally depressing farm implement industries.

Rural communities would be affected by an MPCP. Farm incomes would rise, thereby generating increased economic activity as farmers spend this additional income. Other sectors of the rural economy would suffer, however, as fewer inputs are used for farm production and as less farm product is transported and marketed.

What Happens to the Federal Treasury?

An MPCP could reduce the need to subsidize or support farm income through Federal programs, thus reducing Federal farm program costs for income support. But, there may be other potential costs to the Government arising from handling surplus commodity stocks or maintaining agricultural trade.

Surplus Commodity Stocks

An MPCP most likely would be designed to reduce surplus commodity stocks, saving the Federal Treasury the expense of having to store the stocks. However, if production exceeds the desired level with an acreage allotment, the Government may have to either dispose of or store the excess. More of the goods could be placed on the market, but then the increase in market price would not be as great as it would have been had stocks remained at their present level.

Administrative Costs

The Federal bureaucracy would have to expand to administer and enforce the program. Because an MPCP raises feed grain prices to livestock producers, crop producers might be tempted to sell feed grains produced in excess of the controlled quantity at a slightly lower price. The incentive to bypass the market would be strong. Monitoring and enforcing an MPCP could be expensive. For example, administrative and enforcement costs of the tobacco program are estimated to be $20 per acre.

Agricultural Trade

Under an MPCP, domestic prices for controlled commodities would be higher than prices for the same commodities in other countries. Foreign demand for U.S. farm commodities could decline dramatically. Hence, rising domestic prices could place tremendous burdens on the Federal Government to make up the difference between domestic and world prices with export subsidies to ensure our continuing presence in the world agricultural market. Costs could be both direct monetary costs and political costs in terms of losses in negotiating power with respect to trade issues. If U.S. farm prices do rise as a result of the program, agricultural exports would probably decline, unless some offsetting government program were introduced.

The export market could be maintained in two ways:

- *Export subsidies.* Subsidizing exports to make up the difference between the higher domestic price and the lower world price could be quite costly to the Federal Treasury. Costs of an export subsidy could exceed the savings that result from eliminating farm income support programs.

- *Trade agreements.* The United States could enter into a trade agreement with other major exporting countries to force a rise in world commodity prices by restricting production and exports in each of the participating countries. This type of cartel agreement has proven to be unstable in the long run, as the recent difficulties of the OPEC cartel for oil demonstrates. An agricultural cartel would be even more difficult to maintain because many countries have the potential to expand production to take up at least a portion of the slack created by reducing production in cartel countries.

Prohibiting imports of the controlled commodities would be necessary for an MPCP to be successful in raising domestic prices. Otherwise, imports would substitute for domestic production, mitigating the overall increase in prices and gross farm returns. In addition, even if direct imports are prohibited, much of the current U.S. food processing would move to other countries to take advantage of lower market prices for commodities in those countries. For example, with the current sugar supply control program, much of the processing of sugar and sweetener products has moved to other countries and the United States imports sweeteners imbedded in processed products.

Higher U.S. prices would encourage investment in greater agricultural production capacity in other countries. An MPCP in the United States would essentially provide a profitable market for otherwise uncompetitive foreign production.

If the United States were to significantly restrict agricultural imports and exports, it would undermine the U.S. position of encouraging global trade liberalization. Over the years, the United States has supported free markets for international commodities and has signed numerous antiprotectionist agreements, including the General Agreement on Tariffs and Trade. Potential long-term gains from liberalized trade could be sacrificed for short-term gains for producers of some protected farm commodities.

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Current debate on farm policy is based on conflicting reactions to the 1985 Food Security Act. A decision made on behalf of one group may have unanticipated or adverse effects on others. The bulletins listed below are part of a series published by USDA's Economic Research Service aimed at informing those debating farm policy about the highly interrelated nature of agricultural policymaking. For more information on upcoming bulletins, write to USDA-ERS Information, Room 237, 1301 New York Avenue, NW., Washington, DC 20005-4788.

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