

Approach E

CHANGING MARKET SUPPLY BY RESTRICTING INPUTS

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Limiting of inputs available for production, often coupled with price supports or incentive payments, historically has been the predominant method of controlling market supply. The principal attempts to restrict inputs have been acreage allotments and the Soil Bank, direct restrictions of the land input. What are the consequences of such a program?

Conceptually, several alternative methods (either by commodity or aggregative) may be used in restricting inputs:

1. Restrict a single input for individual commodities.
2. Restrict a single input with farmer's choice on allocation among farm enterprises.
3. Restrict a bundle of resources for individual commodities.
4. Restrict a bundle of resources leaving their allocation to the discretion of the farmer.

In effect, programs designed to restrict a single input may divert a bundle of resources. For example, a program to restrict land might simultaneously reduce the quantities of other resources used in farm production. More comprehensive results in restricting inputs may be obtained by direct marketing quotas than by restriction of a bundle of resources.

DESCRIPTION OF THE PROGRAM

It is recognized: (1) that the share of the total supply of farm commodities produced by an individual farmer is too small to influence market price and (2) that the short-run demand for farm products is inelastic; hence, that farm prices and incomes may be raised by restraints on market supply through restrictions on inputs.

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The type of program outlined below supplements previous measures to restrict inputs by adding such features as cross-compliance and transferability of the restricted input to encourage efficiency and tighter control of market supply. The suggested framework is applicable under the free market or with price supports. The program includes the following steps:

1. Designate the commodities for which the input will be restricted.
2. Predict price-demand relationships for the designated commodities.
3. Determine equitable prices for the commodities.
4. Estimate the production needed, either:
 - a. To clear the open market at the prices specified to be equitable.
 - b. Or to prevent unmanageable surpluses if price supports are used.
5. Determine the quantity of the restricted input needed to yield the given production.
6. Allocate the input allotments among producers and require cross-compliance.
7. Provide freedom to transfer the restricted input among producers.

EXAMPLES OF RELATED PROGRAMS

The tobacco program illustrates the restriction of a single input (namely land) for a single commodity. National tobacco marketing quotas, if approved by growers, are announced prior to each planting season and are converted to acreage allotments based on expected yield. Annually, each producer's allotment is increased or decreased from a historical base in line with the change in the national allotment.

The relative success of acreage controls on tobacco has been due to: (1) non-perishability of the product and (2) willingness of producers to accept regulations. Prices of tobacco have been stabilized through the accompanying price-support program. Removal of this source of uncertainty has facilitated production planning on farms. On the other hand, the size of acreage allotments has shifted downward due to increased yields, loss of markets to foreign production, and use of reconstituted tobacco by manufacturers (see Table 1).

Acreage allotments have also been employed with cotton, corn, wheat, and rice. Without cross-compliance features, these acreage allot-

TABLE 1. AVERAGE PER ACRE YIELD, NUMBER OF ALLOTMENTS AND ACRES ALLOTTED OF FLUE-CURED TOBACCO, 1933-1956

Year	Yield	Allotments*	Acreage Allotted*
	<i>Pounds</i>	<i>Number</i>	<i>Acres</i>
1933	797		
1934	822		
1935	928		
1936	790		
1937	875		
1938	866		
1939	922		
1940	1,025		758,000
1941	905		762,000
1942	1,024		841,000
1943	938		895,000
1944	1,069	190,338	1,095,134
1945	1,088	194,737	1,118,725
1946	1,137	201,401	1,257,106
1947	1,135	204,147	1,246,765
1948	1,233	205,128	907,602
1949	1,191	206,896	959,463
1950	1,312	209,408	968,595
1951	1,309	210,735	1,119,309
1952	1,229	213,236	1,127,371
1953	1,245	213,541	1,044,543
1954	1,261	214,403	1,053,135
1955	1,497	212,970	1,007,023
1956	1,609	211,152	887,575

*Information not available since allotments were not computed on same basis.

SOURCE: *Annual Report on Tobacco Statistics*, Agricultural Marketing Service, U. S. Department of Agriculture, various issues.

ment programs have permitted shifts to other commodities. Under the Conservation Reserve provision of the Soil Bank, total land for cultivated crops is reduced for participating farmers, but the farmers may select any combination of crops on the remaining cultivated land.

In addition to programs restricting land, certain programs designed for other purposes may, by coincidence, restrict inputs. For example, wartime rationing resulted in the restriction of inputs from nonfarm sources, although farmers were offered considerable priority among civilian users as a stimulus to production. The market, based on price outlook, incidentally rations capital. At present the FHA limits on poultry loans is a deliberate restriction of capital.

Restrictions on technology have generally been considered to violate individual freedom and to impede progress.

As compared with land, direct restrictions on capital, labor, and nonfarm inputs for farm production face serious criticism since such

measures more obviously involve nonfarm industries as well as farmers.

EVALUATION OF THIS GENERAL PROGRAM

EFFECT ON PRODUCTION. The program would facilitate production planning on individual farms. With maximum inputs for certain commodities specified, plans for other enterprises may be easily formulated. The reduction of risk of price variability also helps. The program specifies that the restricted input cannot be used to produce other commodities. Since rights to the restricted input might be transferred, production needs may be obtained from better organized farms. These farms may be able to produce at lower costs due to high rates of production per unit of input.

Several factors prevent complete control of supply by the restriction of inputs:

1. The total supply of a farm product is not likely to be perfectly predictable due to variations in weather, etc., or to incomplete knowledge of the technology which would be used by farmers.
2. Disproportionately high restraints must be placed on the input to obtain a specified reduction in output, since farmers tend to use the more productive of the inputs under quota (such as the best land).
3. Where only a single input is restricted, use of other inputs tends to be concentrated on the restricted input.

Geographical shifts in production are probable if rights to use of the restricted input are fully transferable. Shifts in the major areas of production are possible. For example, participation in the Soil Bank would vary by regions if rates of compensation were not related to productivity of resources.

EFFECT ON DEMAND AND CONSUMPTION. Possibilities of increasing income through control of market supply is contingent on the inelastic demand for farm products. However, long-run demand relationships are subject to change. A program to restrict inputs may result in: (1) increased production of farm products in other countries, (2) development of new products and processes which compete with farm products, and (3) substitution of other products by consumers.

EFFECT ON INCOME. Two long-run trends will tend to nullify gains in net farm income: (1) added returns become imputed to the value of the restricted input and hence to costs of production, and (2) added returns may deter the transfer of persons from agriculture with the result that net income must be divided among a larger farm population. The system of restricting inputs to individual farmers (historical base

or otherwise) influences the distribution of income. Permitting transfers of the restricted inputs results in concentration of any short-run income increases on the more efficient farms.

OTHER IMPLICATIONS. Many current economic forces and politically accepted programs tend to increase rather than reduce productivity. A program to restrict inputs requires provisions to compensate for such programs of conservation, reclamation, and irrigation; research and education; and supplementary credit.

A program of input restrictions involves compromise with many values of American society, such as encouragement of progress, freedom of choice in use of resources, and production of abundant supplies of food and fiber at low cost. Restriction of inputs beyond the level dictated by price conflicts with the popular concept of efficiency.

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