Chapter 11

Economic Implications of Alternative Agricultural Policies
(A Summary of Staff Reports for the Joint Economic Committee)

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As farm families entered the 1960's their incomes were lower relative to nonfarm incomes than at any time since the 1930's.

Low farm incomes persist at the present time in spite of:
(1) A net migration of 7.2 million people from farms in the past 10 years and a decline of 4.8 million in farm population;
(2) A 1.1 million reduction in number of farms; and
(3) Farm price support, soil bank, and surplus removal programs, which increased farm income several billion dollars in each of the past 8 years.

The purpose of this study is to illuminate the farm income and adjustment problem in the 1960's and to analyze the economic implications of alternative policies for dealing with it.

FARM FAMILY INCOMES VARY WIDELY

In 1958, the latest year for which data are available, over a million farm families had incomes of less than $2,000. Family income takes into account income from all sources, including home-produced food, fuel, and shelter. Farm production expenses are deducted. Only 336,000 farm families had incomes of $10,000 or more. The number of farm families in each of 5 income groups in 1958 is shown below:

Farm family personal income from all sources before income taxes:	Number of farm families
Under $2,000	1,177,000
$2,000 to $2,999	834,000
$3,000 to $4,999	1,242,000
$5,000 to $9,999	1,160,000
$10,000 and over	336,000
Total	4,749,000

Source: U. S. Department of Commerce.

In 1947, farm families made up 47 percent of those in the lowest income fifth of all families in the United States. Although there were over 1 million fewer farm families in 1958, their relative income position had worsened--50 percent were in the lowest income

fifth of all families. The percentage of farm and nonfarm families in specified personal income classes in 1958 is shown below:

Family personal income class before income tax	Farm families (percent)	Nonfarm families (percent)	Farm families as percentage of total
Under $2,000	25	6	33
$2,000 to $2,999	18	6	26
$3,000 to $4,999	26	24	12
$5,000 to $9,999	24	47	6
$10,000 and over	7	17	5
Total	100	100	----

Source: U. S. Department of Commerce.

Wide variations in incomes persist in agriculture primarily because of the range in size and productivity of farms.

In 1954, the latest year for which comparable data are available, 12 percent of all farms--those with sales of $10,000 or more--marketed 58 percent of all farm products. At the other extreme, families obtaining most of their income from farming but on small farms with sales of $2,500 or less--43 percent of the total--produced only nine percent of the products marketed. A full 30 percent of the farms were part-time farms or country residences, and produced only two percent of the farm products marketed.

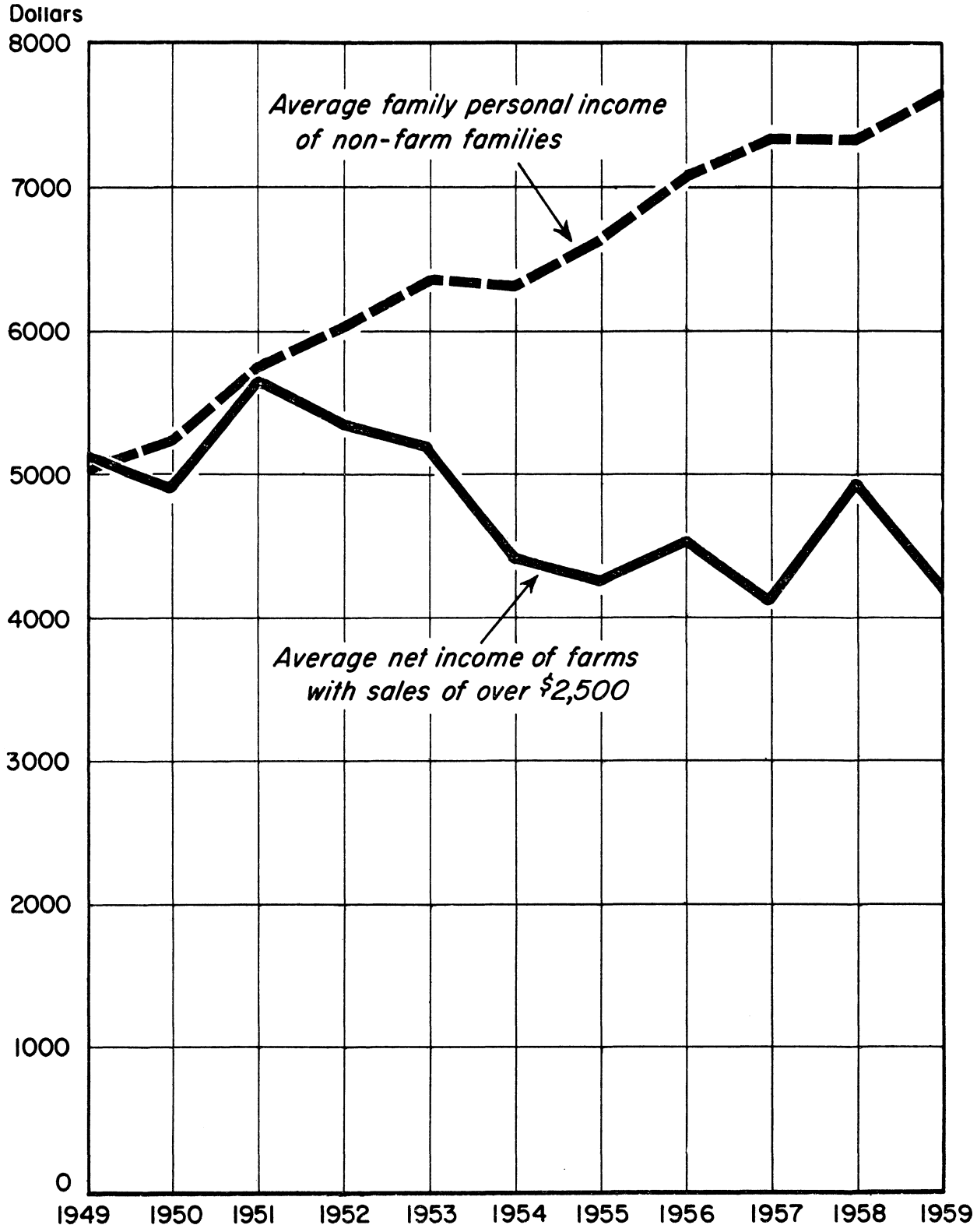
Because of the wide range in the size and productivity of farms, it is helpful to divide them into two major groups--commercial farms with $2,500 or more products marketed--and all others, often referred to as low income farms.[1]

In spite of a decline of almost two million farms in the past 15 years, the number of commercial farms with sales of $2,500 or more has remained remarkably constant at about 2.1 million. With the trend in farm consolidations continuing, a decline of perhaps five percent in number of commercial farms may occur by 1965.

The worsening relative income position of families on commercial farms in recent years is illustrated by figure 11.1. Taking into account income from all sources, families on commercial farms in the period 1949-52, received incomes approximately equal to those of all nonfarm families. Although data on income from off-farm sources are not available for recent years, it appears that in 1959-60 average income of nonfarm families may have been 30 percent higher than the average income of families on commercial farms.

[1] The noncommercial, or low-income farms with less than $2,500 of farm product sales produce less than 10 percent of the products marketed.

FIGURE 11.1. Estimated average net income of farms with sales over $2,500 and average family personal income of nonfarm families, 1949-59.[1]



[1] Estimated from U.S. Department of Agriculture and U.S. Department of Commerce data. Families on farms with sales of over $2,500 also received income from nonfarm sources averaging $800 to $1,600 per family during this period.

Trends in the return to labor on farms and in other industries also indicate increasing disparities. In 1951-52, workers on farms, including owner-operators, received a return of $0.90 an hour for their labor as compared with $1.63 for manufacturing employees.

In 1959, returns to labor on farms was $0.75 an hour, only one-third of the $2.22 received per hour by workers in manufacturing.

DYNAMIC FORCES IN AGRICULTURE

It is the dynamic forces in operation in agriculture which will give rise to continuing income and adjustment problems in the 1960's.

Farm output per man-hour increased threefold in the past 20 years, and almost doubled in the last 10. Utilizing about the same cropland area, farm output increased 60 percent in the past 20 years and 25 percent in the last 10. Increased crop production per acre accounted for almost two-thirds of the increase in farm output in recent years. The average annual change in farm production and source of change is shown below:

Average annual change in factors contributing to farm output, 1947-49 to 1957-59

Source of change	Index points	Percentage of total
Reduction in farm-produced power	0.33	16
Increase added by livestock and pasture	.83	39
Decrease in cropland used	-.40	-19
Increase in crop production per acre	1.37	64
Average annual change in farm output	2.13	100

Source: Agricultural Research Service.

Since 1947-49:

Farm output per unit of input has increased 24 percent;

Production per breeding unit of livestock has increased 25 percent;

Feed consumption per 100 pounds of broilers produced has declined 30 percent;

Output of all livestock and livestock products per hour of labor has increased 44 percent;

Output of all crops per hour of farm labor has tripled;

The rate of increase in farm output per hour of labor has been three times the rate of increase for nonfarmworkers.

Dynamic forces affecting agricultural production in the 1960's include rapid technological advances in production practices, sweeping changes in organization of farm production and marketing, and continued growth in use of nonfarm inputs. Most increases in farm production have resulted from purchases of nonfarm items such as fertilizer, machinery, fuel, and pesticides. If innovations were to stop today, purchases of nonfarm inputs would continue to increase for several years. Farmers have just started using many of the new pesticides, new feed additives, and the newest farm equipment. Fertilizer use is still less than optimum. Even though farm prices decline further, increased fertilizer use would still be profitable for many crops on many farms.

Added production achieved by using new technology costs less per unit of output than when using previous production practices. Farm technological advances typically involve increased quantities of non-farm resources, increased farm output, and lower costs per unit of output. Under these conditions, with unrestrained price competition, increases in total farm output depends primarily on the rate of adoption of new technologies and on the upward trend in the use of fertilizers, weed killers, pesticides, feed additives, and other nonfarm inputs. Usual supply and demand forces do not achieve equilibrium in agriculture at satisfactory price and income levels under conditions of rapid technological advance. The extremely inelastic demand for farm products causes sharp price declines when supplies increase faster than population growth. Previously committed resources--tractors, improvements in land, specialized machinery and most farm operators--cannot shift out of agriculture in response to price declines. Thus the addition of new output increasing practices becomes the most profitable alternative to the individual farmer in spite of low prices.

As an industry agriculture differs from most others. Relatively little labor is hired and purchased supplies are a smaller part of total costs than in manufacturing. Economic incentives encourage the full use of all land, labor, equipment, and unit cost-reducing technologies as long as the family continues to farm. In the present state of agriculture's development, farm output may be increased with fewer farm operator families and workers as mechanization of crop and livestock production continues.

With rapid technical advance the cost-price squeeze drives those with capital available into output-expanding, cost-reducing investments. Eventually, however, farmers are unable to replace wornout equipment or purchase needed current supplies, and farm production fails to increase. But under such conditions a long period of depressed farm income, falling land values, and farm financial distress appears probable.

Agriculture has greater difficulties than manufacturing industries in assimilating rapid technological change. Farmers are price takers under current market organization in contrast to industrial firms which typically establish sales prices and produce to supply their markets at stable prices. Manufacturers typically make differentiated, trademarked products, often using patented processes. They utilize purchased materials and hired labor. New technological processes are adopted to lower costs. But, utilizing purchased materials and hired labor for the most part, they limit production to amounts that can be sold at prices in line with costs.

Workers displaced by labor-saving equipment suffer income losses but are cared for by unemployment insurance and welfare services until they find new employment. Industrial workers usually have less difficulty than farmworkers in finding new employment, since they usually live in urban areas accessible to new employment opportunities. Also, their experience better fits them for other industrial employment than the experience of farmworkers. It is these differences in economic organization of the industries which make it possible for most manufacturers to operate profitably at less than full capacity while assimilating rapid technological change and prevent agriculture from following similar practices.

Farm youth have limited income earning opportunities.--Agriculture has other critical problems resulting from dynamic forces. Approximately 220,000 farm boys reach working age each year, yet there are only about 23,000 openings for new farmers on farms offering promise of a net income of $1,500 for the farm family.[2] Approximately 90 percent of the young male workers in farm families must look forward to nonagricultural careers or to low levels of income from farming.

Looking forward in the 1960's, one finds no evidence that increases in farm output will soon level off. Unless the rate of growth in job opportunities increases substantially, however, farmworkers' difficulties in finding nonfarm jobs may increase. Because of the higher birth rate in the 1940's, young workers will enter the labor force in the 1960's at the rate of 2,600,000 a year, a 40-percent increase as compared with the 1950's.

In the past 6 years the net increase in employees in nonagricultural establishments was 2,294,000. Changes in the number of employees engaged in various occupations are shown below:

	Change in number of employees in 1959 as compared with 1953	
	Number	Increase or decrease
Government	1,482,000	Increase
Service and miscellaneous	987,000	Do.
Wholesale and retail trade	858,000	Do.
Finance, insurance and real estate	387,000	Do.
Contract construction	145,000	Do.
Mining	176,000	Decrease
Transportation and public utilities	319,000	Do.
Manufacturing	1,070,000	Do.
Increase in employees in nonagricultural establishments	2,294,000	Increase
Change in workers employed in agriculture (B.L.S. labor force series)	719,000	Decrease

Source: Employment and Earnings, vol. 7, No. 1, U.S. Department of Labor.

[2] From Karl Shoemaker, "Opportunities and Limitations for Employment of Farm People Within and Outside Agriculture," cited by Ernest J. Nesius in "Opportunities and Limitations in Programs for Younger More Flexible Persons Now in Agriculture." "Problems and Policies of American Agriculture," Iowa State Center for Agricultural and Economic Adjustment, 1959, p. 360.

Ewan Clague, Commissioner of Labor Statistics, foresees an increase in professional, clerical and sales jobs in the coming decade, but no increase in jobs for unskilled workers in industry. This, he points out, could lead to a condition of substantial unemployment existing at the same time that shortages of skilled labor occur.[3] These observations are particularly relevant in considering the opportunities of farmworkers, many of whom are unskilled.

Farm youth have educational and geographic disadvantages.--Rural areas have not shared fully in the improvement in education in the past 40 years.

Small school districts, low density and lower income have produced a quality of rural education which, by all available measures * * * is less adequate than education provided in urban systems.[4]

Although much progress has been made in rural education in recent years, further improvement is urgently needed. All measures of education reported in the 1959 census show a wide disparity between farm and nonfarm people. Educational deficiencies of rural youth place them at a disadvantage in obtaining nonfarm employment.

Farm youths face other disadvantages in their shift to nonfarm employment. The growth in job opportunities has not been rapid enough to provide off-farm jobs for all who are willing to work at prevailing wages. The greater distances of farm people from employment centers make farmworkers less readily available for the limited number of newly opening nonfarm jobs.

Farmworkers also often have differences in cultural backgrounds which cause them to be discriminated against when the demand for labor is smaller than the potential supply. These dynamic forces result in agriculture bearing a large share of the economy's underemployment. Whether this situation improves or becomes more serious in the 1960's depends primarily on general economic policies, the rate of economic growth in the economy, and on improvement in education and training of rural youth.

Two aspects of agriculture are worthy of special note in considering the dynamic forces affecting resource adjustments in the 1960's. The first relates to the fixity of both labor and capital in agriculture, once they have been committed. Most of the labor used in farm production is that of farm operators and their families. For very good reasons most farm operators, after reaching 35 or 40 years of age, continue farming even though incomes are discouragingly low. At the same time, many retiring operators are replaced by sons and sons-in-law who will inherit all or a large part of the farm, thus predisposing them toward a farming career. These patterns of behavior slow adjustments in farm size and in the labor employed in agriculture in response to technical innovations and low returns from farming.

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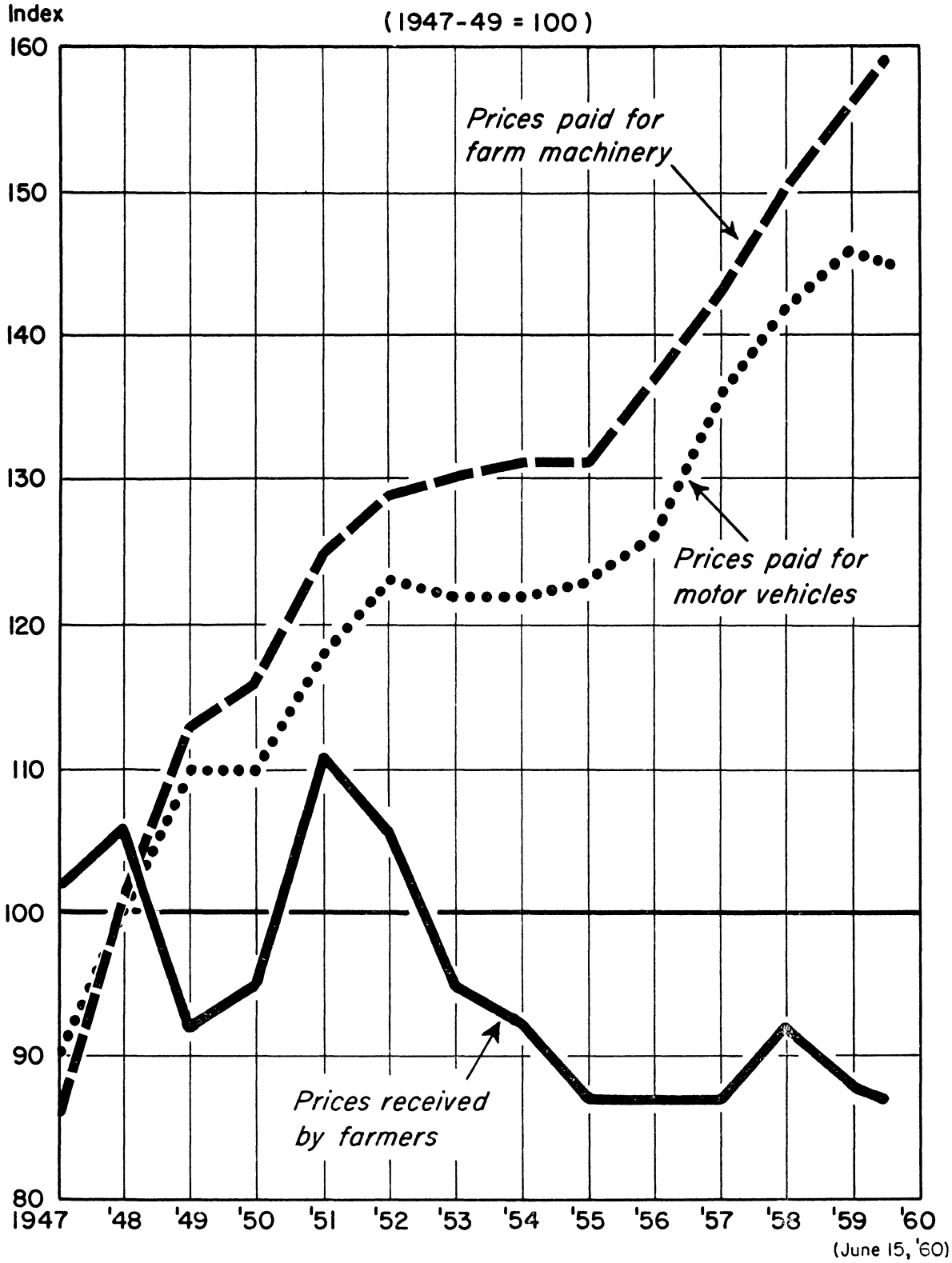
[3] New York Times, Aug. 22, 1960.

[4] Warren Rovetch, "Opportunities and Limitations in Education of Farm Youth," "Problems and Policies of American Agriculture," Iowa State Center for Agricultural and Economic Adjustment, 1959, p. 340.

FIGURE 11.2. Prices received by farmers and prices paid for farm machinery and motor vehicles, 1947-60.



Source: Agricultural Marketing Service, U.S. Department of Agriculture. (Rising prices paid for farm machinery and motor vehicles in part reflect quality improvements in the items priced.)

Capital investments in farming, once made, also tend to be committed for their entire productive life. As pointed out earlier, individual farmers continue to invest in output-expanding, cost-reducing equipment even though farm prices and incomes are relatively low; and improvements in land, specialized equipment and tractors seldom can be shifted to alternative employment even though returns from their use turn out to be far less than anticipated at the time of the investment.

At the other extreme, few industries are as easy to enter as agriculture. In the subhumid areas, small, low-productivity farms can be purchased or leased with little capital. Families who lose out in non-agricultural industries often migrate to rural communities and eke out an existence from farming. Thus there are a number of dynamic forces which lead to overinvestment in capital equipment in agriculture in periods of rapid technological change, retard the rate of increase in farm size, delay the reduction in number of farm operator families, seriously delay adjustments in farm production to market outlets available and add to the difficulties of commodity supply-management programs.

Production cost trends will be important in the 1960's.--Increases in farm production expenses are fully as important as sinking farm prices in creating the serious cost-price squeeze now gripping all farmers. Farm prices fell 12 percent from 1947-49 to 1959 while production expenses increased 45 percent. About half the increase in production expenses was the result of increased quantities of production supplies used, and half was caused by price increases. The trends in prices paid for farm machinery and for motor vehicles are shown in figure 11.2.

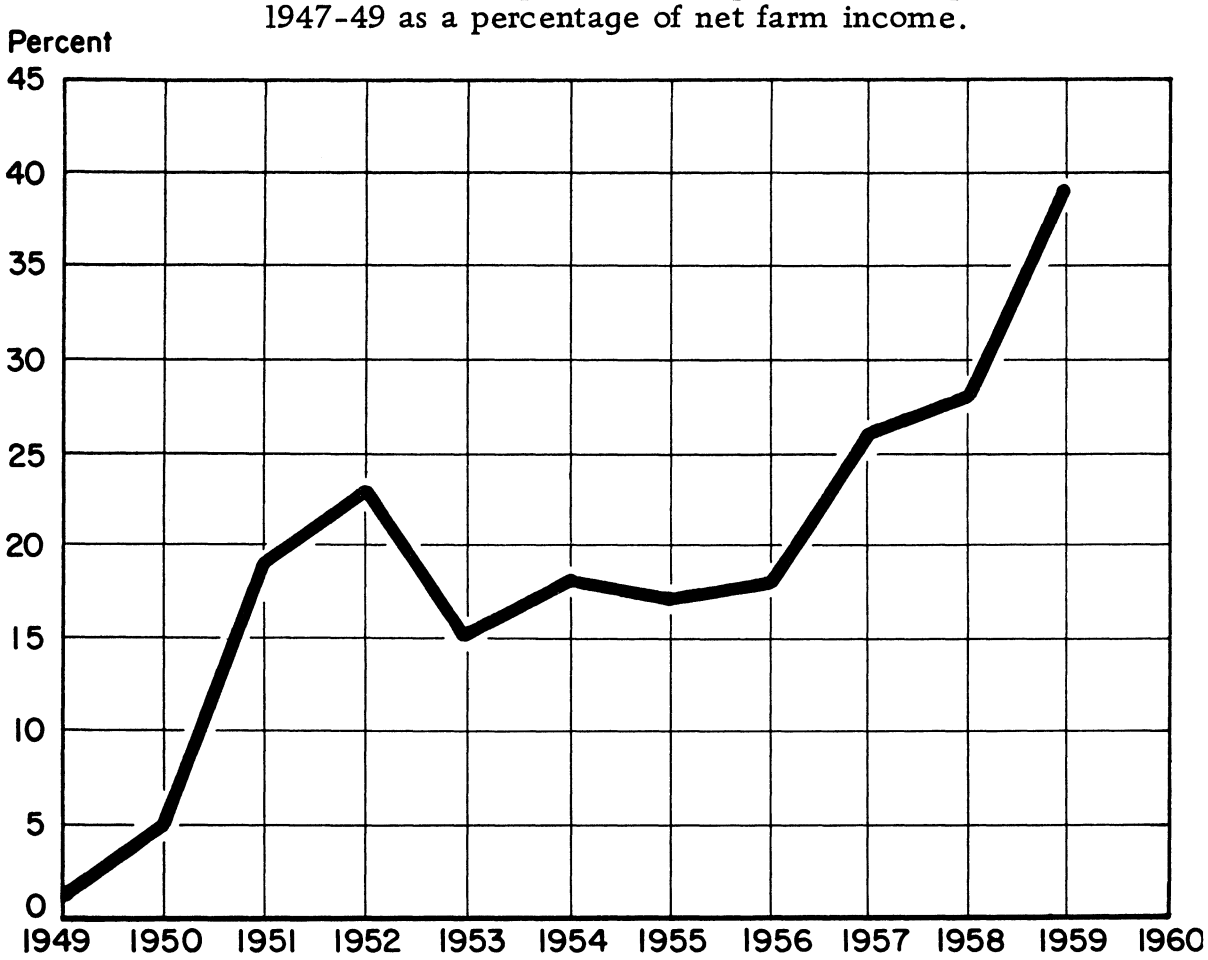
Price increases for industrial products purchased by farmers, 1947-49 to June 15, 1960

	Percent
Farm machinery	59
Motor vehicles	45
Motor supplies	24
Building and fencing materials	33
Farm supplies	12
Fertilizer	6

Wage rates also increased 51 percent; farm real estate taxes increased 90 percent, and interest payments on farm mortgage debts increased 170 percent.

Manufactured product prices have been rising almost steadily in recent years. Price increases since 1947-49 accounted for $4.4 billion, or 17 percent, of farmers' production expenses in 1959 (table 11.1 and fig. 11.3). It is disturbing to note that production expense increases due to price increases more than doubled in the last five years, increasing throughout the business recession in 1957 and 1958.

FIGURE 11.3. Increase in farmers' production expenses due to price increases since 1947-49 as a percentage of net farm income.



Source: See table 11.1.

Table 11.1. Production expenses, increases due to price increases, realized net farm income and related data, 1949-59
(Dollars in billions)

Year	Production expenses		Increase in production expenses due to price increase since 1947-49	Realized net farm income	Production expenses due to price increases as percent of net farm income
	Current dollars	1947-49 dollars			
1949	$18.0	$17.8	$0.2	$13.8	1
1950	19.3	18.6	7	13.2	5
1951	22.2	19.3	2.9	15.2	19
1952	22.6	19.3	3.3	14.4	23
1953	21.4	19.3	2.1	13.9	15
1954	21.7	19.5	2.2	12.2	18
1955	21.9	19.9	2.0	11.5	17
1956	22.6	20.4	2.2	12.0	18
1957	23.4	20.5	2.9	11.0	26
1958	25.2	21.5	3.7	13.1	28
1959	26.2	21.8	4.4	11.3	39

Source: Agricultural Marketing Service, U. S. Department of Agriculture.

AGRICULTURE AND INTERNATIONAL TRADE

Farm price-support and supply-management policies in the 1960's will have important effects on international trade. The United States is by far the world's largest exporter and is the second largest importer of agricultural products. In value terms, imports at times exceed exports. The value of agricultural exports and imports in recent years is shown below:

(In billions)

Fiscal year	Exports	Imports for consumption	Fiscal year	Exports	Imports for consumption
1955	$ 3.5	$ 4.1	1958	$4.0	$3.9
1956	4.7	3.8	1959	3.7	4.0
1957	4.0	3.9			

Traditionally the major U. S. agricultural exports have been wheat, feed grains, cotton, tobacco, and lard. More recently rice, vegetable oils, and oilseeds have become important export items while animal products, fruits, and vegetables have been major items in years of surplus.

Approximately 60 percent of our exports in recent years have moved under Public Law 480 and related programs or have been subsidized if sold for dollars. Exports of agricultural products in the fiscal years 1958, 1959, and 1960 classified as to conditions of sale are shown below:

(In billions)

	Fiscal year 1958	Fiscal year 1959	Fiscal year 1960
Exports under International Cooperation Administration and Public Law 480 programs	$1.2	$1.3	$1.3
Sales for dollars (involving some subsidy)	1.2	.8	1.3
Subtotal	2.4	2.1	2.6
Nonsubsidized sales for dollars	1.6	1.6	1.9
Total agricultural exports	4.0	3.7	4.5
Estimated subsidy in sales for dollars involving some subsidy	.3	.2	.3

Source: Foreign Agricultural Service, U. S. Department of Agriculture.

Traditionally, the major U. S. agricultural imports have been sugar, coffee, bananas, rubber, cocoa, vegetable oils, and wool. More recently imports of cattle and meats have assumed increased importance. Approximately half of the agricultural imports, such as cattle, meats, fruits, vegetables, sugar, grains, cotton, wool, and vegetable oils are directly competitive with domestic production. The others complement, rather than compete directly with, domestic production. These products include coffee, natural rubber, cocoa beans, bananas, tea, spices, and cordage fiber.

Import quotas under the Sugar Act limit imports of sugar. No other import quotas limit physical quantities of imports of farm products except those under section 22 of the Agricultural Adjustment Act of 1933, as amended. This act authorizes the use of import quotas to limit imports which materially interfere with farm price support programs. Imports at present controlled under section 22 are wheat and wheat flour, cotton and cotton waste, certain dairy products, rye and rye flour and meal, flaxseed and linseed oil, peanuts and peanut oil, and tung nuts and tung oil.

If price support and production controls were removed.--Farm price support programs have been criticized for interfering with the freer foreign trade policies advocated by the United States. They have given rise to government-subsidized exports and to quota limitations on imports as indicated above; and future farm income improvement measures may not permit the removal of existing export subsidies and import quotas.

With this in mind, it is important to appraise the extent to which exports have been expanded by subsidies in recent years and the extent to which usual imports have been restricted by quotas to protect domestic price support programs. Most of the present barriers to imports and the current export subsidy programs only offset the special market conditions created by price support programs. If all domestic price supports and limitations of imports were abandoned, imports would not be increased importantly. In some cases they might even decline.

If agricultural price support and control programs were abandoned, prices of several American farm products would drop sharply. Dairy products and wheat prices now substantially above foreign market levels, e.g., would quickly drop, effectively shutting out imports. Even more important, the elimination of price supports and production controls might have serious disruptive influences on world price levels. It is probable that domestic prices would fall below current world prices and exports would increase beyond present subsidized levels.

In the longer run it appears that in the absence of domestic price support and production control programs U. S. producers would either continue recent levels of commercial exports of cotton, wheat, tobacco, vegetable oils, and several other products or expand rather than contract them. Hence it is probable that restrictions on agricultural imports, subsidies on commercial exports, and Public Law 480 programs associated with domestic price support have not greatly altered the normal volume of trade in agricultural products. If more extensive and more effective domestic price and income support programs are adopted in the future, it is doubtful that any of the present quotas and subsidies can be discontinued. It may be necessary to add to the present list. However, if care is exercised in the administration of quotas and subsidies in the future, as in the past, normal volumes of imports and exports may be maintained.

INCREASED EXPORTS ALONE WILL NOT SOLVE FARM PROBLEM IN THE 1960'S

Increasing agricultural production is now almost worldwide and is particularly evident in the major food importing and exporting countries of Western Europe, Canada, Australia, and New Zealand. In some lines, such as the production and export of broilers and feed grains, U. S. production costs are sufficiently lower than those elsewhere as to assure expanded exports without subsidy. With farm production in industrialized countries increasing faster than population, opportunities for expanding exports to these countries may be largely in feed grains to support expanded livestock industries, specialty products adding variety to national diets, and nonfood products such as tobacco and cotton.

Less industrialized countries with rapidly expanding economies and populations may be expected to increase commercial imports of a number of products, especially cereals. Foreign-trade specialists, however, foresee only moderate increases in commercial imports of farm products by these countries in the near future. In short, prospects for sharply increased commercial exports of farm products by the United States are not good.

With hunger and malnutrition widespread in the less developed areas of the world, opportunities for expanding Public Law 480 exports might appear almost unlimited. However, without collateral development programs in these countries, this is not the case. Transportation and distribution systems are inadequate to handle greatly increased quantities of food. Governments also are reluctant to accept substantial special imports of food for a few years without assurance with respect to future supplies.

In the longer run, it is probable that most of the increased food in the less-developed areas must come from increased domestic production. These countries must fit food imports acquired under Public Law 480 programs into development plans which assure adequate future food supplies from home production and commercial imports. Expanded imports under Public Law 480 programs might, under some circumstances, delay and weaken increased home production programs. Responsible governments in underdeveloped countries are unwilling to assume the risks involved in becoming heavily dependent on non-commercial food exports from the United States.

This is not to prejudge the extent to which abundant food supplies in industrialized countries can be utilized effectively to wipe out hunger and malnutrition in underdeveloped areas. Nor does it deny the possibility of increased utilization of abundant foods in speeding economic development in the free world. But there is a definite limit to the quantities that can be used in an orderly manner even in countries where hunger and malnutrition are widespread.

A total of $7.9 billion of farm products (food, livestock feeds, and fibers) have been disposed of in the five years of Public Law 480 programs. This rate of disposal was too slow, however, in relation to current production. Even though production was held partially in check by soil bank programs, stocks continued to accumulate. Expansion of Public Law 480 disposal programs sufficient to reduce stocks to desirable levels, without reducing current production or price levels, does not appear feasible.

DOMESTIC DEMAND FOR FARM PRODUCTS

The market for all farm products, food and nonfood, is increasing year by year. It is expected to grow only slightly faster, however, than the increase in population in the 1960's. Supplies have been more than ample to meet all market demands for the past nine years. Consumers have upgraded their diets, substituting animal products for cereals. In recent years, consumption of red and poultry meats increased 24 pounds per capita and consumption of cereal foods declined by an equal amount. An uptrend in the per capita consumption of fresh and frozen fruits and vegetables also is in progress.

Increasingly, food consumption is based on personal preferences rather than on satisfying hunger at least cost. Nevertheless, demand for all food is limited by family income levels and by the physical capacity to enjoy food.

Although Americans would consume larger quantities of the higher priced cuts of meat and fresh and frozen fruits and vegetables if the prices were lower, few would increase their total consumption of food in response to lower prices. As a result of sharply higher weekly wages and only slightly higher retail food prices, expenditures by urban wage earners' families for a fixed basket of farm-produced food dropped from 32 percent of weekly earnings in 1950 to 24 percent in 1959. Food costs in relation to workers' earnings at the beginning of the 1960's are the lowest on record and probably lowest in the world.

Only 10 to 12 percent of the nonfarm population need to spend 40 percent or more of their income for food to achieve an adequate diet. University of Minnesota studies indicate if food purchased by these families were raised to the level of all nonfarm families, market demand for food would be increased only one to two percent.

Also, fewer than six percent of the nonfarm families received incomes of less than $2,000 in recent years--fewer than four percent of the people are receiving welfare assistance either from states or under social security. More generous food distribution programs for these people, while important to their welfare, would increase food consumption relatively little.

At the present level of economic development in the United States the demand for food increases primarily with the increase in population. With stable prices, per capita income increases of 10 percent may increase the market demand for food only one to two percent.

Increases in food supplies in excess of population increases cause sharp farm price declines. A five percent increase in supplies results in farm prices dropping 15 to 20 percent or more.

Demand for nonfood products limited by substitutes.--Demand for nonfood products such as timber, cotton, and wool is not limited by physiological needs as in the case of food. Rather, it is limited primarily by the cost and substitutability of competitive products. Research carried on by the Agricultural Research Service and the land-grant colleges discovers and develops new uses for farm products. In 1959 patents were issued on 96 new processes or new products developed by the utilization research staff of the Agricultural Research Service.

Over a period of years, however, farm products have lost ground in competition with products of nonfarm origin. Forty years ago some 85 million acres of cropland were devoted to the production of feed for horses doing the work now performed by motor power on farms and in cities. Rayon and other manmade fibers have displaced cotton and wool in many industrial and clothing uses. Synthetic detergents have displaced farm-produced animal fats in the soap market; industrial products are taking the place of farm-produced drying oils in paints. Plastics, and paper products from forests, have displaced leather and cotton from farms in many uses.

The goal of farm utilization research--the discovery of new products useful to society--is most commendable. Research is a long-run activity. It is important in holding and expanding existing markets for farm products. New industrial uses for farm products are unlikely, however, to provide large-scale outlets in the near future for farm products now in overabundance.

FARM INCOME WITH PRICE SUPPORTS REMOVED IN THE 1960'S

In the past seven years an average of $2.2 billion, or seven percent of total farm marketings, were removed from commercial channels by surplus disposal and storage programs. If these programs were dropped without replacement by others, farm income would drop several billion dollars. Projections of farm production, prices and income for 1965 indicate a drop in net income of 36 percent from 1959 and 45 percent from 1958 if production controls and price supports are discontinued. Prices of the price-supported crops of cotton and wheat would drop 30 to 50 percent. Prices of the uncontrolled feed grains and livestock also would drop 10 to 30 percent below recent levels. The index of prices received by farmers would decline 21 percent from 1959.

These projections provide (1) that existing surplus stocks be isolated and disposed of outside usual markets, and (2) that Public Law 480 exports from 1965 production be continued at about recent levels. They also provide for a conservation reserve of 30 as compared with 28.7 million acres in 1960. Marketing quotas for tobacco are assumed to continue.

Projections assume continued economic growth.--These projections are estimates of the probable situation in 1965 under specific assumptions. They are not forecasts of expected prices and incomes. The latter would require estimates of probable changes in Government programs. Stability in the international situation and continued upward trends in population, productivity, and real income per capita are assumed. The specific projections for population, disposable personal income, and per capita disposable income which were used in estimating the demand for farm products in 1965 are as follows:

Year	Population	Disposable personal income (1959 prices)	Per capita disposable income (1959 prices)
	(Millions)	(Billions)	
1958	174.1	$318.4	$1,846
1959	177.0	337.3	1,906
1960	[1] 180.1	[1] 350.0	[1] 1,943
Projections:			
1961	[2] 183.2	[2] 362.4	[2] 1,978
1962	186.2	375.0	2,014
1963	189.3	388.1	2,050
1964	192.5	401.7	2,087
1965	195.7	415.9	2,125

[1] Estimated.
[2] Projections from S. Doc. 77, 86th Cong.

The projections of prices and incomes for 1965 are based on analyses utilizing an as yet unpublished demand model developed at Pennsylvania State University by George Brandow as a contribution to an interregional policy research project designated in the Office of Experiment Stations as IRM-1.[5] The projections indicate that the expected increased production of crops and livestock in 1965 selling at lower prices would lower cash receipts as compared with 1959.

Allowing for lower feed and livestock prices, and assuming physical quantities and prices of purchased supplies will continue to increase at half their longtime trends, higher production expenses are projected in 1965. Allowing for an expected small decline in commercial farms with sales of $2,500 or more, projected net income per enlarged commercial farm in 1965 would be about 30 percent less than in 1959.

The detailed projections of crop acreages harvested, acre yields, livestock production, prices, exports, cash receipts and production expenses, together with similar data for 1959 are shown in tables 11.2, 11.3, 11.4, 11.5, 11.6, and 11.7, which follow:

Table 11.2. Acreage harvested, 1959, and projections for 1965 with price supports and production limitations removed

(In millions of acres)

Crops	1959	Projected 1965
Wheat	53.0	54.0
Corn	84.6	80.0
Oats	28.5	26.0
Barley	15.1	10.0
Grain sorghums	15.6	11.0
Soybeans	22.4	26.0
Rice	1.6	1.6
Cotton	15.2	18.0
Hay	69.4	73.0
All other	20.0	19.4
Total, 59 crops	324.8	319.0

[5] A general description of this model and the analytical methodology involved in its use is presented in appendix A. Comparisons are also made in the appendix between these projections and those made by U. S. Department of Agriculture technicians, reported in S. Doc. 77, 86th Cong., 2d sess., utilizing slightly different assumptions and methods.

Table 11.3. Yield per harvested acre, 1959, and projections for 1965 with price supports and production limitations removed

Crops	1959	Projected 1965
Wheat----------bushels-	21.3	25.0
Corn----------do---	51.5	53.0
Oats----------do---	37.7	39.0
Barley----------do---	27.9	32.0
Grain sorghums----------do---	37.2	35.0
Soybeans----------do---	24.0	24.0
Rice----------pounds--	3,349.0	3,570.0
Cotton----------do---	465.0	500.0
Hay----------tons--	1.6	1.7

Table 11.4. Production, 1959, and projections for 1965 with price supports and production limitations removed

(In millions)

	1959	Projected 1965
CROPS		
Wheat----------bushels-	1,128.0	1,350
Corn----------do---	4,361.0	4,240
Oats----------do---	1,074.0	1,014
Barley----------do---	420.0	320
Grain sorghums----------do---	579.0	385
Soybeans----------do---	538.0	624
Rice----------hundredweight --	53.1	57.1
Cotton----------bales -	14.7	18.75
Hay----------tons -	112.8	124
LIVESTOCK		
Cattle and calves, slaughter----------pounds	29,546.0	34,149
Hogs, slaughter----------do---	21,442.0	23,827
Sheep and lambs, slaughter----------do---	1,676.0	1,615
All chickens----------do---	7,172.0	8,260
Turkeys----------do---	1,392.0	1,701
Eggs----------dozen--	5,196.0	5,699
Milk----------hundredweight	1,244.0	[1] 1,438

[1] For technical reasons involving use of milk for various purposes, projected production may be somewhat too high.

Table 11.5. Exports from current production projected for 1965 with price supports and production limitations removed [1]

	Commercial	Public Law 480	Total
Wheat----------bushels--	175	275.0	450.0
Feed grains----------tons---	15	0	15.0
Rice----------hundredweight---	19	10.0	29.0
Cotton----------bales--	7	1.5	8.5
Soybean oil----------pounds -	[2] 2,000	[3] 625.0	2,625.0

1 Public Law 480 exports in addition to those listed would be required to reduce surplus stocks now on hand.

2 Includes oil equivalent of soybeans exported.

3 Also 160,000,000 pounds cottonseed oil.

Table 11.6. Prices received by farmers, 1959, and projected for 1965 with price supports and production limitations removed

	1959	1965	Percent decline
Cattle----------hundredweight---	$22.50	$17.08	24
Calves----------do----	27.10	18.39	32
Hogs----------do----	14.20	10.95	23
Sheep and lambs----------do----	17.94	16.78	6
All chickens----------pound---	.15	.14	7
Turkeys----------do----	.24	.19	21
Eggs----------dozen---	.31	.26	16
Milk, wholesale----------hundredweight --	4.16	3.67	12
Corn----------bushel --	1.07	.77	28
Oats----------do----	.62	.41	34
Barley----------do----	.88	.62	30
Grain sorghums----------hundredweight --	1.68	1.21	28
Wheat----------bushel --	1.75	.87	50
Soybeans----------do----	2.02	1.35	33
Rice----------hundredweight --	4.79	3.49	27
Cotton----------pound---	.32	.21	34

Table 11.7. Income and production expenses, 1959, and projected for 1965 with price supports and production limitations removed

	1959	Projected 1965	Percent change
Cash receipts from marketings:	Millions	Millions	
Cattle and calves	$7,893	$7,044	-11
Hogs	2,806	2,504	-11
Sheep and lambs	337	268	-20
All chickens	1,038	1,096	+ 6
Turkeys	329	317	- 4
Eggs	1,489	1,420	- 5
Milk and cream	4,617	4,965	+ 8
Corn	1,508	1,002	-34
Other feed grains	860	381	-56
Wheat	1,986	1,093	-45
Rice	224	195	-13
Cotton lint	2,385	2,008	-16
Cottonseed	218	204	- 6
Soybeans	952	818	-14
All other	6,504	7,542	+16
Total receipts	33,146	30,857	- 7
Other income:			
Government payments	662	662	0
Food and fuel used in the home	1,628	1,063	-35
Rental value of dwellings	2,012	2,012	0
Total other income	4,302	3,737	-13
Total income	37,448	34,594	- 8
Production expenses:			
Purchased feed	4,623	4,403	- 5
Purchased livestock	2,727	2,260	-17
Hired labor	2,929	2,929	0
Real estate taxes and mortgage interest	2,025	2,600	+28
All other	13,855	15,200	+10
Total production expenses	26,159	27,392	+ 5
Realized net income	11,289	7,202	-36

The implications of the decline in farm income projected for commercial agriculture are serious. In spite of the isolation of existing surplus stocks, a conservation reserve of 30 million acres, and continuation of Public Law 480 exports from current production, prices for farm products would decline sharply in 1965 in the absence of programs to balance supplies with market outlets available. Producers financially able to make investments in new output-increasing, cost-reducing technologies would attempt to meet the painful cost-price squeeze in this way. Land and capital investment values generally would shrink. Industries and financial institutions serving farmers in the towns and cities would feel the financial pinch in the rural areas. A prolonged period of severely depressed farm incomes adversely affecting all who deal with farmers appears probable if agriculture's full production potential is utilized in the 1960's.

Programs to prevent excessive farm output or increased government payments appear to be required to prevent further worsening of commercial farmers' incomes in the 1960's. Supply management programs to hold farm output below full capacity are of two types--those which limit inputs of resources, and those which deal directly with market supplies.

No one has seriously proposed placing limitations on development of new technology. The long and uncertain time periods involved in discovering and perfecting production innovations make it impossible to manage market supplies of farm products by varying investments in technological research. In fact, from a practical standpoint, cropland appears to be the only resource input susceptible of direct management by government programs.

Land management programs may be either voluntary or compulsory. They also may be limited to acreages used for specific crops or they may be applied to cropland without reference to specific crop acreages. The tobacco, wheat, cotton, rice, and peanut marketing quota programs are compulsory land management programs applied to specific crops. Producers, by a two-thirds majority, voted to limit production to allotted acreage of these crops. In this way they manage supplies of the products moving to market. Producers who overplant their allotments are subject to heavy taxes on the extra production.

When the only inducement for planting within the allotment is an adjustment payment or the availability of a government price-supporting loan (as in the case of the corn program prior to 1959), it is a voluntary land management program. The present conservation reserve program, with government rental of 28.7 million acres of cropland for three to ten year periods is also a voluntary land management or land retirement program. It is designed to reduce the aggregate volume of farm products marketed.

Supply management programs which deal directly with market supplies also have been operated on a limited scale since the 1930's. They have been applied to fresh fruits and vegetables, tree nuts, and fluid milk in urban markets. Market order or direct market supply management programs, under legislation passed in 1937, among other things may regulate the grade, size, quality, maturity, quantity, and rate of shipment of the product from specified production areas to market. Marketing

orders for specified products are issued by the Secretary of Agriculture under legislative authorization, when requested by a two-thirds majority of the producers of the commodity.

Analyses of alternative policies analyzed in Parts II and III of this study utilize the same basic assumptions as were used in making the price and income projections for 1965 with full utilization of resources and price supports removed. They utilize the same estimates of demand elasticities, livestock feeding rates, yields, and production expense trends. These analyses are presented by competent economists as estimates of the magnitude and cost of alternative programs to achieve specific levels of farm prices and income for a period in the 1960's centering on 1965.