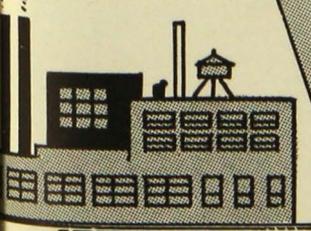


WHAT MAKES FARM PRICES

by
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U. S. DEPARTMENT OF AGRICULTURE

What Makes Farm Prices

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THE MONEY farmers receive for their products is only part of the money spent by the final consumers for these products. Part of the price the consumer pays for farm goods must cover the costs of transportation from the farm to the consumer, processing, storage, wholesaling, and retailing. Marketing and processing are especially important since they now absorb approximately half of the total expenditures by consumers for agricultural products.

Some of the consumers buying these farm products live in the United States, while others live in foreign countries. The largest share of our agricultural products, however, are sold in the domestic market, and in consequence the amount which our farmers receive for their products depends very largely upon the expenditures by domestic consumers for these products. This is especially true at the present time because the war has prevented sales in foreign markets which were formerly available.

What Affects Expenditures?

Many factors influence the expenditures of consumers. Among these are: the prices of the products, the availability and price of substitutes, the demands for funds for other expenditures, and the amount of the consumer's income.

Changes in income are especially important in causing changes in expenditures. A shrinkage of income requires the curtailment of some expenditures, while an increase in income permits greater spending at least in some lines. The majority of the domestic buyers of agricultural products are city clerical and factory workers purchasing food and clothing for themselves and their families. There is no complete measure of the incomes of these groups. Fac-

tory workers are, however, such a large proportion of consumers that we may represent the income of the entire group of domestic consumers by total factory payrolls.

The index of factory payrolls and the index of cash farm income received by farmers from the sale of their products for the years 1929 through 1940 is shown in figure 1. The similarity in fluctuation is marked. In 1932 when factory payrolls were lowest, cash farm income was also lowest. Both were highest in 1929, and as a whole factory payrolls and cash farm incomes have shown similar fluctuations. The dependence of farm income upon the income of the purchasers of its products is thus evident. Increased city worker incomes generally mean larger farm incomes.

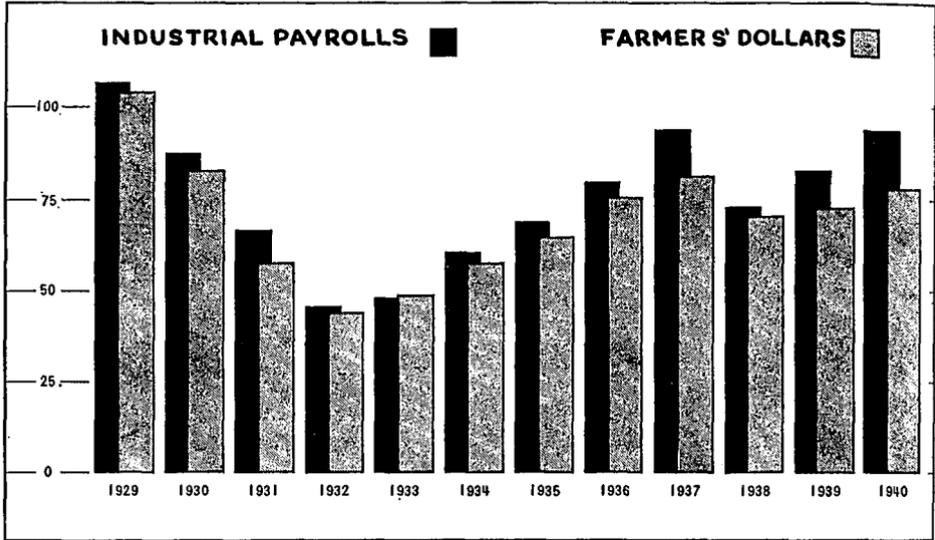


FIG. 1. INDUSTRIAL INCOME AND CASH FARM INCOME FLUCTUATE TOGETHER
Index for Payrolls and Farmers' Dollars Based on 1924-29 as 100.

Consumer Incomes Affect Food Purchases

FOOD is the principal use to which agricultural products are put by consumers. In 1935-36 about 15 billion dollars was spent for food in stores and restaurants in the United States. This was close to one-third of all the expenditures by consumers. Food is the largest single item of expense among the low income groups. Figure 2 shows the total expenditures and food expenditures as estimated by the National Resources Committee for each third of the consumer units in the United States. A consumer unit in this study was a family or individual maintaining separate expenditures.

Expenditures for food are larger in

the high than in the low income groups. The proportion of the total expenditures taken by food, however, is smaller in the high than in the low income groups. While each member of the lowest income group spent less than \$250 a year for food, nevertheless, this accounted for over 40 per cent of the total expenditures of the group. Thus, even though the expenditure per person is only a few cents per day, this small amount is a large part of the total these groups have available to spend. This low average dollar expenditure by the lowest third of the income groups means that their diets are likely to be deficient except where the consumption unit is a single individual or a farmer who is producing a large portion of the family food on his own farm.

The larger expenditures for food by those with higher incomes indicate that there are unsatisfied food wants in the lower income group, and that

these lower income groups would gladly purchase more if they were able to. They also indicate that city consumers are willing to pay more for the same quantities of food as their incomes increase.

A part of this increase in dollar expenditure on food by the higher income groups is due to the purchase of more food, as measured in calories or energy value, and to greater waste. Most of the increase in cost is, however, due to including a greater variety of foods and more expensive foods in terms of energy value in the diet. The greatest increases in consumption are found in fruits, vegetables, dairy products, meats, and eggs.

The consumption of potatoes, bread, and sugar do not vary greatly among the income groups. The extent of certain of these changes in consumption habits is shown in table 1 which compares the consumption of nonfarm, non-relief families in the various income groups to the consumption in the \$1,000-\$1,500 income group.

A rise in consumer incomes is not likely to increase the demand for all food products to the same extent. Products which are consumed in nearly equal quantities on all income levels will probably be influenced little by an increase in incomes. On the other hand the demand for commodities for which the consumption differs greatly between the high and low income levels may be expected to change greatly as income increases.

Incomes Budgeted Carefully

Since the majority of consumers have limited incomes they have to use care in budgeting their income in order to secure as large a satisfaction from their expenditures as possible. The purchase of food is only one of the many possible ways of spending money; clothing, housing, transportation, and many other items are also pressing for attention. Even among foods there are many kinds that may be purchased in larger or smaller quan-

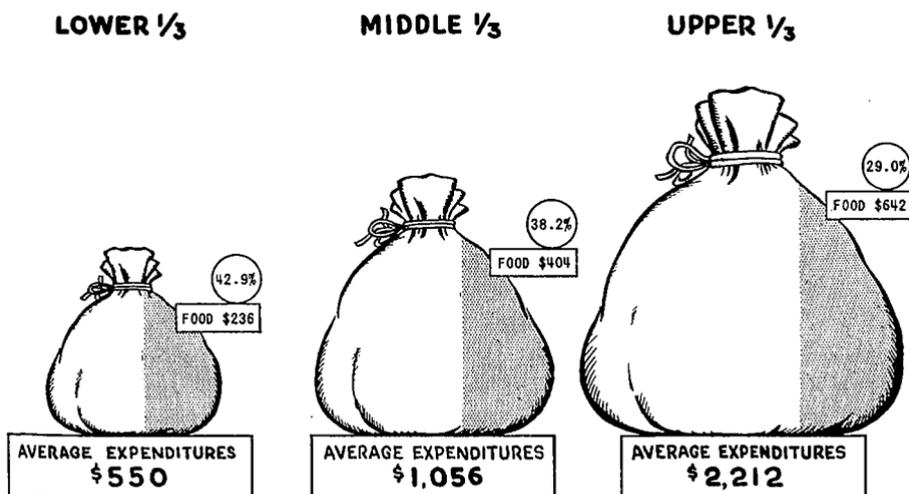


FIG. 2. FOOD EXPENDITURES OF DIFFERENT INCOME GROUPS

Table 1. Consumption of Nonfarm, Nonrelief Families on Various Income Levels in the United States, 1935-1936, in Pounds*
(Purchases by \$1,000-\$1,500 Income Group = 100)

Income Group	Fruits	Meats	Dairy Products	Eggs	Vegetables	Wheat Products	White Potatoes
Under \$500	38	56	43	57	58	94	63
500- 999	73	84	81	88	89	101	96
1,000-1,499	100	100	100	100	100	100	100
1,500-1,999	121	112	113	106	107	99	102
2,000-2,999	146	125	123	112	114	97	102
3,000-4,999	183	149	140	119	122	96	99
5,000 and over	248	187	153	123	131	91	95

* Milo Perkins, *The Challenge of Under Consumption*, United States Department of Agriculture, Mimeograph 1940.

titles. The consumer naturally tries to secure the greatest possible satisfaction from this expenditure in view of his preferences, knowledge, and the prices of products on the market. Ordinarily he will be willing to increase his consumption of a particular product only if the price of that product is lowered. It follows from this that larger supplies of an agricultural product can be forced on the market only at lower prices if the incomes of consumers have remained unchanged.

Changes in Supply Affect Prices Differently

THE INCREASE in the amount of a commodity purchased by consumers following a decline in price varies greatly among commodities. A slight fall in the price of some commodities will greatly increase purchases by consumers, while a large decline in the price of other commodities will increase purchases only slightly. This also means that when the production of some agricultural products increases only a very little, prices will decline greatly, while for other products a

large increase in production will decrease prices only a comparatively small amount.

There are some foods which are relatively low in cost in terms of calorie or energy values. These are a comparatively small part of the total food budget and are habitually used by nearly all income groups. Examples are bread, potatoes, and sugar. Many families are using all they desire of these products. Consequently, there would be only a small increase in purchases of these products even at a considerably lower price. This means that small changes in the supplies of these products will result in considerable opposite changes in their prices. Using a technical term to describe the above situation we commonly say that the commodity has an **inelastic demand**.

In contrast to the commodities just described, there are others for which substitutions may be readily made in the diet and which are expensive enough to be excluded from the budgets of many consumers. The amounts of such commodities purchased by consumers often increase greatly with a decline in price. An increase or decrease in the production of such commodities does not result in a change in price of the same proportion, but a much smaller change. Examples are to be found among fruits, vegetables, and meats. Commodities with this

sort of a relationship between prices and quantities are said to have **elastic demands**.

Effect on Total Income

The farmers as a group are not only interested in the price of the commodity but even more in the total income they receive from the sale of the commodity. This is the product of the price at which the commodity sells times the quantity sold. It is for this reason that the elasticity of demand for the product is important. If a larger quantity sold depresses the price only slightly, as is the case when the demand is elastic, then the total value will be greater for a large than for a small quantity. A large crop or output will have a greater value than a small crop or output.

On the other hand if the demand is inelastic, then a small increase in quantity will depress the price a great deal before consumers will expand their purchases sufficiently to absorb this increase in quantity. Under these circumstances the total value of this larger output (the product of a much lower price times a slightly larger quantity) is less than for a smaller quantity. A large crop or output in these circumstances has a smaller value than a small crop or output.

In all cases an increase in the quantity marketed lowers price, but if the demand is elastic the increased quantity has a greater total value than a smaller quantity, while if the demand is inelastic the increased quantity has a smaller value.

Demand and Production Control

These relationships have an important bearing on the problem of production restriction such as was instituted under the AAA. If the particular crop

or product in question has an inelastic consumer demand, then the smaller output will increase the total expenditures of consumers for that product and probably some of this increased expenditure will reach the farmers and increase their income. There should also be some reduction in production costs, due to the smaller quantity. This reduction in costs would also tend to increase the producers' income.

If the consumer demand for the commodity is elastic the situation is entirely different. The reduced quantities now result in smaller total expenditures by consumers for the product. Under such circumstances if the farmer's net income is to be increased it will be necessary for his production costs to decline more rapidly than the decrease in consumer expenditures for the commodity.

It is thus clear that a reduction in the production of a particular agricultural commodity will not necessarily increase the farmer's income from that product. It will probably do so if the consumer demand is inelastic but will probably not do so if the demand is elastic.

Farm Production...

Steady Over Many Years

THE TOTAL VOLUME of agricultural production in the United States does not change greatly over the period of a few years. Farmers, of course, have large or small quantities of particular products to dispose of in a certain year because of fluctuations due to the weather and their attempts to shift into lines of production promising to be more profitable. Total

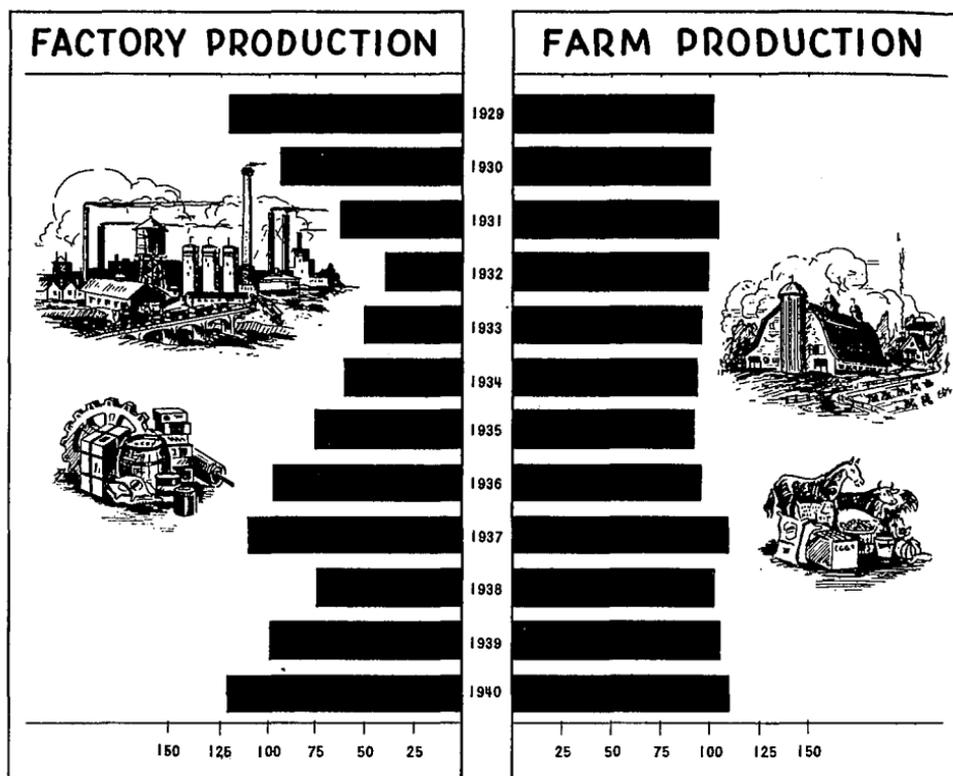


FIG. 3. AGRICULTURAL PRODUCTION CHANGES LITTLE FROM YEAR TO YEAR, BUT INDUSTRIAL PRODUCTION FLUCTUATES GREATLY

agricultural production, however, does not change greatly from one year to another. When demand is unfavorable, farmers continue to produce at the old rate and take the full effect of the decline in demand in a fall in prices. Just the opposite is true of industrial production. Figure 3 shows how differently agriculture and industry reacted during the last depression:

Reduction Difficult on Farm

The reasons for the difference in the reaction to a decrease in demand by agriculture and industry are fairly clear. Agriculture is carried on by many small units and reduction in output by

any individual farmer would have no influence on price. The great number of units makes organization for reduction difficult.

Industrial production on the contrary often is controlled by large organizations which, by curtailing production or agreeing among themselves to curtail production, may sustain prices.

There is a difference also in the savings in money expenses in the two fields following a reduction in output. The farmer uses mostly his own and family labor. Many of the raw materials, such as feed and fertilizer, are farm produced. There would thus be small gains compared to industry from curtailment.

Industry, on the other hand, may discharge labor, thus saving wage expense, and may purchase less raw material, thus saving considerable money by smaller output. The result is that agriculture finds it desirable to continue production at full output, while industry finds it desirable to curtail output as demand lessens.

These differences in production policies following changes in demand are responsible for considerable variation in the relative levels of agricultural and nonagricultural prices. At times agricultural prices are high relative to the prices of nonagricultural products, and at times agricultural prices are low compared to the prices of nonagricultural products. The indexes of these two groups of prices are shown in figure 4 for the years 1926 to 1940.

Agricultural prices were relatively high in 1928 and 1929 and relatively low from 1931 to 1934. In depressions agricultural prices tend to fall further than the prices of nonagricultural products as a group, and in prosperity there is a tendency for agricultural prices to rise more than the prices of other products. This is because the curtailment of output during the depression helps to sustain nonagricultural prices, while the maintenance of agricultural output at the old level forces a full decline in the prices of agricultural products. On the contrary, during a period of recovery the increase in industrial production tends to curtail the increase in nonagricultural prices while the continuation of agricultural output at the old level results in a full rise in agricultural prices.

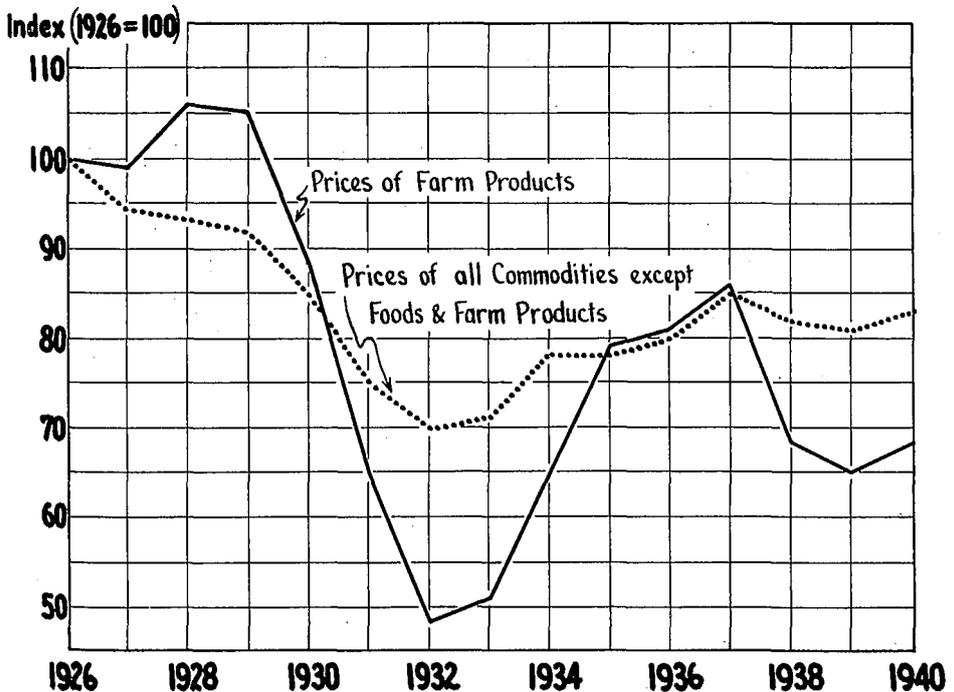


FIG. 4. FARM PRICES FLUCTUATE MORE THAN OTHER PRICES

Effect of War.....

Usually Is Rising Prices

THE ENTRY of a country in a war is likely to increase the amounts available for expenditures on commodities and consequently to cause a rise in prices. This result can be expected because the ordinary purchasing power in the hands of consumers is increased by government spending for war materials.

It might be possible for the government to raise its funds by heavy taxation, thus simply shifting funds usually available for expenditure by consumers to government spending for munitions, planes, etc. In this case there would be no increase in total expenditures, and prices would not be likely to rise.

War taxes which fall mainly on those outside the low income group would still leave the latter with more purchasing power. Ordinarily, however, governments for various reasons do not find it desirable to levy such heavy taxes and secure their funds by borrowing or even by expansion of the amount of currency. The latter methods would probably result in an increase in prices.

The general level of prices for different years is shown for the United States in figure 5. The curve in the early years is an average of the prices of about 80 commodities while the curve for the later period is an average of prices of over 700 commodities. The two periods in which prices rose greatly and subsequently fell greatly during a short time were during the Civil War and the World War.

It is also apparent that not all important wars have resulted in great price rises in the United States, for example: the Mexican War, 1843-48, the Crimean War, 1853-56, the Franco-Prussian War, 1870-71, the Spanish-American War, 1898, and the Russian-Japanese War, 1904-05. A great deal appears to depend upon the length of the war and the extent to which demand is increased.

The difficulty that arises when prices change as greatly as in the large rises and falls accompanying the War of 1812, the Civil War, and the World War, is that all prices do not change at once or by the same amount. Any general change in the average of prices shifts purchasing power among groups in the community, resulting in benefits to some and hardships to others.

The most marked changes are those in the relationship between debtors and creditors. The debtor gains on rising prices. The goods he has to sell are higher in price while his debt remains the same in dollars as it was before. Thus if wheat is 50 cents a bushel, it would require the sale of 2,000 bushels of wheat for a farmer to be able to pay a debt of \$1,000, whereas if wheat were \$1.00 per bushel he could secure funds to meet that obligation by selling 1,000 bushels of wheat.

During a period of falling prices creditors gain. The amount borrowers must now repay to the lenders will enable them to buy more than at the time the loan was made. Those who are on fixed incomes are in the same situation as the creditor class; in fact most of those who have fixed incomes secure them by loaning money to others or by the purchase of bonds or annuities which is essentially the same as loaning money to the corporation or business. There are, moreover, many salaried people whose salaries do not

change for considerable periods of time, and these people will not be able to buy as many goods as before the rise in prices. Debtors naturally prefer to have prices rise, while creditors and those with permanent posts at fixed salaries prefer to have prices fall.

The business man generally gains when prices rise. The business man has usually borrowed money to run his enterprise, and many of the payments he must make for things such as rent, wages, and interest do not increase as rapidly as the prices of the goods he has to sell. Profit margins thus tend to widen and business activity is stimulated.

The situation of the city wage earners is somewhat more complex. The man who keeps his job gains on falling prices and loses on rising prices. This is because his wages usually lag behind the changes in prices. If, however, the price rise stimulates business activity,

more people may be employed. Thus, while wage rates may lag, the increase in employment may result in a larger total purchasing power for the laboring class. The reverse is likely to occur with a decline in prices. The gain from reemployment is likely to be largest in the early stages of the price increase when many of those previously without work secure jobs. The losses from the wage lag are greater for the group in the later stages of the advance when nearly everyone capable of work has been employed.

Agriculture is especially benefited by a rise in prices and injured by a decline. Many farmers are heavily in debt, and the burden of this debt will change with each change in prices. Moreover, there is a strong tendency for agricultural prices to fluctuate more than nonagricultural prices, falling further when prices in general are declining and then rising more rapidly

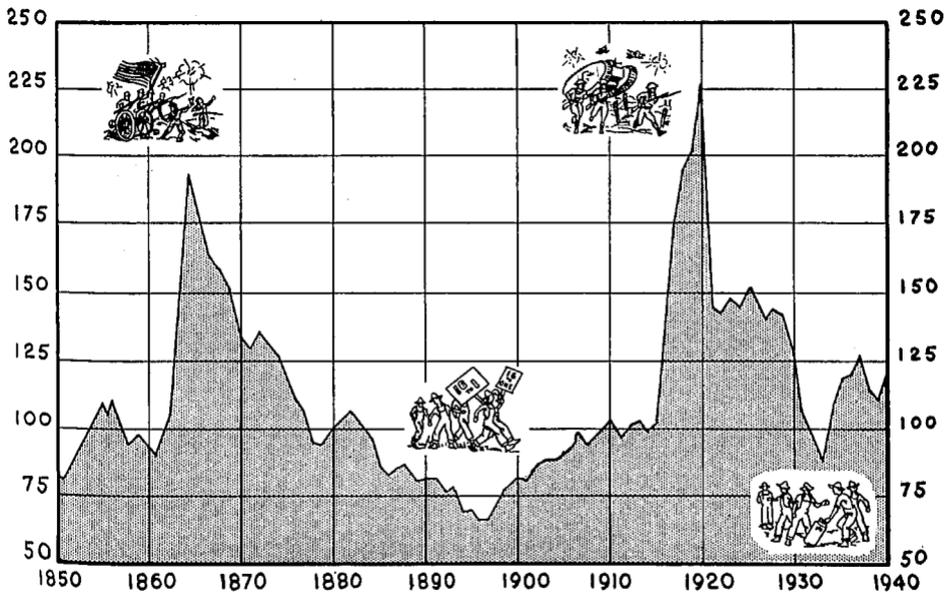


FIG. 5. GENERAL LEVEL OF PRICES

when prices in general are increasing.

Any movement in the general price level thus affects each group in the community and changes their position relative to that of other groups either favorably or unfavorably. It is not surprising then that movements in the general price level are associated with unrest in particular groups and sometimes even with class disturbances. There is usually labor unrest when prices are rising. City people are dissatisfied, and there is a great deal of talk about the high cost of living. There is agricultural unrest when prices are falling and much talk about the unjust debt situation.

Examining our graph of the general level of prices in figure 5 we see that the period from 1870 to 1896 was one of a downward trend in prices. The farmers were greatly handicapped in this period. They organized the Greenback party and put candidates into the field for President and Congress from 1876 to 1884. Silver was demonetized in 1873, and during the years immediately following this action was assumed to be one of the causes of the decline in prices. Farmers referred to the "Crime of 1873," pressed for silver purchase laws, and later for free coinage of silver at a ratio of 16 to 1 with gold. The drive culminated in 1896 in the presidential campaign of William Jennings Bryan and his famous Cross-of-Gold speech.

From 1896 to 1920 prices rose. Ag-

itation from agriculture for higher prices largely ceased. Labor strengthened its unions, the American Federation of Labor which had less than ½ million members in 1897 had increased to over 5 million by 1920. Toward the close of the period and during the war there was much talk of high prices and the high cost of living. The period since the World War presents a similar situation. The price declines from 1920 to 1933 were periods of great agricultural distress and witnessed the experimentation with many agricultural relief plans. In the 1920's, at least, labor was well off. The rise in prices since 1933 has lessened the pressure of agricultural debt, and agriculture is better satisfied but industrial unrest has grown and the membership of labor unions has increased greatly.

Conclusion

There can be no gain to the country from a great change in the general level of prices. All that results is a shift in the general relationships among the various classes in the community with great dissatisfaction in the groups whose situation has been made worse. The danger is that the gains to the farmers from such a rise are likely to be more than offset by losses in the probable subsequent decline. The only way in which we can become better off as a group is by producing a larger total quantity of goods.

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Cooperative Extension Work in Agriculture and Home Economics, University of Minnesota, Agricultural Extension Division and United States Department of Agriculture Cooperating, Paul E. Miller, Director. Published in furtherance of Agricultural Extension Acts of May 8 and June 30, 1914.

10M-6-41