Agriculture and Defence

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STUDENTS of price cycle movements are familiar with the claim that, when a general rise in prices occurs, the prices of farm products rise sooner and farther than prices of other goods or of goods and services in general. The usual explanation for this difference in price behaviour is somewhat as follows: It begins with the assumption that the price rise is due to an increasingly effective demand. It is further assumed that this improvement in demand is not confined to any specific product or products but applies generally throughout the economy. Given this general improvement in demand the speed with which and extent to which the price of any particular commodity rises will depend upon how promptly its production can be increased. The general situation in the case of manufactured goods is that their production can be stepped up almost immediately and can be made continuous. This is possible not merely because factories have been operating at less than capacity prior to the change in demand, but mainly because production involves the processing of inanimate materials which are already in existence. In the case of farm products, on the other hand, it is often not possible to increase supply promptly. Plants and animals cannot be produced without passing through naturally specified growth periods. As a result the lag between the initial price rise and the increase in supply induced by it may be considerable. This means that the price rise, which is continuous, may become quite pronounced before additional supplies begin to offset it.

While the foregoing has undoubtedly been the normal way in which price changes have occurred during the upward phase of the business cycle, experience indicates that the rate at which the several kinds of prices rise is likely to vary considerably depending upon the circumstances responsible for the improvement in demand as well as any peculiarities relating to supply. It is well known, for example, that, in the general price rise following the outbreak of war in 1939, farm product prices remained relatively unchanged for quite a long time whereas prices of many manufactured articles climbed fairly promptly and appreciably. The general result was that, during the first year or two of the war, the economic position of the farmer was actually worsened because the relationship between his selling and buying prices became steadily more unfavorable. This course of events was the result of a special set of conditions. At the start of the war agricultural supplies existed in surplus amounts with the result that farm product prices were very low relative to the prices of the things farmers had to buy. This situation was rendered progressively worse inasmuch as the earlier wartime demand was primarily for such things as planes, tanks, trucks and munitions rather than for food. It was not until about the middle of 1941 that the special demand for food incident to the war caused agricultural surpluses to be replaced by rapidly rising farm product prices. In this instance the extent and order of price changes followed a pattern dictated by the special supply and demand situation which happened to exist in respect to the different types of commodities.

Even though prices which farmers paid rose more than those which they received during the first two war years, this situation was soon to be reversed. By the end of 1942 the post-1939 rise in selling prices had actually surpassed the corresponding rise in buying prices. From then until the end of 1946 selling prices continued to rise faster than buying prices. Since that time, however, the opposite has been true. Buying prices have risen faster than selling prices, and this has been especially true during the past year. Whereas the index of farm selling prices actually showed a two-point drop in 1950 compared with the previous year, the farm buying price index continued to rise from an average of 202 in 1949 to 215 in August 1950. While it is true that the total increase in farm selling prices since the start of the war is considerably greater than the corresponding increase in farm cost prices, the more recent narrowing of the margin between prices and costs means a reduction in net farm income. It should be emphasized that these price relationships apply to Canadian farmers as a whole. The price index for field products has fallen steadily and quite appreciably ever since 1948 whereas the animal product index has continued to climb during the same period. This means that at the present time the price-cost relationships of producers of field crops are far more unfavourable than those of producers of animal products.

The above factual information may seem irrelevant to the present and prospective situation since it relates to a period that is now past and gone. There are, however, two or three reasons why it seems in order to introduce it here. The topic under discussion is "Where does the farmer stand in a period of rising prices?" The above brief summary shows where his selling prices stood in relation to his buying prices at different times during the last eleven years. These years have represented not only a period of rising prices but one in which both selling and buying prices have risen by considerably more than 100 per cent. This particular record indicates that a total rise in selling prices can exceed a total rise in buying prices for at least as much as eleven years. It also shows that either type of price may rise more rapidly than the other during certain parts of a longer period but that neither type is likely to rise more rapidly than the other during anything like an eleven-year period. A further fact which seems to us all important is that the behaviour of prices during the past eleven years was probably quite unique being simply the reflection of very special supply and demand conditions. The course which the various prices followed was due partly to the particular supply conditions prevailing when the price rise began, partly to the particular demands resulting from the war situation, partly to the character and timing of price control policies, partly to the special post-war recovery requirements and policies incident thereto, and probably several other factors. This all indicates that the price behaviour pattern is likely to vary as widely as the set of influences which give rise to it. It would therefore appear that what happened to price relationships during the past eleven years may bear little resemblance to what may occur from this time forward.

II

HAVING surveyed the course of development during more than a decade of rising prices, we may consider briefly the present and prospective situation. It seems important to begin by reminding ourselves that we are now at the end of an eleven-year period during which price levels have been moving steadily upward. While it may well be that prices will continue to climb, the very fact that they have already risen so much and over so long a period seems bound to influence future developments. For one thing farmers, generally speaking, are not under the same compunction to expand production in response to a given economic stimulus as they were some years ago. Farm indebtedness has been greatly reduced and in many cases entirely eliminated. The greatly needed repairs to buildings and equipment have been made and it is no longer necessary to live off capital rather than income. In addition many of the longed-for improvements in living standards have been realized. Summarily speaking, the economic position of farm people has greatly improved and their sense of security has increased tremendously. All these facts suggest that the need for taking prompt and full advantage of an improved relationship between costs and selling prices has been getting steadily less. One result of this may be that farmers will be more reluctant than heretofore to undertake production of anything involving more labour. They may be less inclined for example, to shift from beef or wheat production to the dairy or hog enterprises, or there may be less inclination to make greater productive effort of any kind.

While recent improvement in the farmer's economic position may have reduced the need which he feels for still further improvement, there may be forces working in the opposite direction. For one thing there can be little doubt that Canadian agriculture has become much more commercialized during the last few years. This is likely to mean greater need for scrutinizing profit-making possibilities as well as a strengthening of the profit-making motive. Both of these should encourage production response in the event of more favourable price-cost relationships.

There is, however, another result of the price increases of recent years which seems certain to exert a pronounced effect on both production and the general economic position of the farmer. We are referring to the very decided improvement that has been made to the farm production plant. The net result of the repairs and additions to buildings, the replacement and modernizing of mechanical equipment, the rebuilding of fences, and the increased purchase of artificial fertilizers is that the potentialities of Canada's farms as producing units have been greatly expanded. There are, in fact, other recent developments which should work in the same direction. The fact that beef production has become increasingly more profitable than dairying in the last couple of years has resulted in a large number of the lower-producing cows in dairy herds being sold for beef. In the same way the gradual elimination of the British market for Canadian eggs has caused a speeding up in the disposal of hens with low egg-producing records and the selection of better laying strains. The general effect of this herd and flock culling is that farmers are now left with stock capable of producing more milk or eggs for a given input of feed and labour.

While there seems general agreement that the above-mentioned improvements should add greatly to productive possibilities, it is generally recognized that, so far, they have not been accompanied by any general production expansion. On the contary during the last four years when our farms were being put in a better position to produce, the national volume of production was actually declining somewhat, according to the physical volume of production indexes published by the Dominion Bureau of Statistics. Though these production declines have not been very pronounced, the fact of their occurrence serves as a reminder that production of farm products depends upon other things besides the quantity and quality of land, buildings, equipment and livestock which combine to make up what is ordinarily referred to as the farm production plant. The other things include the type and amount of labour used, the kind of weather prevailing, the existing level of agricultural technology and, finally, the extent to which productive effort seems economically worth while. It has been estimated that the total volume of Canada's agricultural production for the decade 1940-49 was 25 per cent greater than that of the preceding ten-year period. This pronounced increase was the result of much better weather conditions, a rapid speeding up of the tempo of agricultural mechanization following the outbreak of the war, a definite improvement in scientific methods together with their more widespread use, the special effort made merely in order that the war might be won, and an attempt to take advantage of the greatly improved price-cost relations. The latter had somewhat the same effect on production as higher piece rates in industry are supposed to have. It is important to note that the production expansion took place without the use of additional land and in spite of the fact that half a million of the most able-bodied farm workers left the ranks of agriculture during the war period alone and that the agricultural labour force declined by eight percent between 1946 and 1949.

III

HOW far this background of production experience can serve as a guide to future production possibilities is rather difficult to say. For one thing there is the great uncertainty about the weather and this is probably the most important of the many determining factors. In the second place, in view of the recent extensive improvements in the production plant, there would seem relatively limited possibility of stepping up production through extending this improvement process still further. On the other hand the fact that the plant is now modernized and in good repair should mean that productive capacity has been very considerably increased. Furthermore there seems little doubt that this capacity is far from being fully used at present. Whether and when the future relation between farm selling and buying prices will be more or less favourable to production expansion will depend on the various supply and demand fluctuations. For the past year or more, the relation has been getting a bit less favourable and, in the opinion of some authorities, this trend is likely to continue. However, the continued rise of livestock prices plus the rather pronounced increase of feed grain prices in recent weeks is at present acting as an offset to the cost price increases.

In addition to the amount of inducement that may be provided by the relationship between selling and buying prices, there is the important matter of the degree of influence which a given inducement will exert on productive effort. There would seem good reason to doubt whether a given inducement will result in nearly as much extra effort in 1951 and succeeding years as in the 1940's. To express such a doubt is but to rely on the well-known principle of diminishing utility. Since much progress has already been made in satisfying farmers' wants, further progress must be concerned with less urgent wants and therefore yield less additional satisfaction. Apart from the operation of this principle, however, there is the effect on productive effort of the large drop in the purchasing power of the dollar. What the net influence of this may be is hard to predict since the reaction is apt to vary as between producers. To the extent that a certain minimum of purchasing power is needed, the lessened buying power of the dollar should act as a special stimulus to production. It will take more units of product to provide the purchasing power as the cents or dollars making up the profit margin buy less of other things. On the other hand production that is undertaken only because of the prospect of making a profit will tend to be discouraged. The opportunity of making a profit of a given number of dollars will not seem so inviting as before the buying power of the dollar declined.

In connection with the productive effort that may be forthcoming, it is well to remember, as pointed out above, that such effort can take place in response to something other than a straight monetary inducement. No one will deny that a significant part of the effort put forth during the war years was the result of a desire to win the war and nothing else. Whether the present preparedness programme will appear equally urgent and elicit a similar response may perhaps be doubted.

One factor which at present appears likely to have a limiting effect on farm production is scarcity of labour. Because of the general state of full employment, the growing intensity of industrial labour demands and the need for recruiting, it seems inevitable that the movement of people out of agriculture will not only continue but probably become intensified. Moreover the necessity of competing with industry for a limited labour supply may well result in distinctly higher farm wage rates. While the percentage of farm labour that is hired has fallen rapidly in recent years and while much substitution of machinery for labour has gone on, large scale farm production still requires a lot of human labour. Besides the quantitative requirements it is to be noted that the necessity of combining with expensive and elaborate machinery plus the increasingly scientific nature of farm work generally is requiring a higher average quality of labour. Whether these labour requirements can be fully met will partly depend, as mentioned in the previous paragraph, on whether farm production is looked upon as crucially important.

IV

ASIDE from the important matter of production possibilities, there is the question of how the economic fortunes of the farmer are likely to be affected during the forthcoming preparedness period. While this is something that is obviously hard to predict for any significant time ahead, there are a few factors which may go far to decide the result and which, consequently, seem worthy of special mention.

First of all we have the fact that most farm products are already in short supply and their prices at high levels. Consideration of the various factors suggests that farm prices will have to rise even higher if present production is to be maintained. On the other hand, despite any stockpiling of food that may take place, no great increase in food requirements is to be expected so long as the period is merely one of preparedness for war rather than one of war itself. Since labour is already fully employed and per capita consumption at a high level, no great expansion of the domestic demand is to be expected other than that resulting from the population growth. Should the demand for farm products expand at only a moderate pace, further increases in farm product prices may be kept within reasonable limits. At this writing, it would appear that, in any further general price rise, farm cost prices might rise more than farm selling prices. The reason for this is a prospective growing scarcity of many of the things farmers have to buy including hired labour. Of course much will depend on the nature and extent of price control regulations. If these continue to take such indirect forms as more stringent credit terms and higher income taxes, the amount of purchasing power which might be available for bidding up the price of goods may be reduced considerably. Unless such purchasing power can be completely drained away in this indirect fashion, one would expect further rises in the general price level. And one would also expect that the price increases would be greatest in connection with those goods which happen to be in shortest supply. The list of such goods seems likely to include many of the things which farmers buy both to produce with and to live on.

Should more direct price and supply controls be resorted to, further additions to price might be prevented. If all prices were frozen at or near existing levels, farmers would be quite favourably situated. Continuance of their presently-existing price-cost relationships should permit profitable operations. In the absence of a general price freezing policy the farmers' price-cost relationships may well become somewhat less favourable. It is because of this possibility that the timing of any price-freezing programme would be a matter of very real concern to farmers.

When speaking of farmers' price-cost relationships it is well to remember that a farmer's unit cost of production is determined not only by the price which he pays for the various production factors but also, and to a considerable extent, by the number of units of product turned out. This is a way of saying that in modern farming a large part of total cost is of the fixed variety. There can be no doubt that part of the improvement in the economic position of farmers from 1940 on was due to a drop in the overhead cost per unit. This resulted from dividing a substantially unchanged total overhead by a greatly increased number of units produced. Inasmuch as the present farm production plant is probably operating at much less than capacity, any further expansion of production should result in further reduction in unit overhead cost. In making any allowance for such cost reductions, however, there is another rather important recent development that should be kept in mind. We refer to the fact that whereas the major cash outlays made up less than half the total farm costs before 1939 they now account for well over 60 percent of the total. This is simply a way of saying that the opportunity of reducing total cost per unit through operating at fuller capacity is considerably less now than formerly. While one might think that the recent increased mechanization would have increased the capital investment and hence the percentage of total cost represented by overhead, this has been offset considerably for farmers as a class by the large-scale reduction in mortgage indebtedness. On the other hand, operating cash costs have gone up because of the cost of operating and maintaining the new types of machinery; because of the increased use of fertilizers and of spray materials for controlling weeds, insects and other pests; and because of the tendency to use more purchased as distinct from home-grown feed. This fact that operating costs now make up a larger percentage of the total may make farmers somewhat more hesitant about maintaining or expanding production in the event of a price decline. In the past when farm prices fell farmers did their best to offset the price reduction by an expansion of production and sales. This seemed good economics for the reason that the extra cash outlay required to turn out an extra unit of product was relatively small. So long as it was less than the reduced selling price of the product it paid to keep on expanding production.

V

We come now to a final factor which may have considerable influence in determining the place of the farmer in a period of rising prices. The very suggestion that prices may rise implies that they are free to move. While most farm product prices are characterized by flexibility at present there are a few exceptions and one very important one. Canada's wheat producers, by virtue of the international wheat agreement, have bound themselves to deliver over 200 million bushels of wheat per year at not more than $1.80 per bushel until the crop year ending July 31, 1953. This means, of course, that once the $1.80 figure has been reached, they will be unable to get the benefit of any further increases that might result from the normal operation of market forces. This agreement was made primarily because producers anticipated that prices would fall rather than rise. There are other products, also, the prices of which are prevented from rising in a somewhat similar way. Prices of milk for the whole milk and condensed milk trade are arranged on a contract price basis which means that they cannot be changed except occasionally. Prices of certain canning crops such as peas, tomatoes, and sweet corn are fixed at one price for the season and in advance of production. The same applies to the price for sugar beets. In these cases producers cannot hope to secure the benefit of any price rise that might have occurred during the period of the contract or between the fixing of the price and the time the products are ready for sale. As for other products such as bacon, beef, cheese and eggs, they are no longer subject to fixed or contract prices. While they may still have price floors they are now without ceilings.

In the case of all fixed-priced products other than wheat the most that can be said is that their prices may lag somewhat behind other prices but in no case for longer than the contract term. The situation with respect to wheat is obviously quite different and much more serious. It is serious because of the number of producers, amount of product and length of period involved. While a relatively low fixed wheat price might result in a shift to other types of production, there are large areas where no such shifting is possible. Apart from this there is the awkward fact that any serious contraction in wheat production would make it impossible to supply the export quota stipulated in the wheat agreement.