

AGRICULTURE IN A GROWTH ECONOMY

Remarks by Chas. N. Shepardson
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of the
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It has been my privilege on two previous occasions to discuss with this group some phases of agricultural credit and national credit policy. Today, in the absence of an assigned topic, I have chosen to discuss an even more basic topic -- economic growth and agriculture's contribution to it.

A year ago "Growth" was a topic of frequent discussion in the election campaign, stimulated largely by the recession and unemployment then extant. Since then we have seen a marked upsurge in economic activity. Gross national product, industrial production, and personal disposable income are all at new high levels. On the other hand, while employment has improved, unemployment still remains high and there is still a significant amount of idle plant capacity. In light of this situation and our constantly increasing population, and notwithstanding our increasing preoccupation with international tensions, economic growth continues to be a problem of major concern to all of us.

Let us look, then, at some of the elements in this problem. First, we need to define the type of growth that we have in mind. There is what I would refer to as lateral or biological growth due solely to growth in population. Then there is the vertical or economic growth brought about primarily by increased productivity, which should

result in an increased per capita level of production and consumption or, in other words, a higher standard of living. It is the problem of economic growth or increased productivity and the allocation of the fruits of productivity that I wish to discuss today.

First, we should understand that increased productivity is largely the result of the substitution of capital for human labor. This is true whether we think of the investment in mechanical power as a substitute for manpower or in the development of new methods and materials which result primarily from our investment in education and research. This means that there must be a continuing accumulation and investment of capital. Since capital is derived largely from savings, there must be confidence in the future value of those savings and a sufficient return on them to provide an incentive for saving and investment for future income. Hence, capital is a legitimate claimant on some of the fruits of productivity.

Advancing technology usually involves higher skills and more training on the part of labor, either on the original job or in the job of developing and producing the new tools of production or the new goods and services brought about by reallocation of released resources. Hence, labor, too, is a legitimate claimant. If we are to be realistic, however, we must remember that net gain in productivity should be measured in terms of output per unit of total input or, in other words, the saving in labor input less the increase in capital input.

We should also remember that our rate of growth is dependent upon the share of this increased productivity that is passed on to the whole economy. This may be in terms of improved quality at a constant

price, through lower prices for the same quality, or both. In any case, the goods or services concerned must be brought within the buying power of a broader segment of consumers.

On the other hand, if all gains in productivity were reflected in terms of lower costs to the consumer, there would be no incentive to capital to hazard the risks of a new venture. Neither would there be inducement to labor to meet the needs for new skills or to accept the changes involved in the reallocation of labor resources. Here, let me emphasize that all growth involves change, that most of us have an ingrained resistance to change, that change often is uncomfortable or even painful, at least at the moment. Rate of growth, therefore, is necessarily limited by the degree of discomfort that the economy is able or willing to accept as a result of the changes incident thereto.

To utilize increased productivity, we must either increase consumption of the product affected or divert some of the excess resources of capital and labor to other unfilled uses. Any effort to resist the reallocation of surplus resources tends to offset the benefits of increased productivity and thereby retard our potential growth. This is true whether it results from managed prices and production quotas by big industry, featherbedding by labor or management, or crop acreage allotments by government.

And now let us look at the place of agriculture in this growth picture. Let me remind you, first, that agriculture, the production of food and, to a lesser degree, fiber, is the one indispensable industry in our economy. There are many present day conveniences that we have come to consider as necessities but mankind existed a long time without

them. In fact, many people in some parts of the world still do and, uncomfortable as it might be, I expect we could do it, too, if necessary. But we have never learned to live without food. We always have and I am sure we always will devote whatever proportion of our resources, human and otherwise, that may be necessary to the production of food. It is therefore self-evident that the growth in our economy, which has given us perhaps the highest standard of living in the world, has been made possible by the growth or increased productivity in agriculture, which has released the manpower essential to the development of other industries.

One hundred years ago one farm worker produced enough food and fiber for himself and three and one-half others. Fifty years ago that had increased to himself and six others; ten years ago to himself and 13.5 others; and last year to himself and more than twenty-five others. In the last fifty years farm population has been reduced from 32.1 million, or 34.7 per cent of the total, to 15.9 million, or 8.7 per cent of the total in 1960, based on the new census definition of a farm. Even this small fraction includes a large number of part-time farmers who receive varying but significant portions of their income from off-farm jobs.

This decrease in farm population has resulted in a corresponding decrease in number and increase in size of farms. For example, in 1949 we had 5.4 million farms, of which 3.3 million had gross sales of less than \$2500. In 1959 this had dropped to 3.9 million farms, of which only 1.9 million had sales of less than \$2500. Thus, most of the decrease came in this group of less productive farm units. While the

number with sales in excess of \$2500 remained fairly constant at slightly over 2 million, the number with gross sales in excess of \$10,000 increased from 484,000 to 794,000.

We should remember, however, that the net increase in productivity must measure total inputs against total output. While the output per manhour of farm labor increased, between 1940 and 1960, from an index figure of 67 to 195 (using 1947-49 as 100), the total increase in output per unit of input or net increase in productivity only rose from an index figure of 85 to 126. I mention this not to minimize the more efficient use of labor but to call attention to the fact that it was only achieved at some offsetting cost due to the increase in capital inputs, such as the increases from 58 to 142 in power and machinery input and from 48 to 192 in fertilizer input.

In this connection, it is interesting to look at the change in land input. At times we hear expressions of alarm at the constant urban expansion and the resulting encroachment of cities on productive farm land. It is true that in recent years approximately 1.5 million acres a year have been absorbed in special uses, such as urban areas, highways, reservoirs and parks, including about 375,000 acres of crop land and another 225,000 acres of pasture land. In spite of this, additions through irrigation, drainage and clearing have offset the loss so that the total land available to agriculture has remained fairly constant since 1920 while increases in land productivity have met our growing need. Furthermore, after deducting some present cropland ill-adapted for raising crops, we still have a net of approximately 170 million acres that could be used if needed. This would provide, roughly, a 50 per cent

increase over present cropland, which is already about 5 per cent in excess of current or prospective needs for the next few years.

What, then, has been the net effect of this terrific increase in agricultural productivity? First, it has resulted in one of the best-fed nations in the world -- and at lower real costs. For example, omitting some of the prepared foods with their built-in maid service costs, basic foods, such as bread, meat, and eggs, cost 25 to 50 per cent less in terms of labor based on current retail prices and average factory wages than they did in 1940. Second, it has permitted more constructive use and thus extended the potential of our land resources. And, third, it has released and for some time to come will continue to release manpower resources to other needs of our economy. Here, I should remind you that, unless the manpower so released is used constructively, it only adds to the problem of unemployment.

What are the alternative uses for the manpower released through these gains in productivity? One is increased leisure time for educational or recreational and other non-productive pursuits, such as we have witnessed as a result of the reduction from the 70 to 72-hour work week of fifty years ago to the present 40-hour week and the increased vacation time. Certainly, this has been one of the big gains in our way of life, even on the farm. How much more leisure time we need depends on our ability to develop constructive use of it since, as the old saying goes, "Idle hands are the tools of the Devil."

Second, the manpower thus released may be used for increased production of existing goods or services. This is constructive use only to the extent that the increased production can be utilized through

increased consumption. Here we encounter two limiting factors, one physical and the other economic. For example, the demand for food is limited by the capacity of the human stomach. Once that capacity is reached, we are not interested in more food regardless of its price or availability. That is our situation in this country where we have more ill health from overeating than from hunger. There is certainly room for improvement in the quality of diet of many people but we are more apt to decrease rather than increase the per capita amount of food consumed. While lower food costs do have an effect on the choice and quality of diet, they have little effect on total per capita food consumption. Thus, the opportunity for increase in total food production is limited to the needs of a growing population except for the fact that lower prices would doubtless increase our agricultural exports. The situation with respect to nonfood farm products, such as cotton, is somewhat different. Here the limiting factor affecting increased per capita consumption is essentially an economic one of cost, both of the commodity in question and of competitive substitutes. Reflection of part of the gains in productivity in terms of lower prices would certainly enhance increased consumption. The same holds true for most other goods and services other than food.

Third, released labor may be used in the production of new goods and services not now in existence. In contrast to the demand for food, the demand for new goods and services seems to be limited only by man's imagination and ability to produce them and the buying power to bring them into consumption. This enlargement of consumption, too, is made possible for the greatest number by reflecting a part of

the productivity gain in terms of lower prices to the consumer, thus freeing the amount saved on the original item for purchase of the new one.

As stated earlier, gains in agricultural productivity have made a real contribution to the growth of the economy through lower food costs, released labor, and conservation of our land resources. But what has this done to agriculture? Obviously, its rate of growth, compared with the rest of the economy, has caused serious dislocations. Inequitable sharing of the fruits of productivity in other sectors has often increased the cost to the farmer of his purchased inputs and thus reduced his net increase in productivity. It has also retarded growth in buying power and lessened the incentive for new investment and the creation of new job opportunities, which in turn has lessened the opportunity for relocation of surplus farm labor. Thus, excess land and labor resources have continued to be used in the production of surplus food for which there was no demand. Efforts to lessen the pressure of these surpluses on the market have been costly and largely ineffective as continuing gains in productivity have tended to offset such measures as acreage allotments. We only retard potential growth when we curtail use of productive land merely to lessen the pressure to reallocate our less productive lands to less intensive uses. While the most efficient farmers have been able to offset their rising costs with increased productivity, the relative position of the average farmer, compared with that of the industrial worker, has continued to deteriorate.

If, then, we would have a vigorous, prosperous agriculture continuing to make its contribution to growth in the economy, three things

would seem to be needed. First, we must seek a more equitable allocation of the gains in productivity as between capital, labor, and the consumer in all sectors of our economy. Second, we must increase our efforts to develop off-farm employment opportunities and to train or re-train surplus farm labor for these opportunities. And, third, we must find ways to reallocate more of our less productive cropland to less intensive uses, such as grazing or timber, at the same time permitting fullest use of our most productive land.

I have dwelt at some length on what I consider to be one of the most important factors in connection with the problem of growth either in agriculture or in our economy as a whole, namely, that of a more equitable allocation of the gains in productivity with more of the gain being passed on to the consumer and with a consequent easing of the cost-price push. This is also one of the most important factors in reducing the continuing threat of inflation and its effect on our competitive position in world trade and on our balance of payments problem.

I cannot close, however, without mentioning briefly two other factors involved in this whole problem. One is that of government fiscal policy, including both spending and taxation, with its attendant effect on costs and investment incentives.

The other is that of monetary and credit policy, which is a prime responsibility of the Federal Reserve System. It is our job to provide the amount of credit essential to the financing of a sustainable economic growth. The achievement of further growth is entirely possible but, in my judgment, it is largely dependent on a broader understanding

of the importance of these three factors. Wage-price developments of recent months and the increasing concern about budget deficits and tax policy, all stimulated, I am sure, by an increasing awareness of the balance of payments problem, are encouraging. I am confident that the Federal Reserve System, within the limits of its authority, will continue to strive for a monetary and credit policy conducive to such growth.