Economic Growth and Sectoral Balance

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The Second Five-Year Plan has shifted the emphasis front agriculture to industry. The need for greater attention to industry, and some attention to heavy industry, is beyond question, lilt! industrial development udl mean greater demand for fond and ran materials from an expanding sector of the economy and a growing non-agricultural population,

Under the circumstances agriculture cannot be neglected without exposing the economy to serious shortages, culminating possibly in rising food prices which may lead to general inflation.

If planned investment is to be maintained in the face of inflation or increased imports, it may be necessary to have recourse not only tit price control and rationing, but also to compulsory requisitioning of agricultural

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This, in its turn, may have serious Political repercussions. the professed democratic aims of the Indian Plate ft is against (his background- that- the. Prune Minister s studied strees on *food output routes with a welcome ring.*

THE problem of balanced growth is considered here under' one special aspect, viz., the balance between different. .sectors, rather than different stages, of production in a growing' economy.

It is common knowledge that in a developing economy there occurs a definite redistribution of the economically engaged population among ..the different sectors, so that an increasing proportion of the total labour force finds occupation in manufacture rather than in agriculture, and, at a later stage, in the services sector rather than in the other two. It will be noted that the word "labour force" is used here in a wider sense than, "wage labour", the services sector containing a high proportion of independent or self-employed persons. Incidentally, this shows that beyond a certain point, the proportion of "wage labour'' tends to decline in a growing economy, unlike what Marx thought.

There is a popular belief that the shift from agriculture to manufacture takes place because of the higher efficiency of labour in manufacture relatively to agriculture; and similarly for the shift to services. Reflection suggests that this could hardly be the whole explanation. Let us for simplicity consider a closed, but growing, economy, and concentrate chiefly on the shift from agriculture to manufacture. In such an economy, the shift of the labour force from agriculture to manufacture is only possible because, and to the extent that, demand for manufactured product rises even faster than increased physical productivity of labour in this field, or, to put it the other way round, because average labour productivity in agriculture rises faster than demand for agricultural produce. Thus in an important sense, it is not lack of labour efficiency in agriculture, but rather the increase of such efficiency, which lies at the basis of the shift from agriculture to manufacture, And similarly for the shift from manufacture to services.

Agricultural Revolution—A Precondition to Industrial Revolution

There are important advantages in looking at the problem from this point of view. It serves to emphasise the importance of "revolutionising" agriculture as a. precondition of the "industrial revolution". An inefficient agricultural system is a drag on the industrial revolution.

Let us look into the matter a little more closely, still thinking in terms of a closed, self-sufficient, economy, working within the institutional framework of free markets. In an underdeveloped economy. the increased income resulting from additional investment is likely to be spent in large part on agricultural products, particularly food stuff, This is because the income elasticity of demand for food is likely to be high at a low standard of living. Similarly, the demand for textiles, and. therefore, the derived demand for cotton, will rise sharply. And similarly for certain other agricultural raw materials. On the other hand, the demand for services, which are more or less free of dependence on raw materials, is not likely to rise much at this stage. Now, starting with an industrially backward and agriculturally inefficient economy, with a large technological lag to be made up in both sectors, suppose that substantial investment is made in manufacture, without agriculture being reformed, and with the supplies of agricultural produce consequently inelastic.

Under the assumed conditions, the expansion of manufacture will be limited by two factors. In so far as agricultural produce is an input in relation to manufactured output, agricultural stagnation will act as a brake on industrial expansion, the more so the more difficult it is to find substitutes for agricultural products. There is also the problem of the sale of the manufactured output, arising from the lack of correspondence between the pattern of consumers' demand and the composition of the additional output. The investment in manufacture will create a certain amount of new income, representing the costs of the new manufactured out put.

This new income will create additional demand of which only a part will fall on manufactured articles, the other- part being divided between foodstuff and other non-manufactured commodities. In other words, the increased expenditure on manufactures will be less than their additional cost of production, thus preventing sale at a profitable price; while, on the other hand, the increased expenditure on foodstuff will tend to raise food prices, supply being inelastic in this held. The original investment in manufacture will, therefore, fail to start an expansionist, process. On the other hand, if increased investment in agriculture accompanied the expansion of manufactured output, a part of the increased income originating in the agricultural sector would have been spent on industrial product, and balanced advance might have been possible.

" The rise in agricultural prices relatively to industrial prices may change the relative elasticities of demand in the consumers' market. For the moment, however, we ignore this complication. In any case, inelasticity of supply of agricultural produce will limit industrial expansion by creating shortages of relevant inputs.

Pace of Development 'Conditioned by Agriculture

From this preliminary analysis certain conclusions follow. Distinguishing between successive phases in the development of an economy from an industrially backward 'stage, and concentrating attention chiefly on the characteristics of demand at each stage, it appears that in the early phase of economic development the pace of industrial development is importantly conditioned by the pace of increase in agricultural output, and, more particularly, the production of foodstuff. At a later- stage, the increase in the demand for foodstuff slackens markedly, and the rate of increase of food production as such is no longer an important limiting factor on industrial expansion.

This simple formulation of sectoral balance is subject to certain qualifications which under certain circumstances may become very important, But. before we turn to these qualifications, it is worthwhile insisting that the formulation even in this simple form is important enough. Our initial assumption of a closed economy is not wholly realistic, but. it does riot make our conclusion completely inapplicable to important segments of historical experience.

Experience of Western Europe

In explaining the divergent rates of industrial expansion of different Western countries prior to World War I reference is generally made to their unequal endowments in terms of natural resources, supply of entrepreneurial ability, and other factors *But* not enough attention is always given to the state of agriculture as an important limiting factor. Vet. this is important. And it is probable that some of the other factors, such as the supply of entrepreneurial ability, are imperfectly and distorted-Jy understood when they are divorced from the environment in which a relative stagnation of agriculture forces them to function.

The point may be illustrated by comparing the relative positions of France, on the one hand, and Germany and the United States, on the other hand, before World War I. industrial expansion having been markedly less vigorous in France than in the other two countries. In Germany the yield of wheat per unit of land is estimated to have increased by nearly 60% over the three decades covering the last two of the nineteenth century and the opening one of the twentieth. There was also a small increase in acreage. In the US, total acreage under wheat production nearly trebled in fifty years, there was also an increase in yield per unit of land. In France, on the other hand, neither area under wheat cultivation nor yield per unit of land seems to hav increased much over the last four decades *of* the last century. Thus, in the United States we find a balanced growth of agriculture and industry, while in France agricultural stagnation, itself traceable partly to some institutional factors, seems to have operated both as a cause and an effect of lack of industrial dynamism. The fact that between 1860 and 1900, population grew very much less in France than in Germany or the US. must, indeed, be taken additionally into consideration in order to appreciate the difficulty of the French economy.

Development In India

Reference may also be made in this connection to one of the industrially backward countries, viz.. India, to illustrate how agricultural stagnation may limit the possibilities of industrial expansion. Under British rule, there occurred a remarkable expansion of railways in India, particularly designed to connect the hinterland of raw materials with the ports. India differs in this respect from tropical Africa, for example, where lack of transport is often adduced as one of the principal causes of the very limited development of an exchange economy and, hence, of continued economic stagnation. As an acute observer of the Indian economic scene has observed. "The Indian case affords a dramatic example of the impact of a revolution in transport unaccompanied by a similar revolution in the means and methods of production" H.B. Lamb: "India: A Colonial Setting" *in* Economic Development: Principles and Patterns, ed. Williamson and Buttrick), What British rule signally failed to accomplish, or, rather, what it never tried to accomplish, is to set Indian agriculture on a modern basis. As a result, the few industries set up in India had to function on the basis of a very limited domestic market, or else depend on foreign market.

Role of Foreign Market

This is a convenient point at which to introduce the role of foreign market in economic development. The dependence of a growing economy on foreign market is determined centry its supply *or resources and* the pattern of its growth. Ordinarily, relatively slow growth of agriculture is accompanied either by a slow growth of manufacture, or, lacking a wide home market, rapidly developing manufacturing industries are compelled to seek an outlet for their products in the foreign market. John Stuart Mill criticised Adam Smith for illogically lending his support to the idea of foreign trade as a 'vent for surplus". But Mill's criticism assumes away too many things. It assumes away the possib'lity of a country's industrialising itself more rapidly than what is strictly permitted by its current or possible rate of agricultural expansion, through dependence on foreign market for sale of "surplus" products. It should be quite obvious that the urge for selling abroad a surplus in this sense is quite distinct from the urge to build up a foreign surplus of which Joan .Robinson speaks in her exposition of a "begar-my-neighhour" policy. The first is an exercise in growth, of which the historically most significant examples come from comparatively self -sufficient, backward countries, breaking, for the first time, into the world market and transforming their domestic economies; the second is an attempt to "export" unemployment in a period of depression. Conceptually as well as functionally, the word "surplus" stands for two different things in the two contexts.

Japan's Need for Export Outlet

While some countries may expand their agriculture beyond what is strictly necessary to maintain their current growth of manufacture, and dispose of their surplus agricultural produce in the foreign market, other countries may feel compelled to seek a foreign outlet, for their manufactured articles even after they have done all in their power to make their agriculture more efficient. To this second group will belong countries which are heavily populated, and desirous of rapid economic development. Japan is a case in point. Japan's bid for the world market has been so spectacular that it has caught universal attention. But there has also been much quiet work in developing agriculture. Thus,' the yield of rice *per* unit of land- increased by nearly fifty per cent in the thirty years preceding World War I, Agricultural production itself is estimated to have increased nearly threefold between 1873 and 1913. (G.G. Allen "A Short Eco-

nomic History of Modern Japan", Appendix.)

Agricultural development Is a desirable, even necessary, support for industrial development in more than one sense. Not only does it help to enlarge the domestic market for manufactured articles, but it is also a source from which labour and capital flow to industry. That a reorganised agriculture yields surplus labour to growing industry is a commonly noted phenomenon. Less noted until recently, is the fact that, the extraction of surplus funds, whether in money or in kind, from the peasantry has been one of the traditional ways of .supporting capital formation in the early phase of industrialisation. In the cane of Japan, land tax formed one of the chief sources of revenue of the government in the early period of industrial development.

Pattern of Soviet Development

The USSR offers an interesting study in this respect From the point of view of natural resources and population pressure, the USSR resembles the USA rather than Japan. The pattern of Soviet economic development has, however; been significantly different from that of the USA not only in institutional terms which are well known, hut also in terms of the balance between agriculture and industry. Russia has been agriculturally self-sufficient since well before the Revolution. Hut what is' remarkable here is the performance of her agriculture during the last three decades of extra-ordinarily rapid industrial development. Though agriculture has undergone during this period radical organisational changes, and though it has been mechanised so as to make it possible to draw away labour force to the growing industries, total grain output and livestock product show a distinctly disappointing record. (By contrast, the output of industrial crops has increased by a much higher proportion.) Over' the forty years following 1913, total grain output in the USSR increased by not. much more than a half a performance which compares strikingly unfavourably with that in the USA or Japan over a comparable period. Partly, this -may be due to soil conditions in Russia; but partly it is due also to Soviet economic policy. In the USSR, attention has centered chiefly on rapid industrialisation, and the rural economy has been exploited to feed the growing industries, an exploitation which was specially painful because agricultural productivity remained at a low level all the time. This, however, brings us back to one of our earlier questions: With a limited home market, how could the Soviet Union .clear her increasing industrial output? In the case of the USSR, neither expanding consumers' demand nor foreign market provided the necessary outlet. The outlet has been found in what we may call the "government market" for capital goods. The main part of the industrial output has consisted, of capital goods, and these have been directed by the State to the production of further capital goods, for mechanising agriculture, building up heavy industry, and strengthening defence, while the consumers market has remained limited throughout. An alternative line of economic development in the USSR would have been, as suggested by Bukharin in the closing years of the 'twent'es. to allow industrial expansion to be geared to the growth of agriculture, with greater attention paid to the increase of agricultural output, and with free relations of exchange between agriculture and industry; in short, something resembling the sectorally balanced growth that we have discussed earlier. With Bukharin's model, industry would still have been under state management, but the peasants would have been spared the methods of force used against them, consumer goods industries would presumably have received greater attention, while the rate of industrial expansion would have probably slowed down to some extent.

Scope for Improvement of Indian Agriculture

In the light of the above, some comments may be made on recent economic development in India. As has been noted earlier, Indian agriculture has been in a painful state of stagnation for a very long time. "Stagnation" is, indeed, a mild word here. As the Indian census of 1951 points out, since 1920 agricultural output in India has been lugging behind population growth. Under the circumstances, improvement of agriculture was on the order of the day when the First Five Year Plan was introduced. Between 1950-51 and 1954-55, a comparatively brief period of four years, the production of food grains showed a welcome increase of over thirty per cent (from 50 million to 65.8 million tons). While part of this increase was due to good monsoons, part must Joe accounted for by more .solid improvements, such as, extension of irrigation, reclamation of uncultivated land, and introduction of better farming (e g Japanese type of rice cultivation). It is evident, nonetheless, that there still remains an enormous scope for further improvement of agriculture, and that with the present food production the Indian population can only be maintained at a. very low dietary level. Also very important is improvement of the livestock to add value and variety to the Indian diet. The contrast between the diet of North West India and that in the North East and the South is an unmistakable pointer to the need for changes in, this direction. Meanwhile India also requires to develop her Industries to provide greater employment and to raise her national output. The Second Five Year Plan has shifted the emphasis from agriculture to industry. The need for greater attention to industry, and some attention to heavy industry, is beyond question. India has vast reserves of iron ore. There is no reason why these resources should not be properly developed, in order to meet growing home demand, and, ultimately, even to develop export. But industrial development will mean greater demand for food and raw materials from an expanding secondary sector of the economy and a. growing non-agricultural population. Additional demand for foodstuff will also arise from the natural growth of population. Under the circumstances, agriculture cannot be neglected for some years to come without, exposing the Indian economy unduly to serious shortages, culminating possibly in rising food prices, which in turn may lead to raiding wages and 'general inflation. The alternative is Increased imports of foodstuff and other agricultural products. In the face of an innation or increased imports, planned investments will have to be cut down, or if the level of investments is to be maintained, it may be necessary to have recourse not only to price control and rationing of consumption, but also to compulsory requisitioning of agricultural produce, in some form or other. This in its turn *may* have serious political repercussions, jeopardising the professed democratic aims of the Indian Plan. It is in this background that the Prime Minister's studied stress on food output, while initiating in the Parliament the discussion on the Plan's principles, comes with 'a welcome ring.