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Balanced Versus Unbalanced Growth

by Dr Wilfred A. Ndongko, Yaounde *

The question as to which economic sectors can play a leading role in a development process has given rise to two schools of thought. The author presents a survey of the "balanced" and "unbalanced" growth theories paying special regard to their practical applicability in the framework of international development strategies.

The necessity to undertake an analysis of "balanced" and "unbalanced" growth theories as operational international development strategies stems from the fact that many multilateral and bilateral aid agencies in the developed countries (DCs) and policy-makers in the less developed countries (LDCs) are often faced with the problem of choosing the appropriate economic sectors and regions for investments in the latter. The problem has been further aggravated by the fact that planners and decision-makers initiate many social and economic projects which compete for the limited resources — financial, physical and human — at their disposal.

It has been generally argued that in order to ensure a pattern of production that will maximize the gross domestic product of the LDCs, a rapid encouragement of economic activities, that are labelled "leading sectors"¹ of the economy, should be promoted.

Investment prospects are expected therefore, to hinge on the effects of the expansion of the leading sectors in complementary or related sectors of the economy. In the context of international development, the implication is that the practice by multilateral and bilateral aid agencies of financing mainly projects in the social and physical infrastructure sectors may not necessarily lead to the direct maximization of the national product. This is because the returns from investment made in these sectors are difficult to quantify and in particular, there is a long period of gestation involved before the benefits can be realized. However, the question as to which economic sectors can play a leading role in the development of the economy, has given rise to two schools of thought — "balanced" and "unbalanced" growth schools.

The students of balanced growth² strategy assume that the supply of capital and manpower is "elastic" and therefore argue for a simultaneous expansion of a number of interrelated sectors of the economies of the LDCs. They also assume a

perfect knowledge of the constraints or of such conditioning factors as technical and demand relations, the rate of capital accumulation and the rate of growth of the labour force³. Furthermore, they take the above constraints as given data, except Nurkse who recognises the structural interdependence among various economic sectors. To this extent, the multilateral and bilateral aid organisations are expected to finance projects in the industrial as well as agricultural, social and physical infrastructure sectors. By so doing, they will be fostering a balanced development of the various economic sectors in the LDCs.

The Balanced Growth Strategy

As regards the choice of the pattern of resource allocation, the balanced growth school argues that the pattern of resource allocation should be chosen such that at every stage of development, the available production capacity is fully utilized in all the economic sectors; therefore no surplus or shortages should exist. The choice of production techniques under balanced growth is emphasized by Lewis who discusses the problem in relation to overpopulated underdeveloped economies and regions. He contends that since the social opportunity cost or the marginal productivity of labour is low, it would be advantageous for the countries in question to adopt intensive techniques wherever feasible⁴.

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¹ A "leading sector" is that sector of the national or regional economy that contributes most to the rapid transformation of the structure of the economy in question, and, therefore, to the rate of growth of the gross domestic product.

² The leading exponents of this doctrine include: R. Nurkse, "Equilibrium and Growth in the World Economy", in: G. Haberler (ed.), *Economics Essays*, Cambridge 1961, pp. 316-22; R. Nurkse, *Problems of Capital Formation in Underdeveloped Countries*, London 1953; W. A. Lewis, *The Theory of Economic Growth*, London 1955, pp. 20-33; R. Caves, *Trade and Economic Structure*, Cambridge 1960.

³ It should be noted that Lewis alone recognizes that the demand and output relations are to alter in unforeseeable ways; cf. Lewis, *op. cit.*, p. 389.

⁴ Cf. W. A. Lewis, *op. cit.*, pp. 351-2 and his: *Development with Unlimited Supplies of Labour*. In: *The Manchester School*, 1954, pp. 139-92; *Unlimited Labour: further notes*. In: *The Manchester School*, 1958, pp. 1-32.

Notwithstanding the practical appeal of the balanced growth strategy to many less developed nations, its underlying unrealistic assumption of elastic supplies of capital and manpower has impeded its successful application. Firstly, the very existence of the Third World and the slow pace at which foreign aid is flowing to the LDCs is a testimony of the fact that both capital and manpower are not as readily available in terms of quantity and quality, as assumed by the protagonists of balanced growth. Secondly, the imperfections inherent in the allocation of grants and loans by aid donors to the LDCs, due to non-economic and social considerations, create acute bottlenecks in the implementation of any development policy⁵. Bilateral aid donors in particular, in the DCs very often underestimate the cost advantages of financing projects in depressed or backward areas of the LDCs and by their behaviour create a net demand for public physical and social infrastructure in the developed areas⁶.

The assumption of unlimited supplies of manpower particularly by Lewis, and the later theoretical refinements and extensions⁷, is also unrealistic. From the viewpoint of the flow of skilled manpower from DCs to LDCs, nothing is said about the lack of experience by foreign experts. To this extent, an efficient utilization of foreign technical personnel requires additional orientation which will enable them to adjust and to meet the challenge of development in a new setting and environment. Besides, foreign personnel from bilateral and multilateral aid agencies is not available in unlimited quantities because many LDCs make requests to these agencies for experts who can advise, formulate and in some cases execute development policies. In addition, the costs of maintaining experts in the LDCs are increasing rapidly.

Attempts to provide the assumption of unlimited supplies of manpower in the LDCs with an empirical foundation have not met with success in Africa⁸, Yugoslavia⁹, Puerto Rico¹⁰, and India¹¹.

⁵ W. Goldsmith, *Financial Structure and Development*, New Haven 1969. A. K. Rozental, *Unorganized Financial Markets and Development Strategy*, *The Journal of Developing Areas*, Vol. 2, 1967, No. 3.

⁶ Gordon C. Cameron, *Regional Economic Development: The Federal Role*, Baltimore 1968. The additional infrastructure in advanced areas may increase the return on private capital and therefore attract investors.

⁷ G. Ranis and J. C. Fei, *A Theory of Economic Development*. In: *American Economic Review*, Vol. II (1961), No. 4, pp. 533-58; G. Ranis and J. C. Fei, *Development of a Labour Surplus Economy*, Homewood, Illinois 1964; and L. G. Reynolds, *Economic Development with Surplus Labour Source Complications*. In: *Oxford Economic Papers*, March 1969.

⁸ R. W. M. John, *Disguised Unemployment and the Village Economy*. In: *African Social Research*, June 3, 1967, pp. 229-233; Sara S. Berry, *Economic Development with Surplus Labour: Further Complications Suggested by Contemporary African Experience*. In: *Oxford Economic Papers*, July 1970.

⁹ Branko Horvat, *Note on Wages and Employment in Labour Surplus Economies*. In: *The Manchester School*, March 1968.

The results obtained from the various studies indicate that

☐ there is no evidence of zero or negative marginal productivity of labour in the Indian and African rural areas where there is surplus labour and

☐ wage-employment locus has actually moved upwards in Yugoslavia, Puerto Rico, and Africa, and not horizontally as assumed by Lewis and other students of balanced growth strategy.

The rise in wage rates can be explained by such institutional factors as increasing demands for higher wages by labour unions, even in the presence of surplus labour, and the subsequent inducement on entrepreneurs to introduce labour-saving techniques which would shift the marginal productivity schedule of labour upwards.

With respect to the flow of skilled manpower from international multilateral and bilateral aid agencies, it is plausible that an empirical attempt to measure the marginal productivity of foreign experts may yield some very startling results, which will vary from one LDC to another. For example, in some cases one may find that the attempt by some experts to impose their ideas on the indigenous people may lead to negative marginal productivity of technical personnel. In other cases, the accumulated experiences and the effort of some experts to understand local development problems may yield a high marginal productivity of foreign personnel. Thus, from the point of view of international development, unlimited supplies of technical personnel may lead to negative, zero or positive output in the LDCs.

The Unbalanced Growth Doctrine

The dissatisfaction with the theoretical underpinnings of the balanced growth doctrine gave rise to a new school of thought — that of unbalanced growth¹² — which has an intellectual as well as a practical appeal. *Firstly*, it recognises the problems of inadequate capital supply, limited managerial ability and technological innovation and the differences in the quality of labour in the LDCs. *Secondly*, the approach argues for concentrated and sequential development patterns to achieve economies of scale and significant breakthroughs which induce further development on a regional basis.

¹⁰ L. G. Reynolds, *Wages and Employment in Labour Surplus Economy*. In: *American Economic Review*, 1965.

¹¹ T. W. Schultz, *Transforming Traditional Agriculture*, New Haven 1959.

¹² A. O. Hirschman, *The Strategy of Economic Development*, New Haven 1958; W. W. Rostow, *The Stages of Economic Growth*, Cambridge 1960.

The constraints arising from the limited flow of capital and managerial talents from the DCs to the LDCs can only be known during the growth process. Unless, therefore, the economy keeps bumping against the Hicksian ceiling¹³, it is not possible to know the full possibilities of development under the existing conditions. Thus it is, indeed, the *raison d'être* of unbalanced growth to modify the conditioning factors or "external frame" of the economy so as to raise the growth rate higher than that which can be attained otherwise¹⁴.

The unbalanced growth doctrine provides the inducement mechanism for breaking through the constraints, overcoming the conditioning factors, and lifting the economies of the LDCs from their traditional state by means of innovation, to use Schumpeter's terminology¹⁵. Thus, the volume of investment from international aid agencies and foreign governments becomes an increasing function of certain types of imbalances, which have been deliberately created in the LDCs. An example is the imbalance between social and physical infrastructure financed by most aid donors and directly productive activities which are financed by private foreign and domestic investors.

The core of Hirschman's analysis of unbalanced development lies in his arguments for concentrating investment on projects with the highest combined forward and backward linkages¹⁶. To him, the development of economic projects with strong forward and backward linkages is highly desirable¹⁷.

The location of such projects within a less developed area may provide a stimulus to other firms, already located in the area. Aid donors seem to have been guided in their choice of projects by Hirschman's powerful growth theory. At the same time, private foreign investors have been concerned with directly productive activities in the LDCs.

An example of an economic activity which is usually financed by multilateral aid agencies and which generates both forward and backward linkages is railway transport. *Firstly*, it directly stimulates industries such as iron, steel and coal, and other related industries. *Secondly*, it indirectly opens up new areas for commercial trade. To this extent, it has a trade-creating effect (not in the Vinerian sense) which results in profit opportunities for industries, and therefore, provides the

type of inducement mechanism which Hirschman advocates. As noted earlier, Hirschman introduces the problem of the quality of the available labour in the backward or lagging region. To him, the choice of the production is determined by the nature and type of labour available. The attempts by aid donors and agencies to provide experts is a recognition of this bottleneck in the LDCs.

Estimation of Linkage Effects

However, the unbalanced growth, like the balanced growth strategy, has shortcomings which have prevented its complete acceptance by policy-makers dealing with the development problems of the LDCs. *Firstly*, Hirschman's quantification of the linkage effects is misleading for two reasons:

- ☐ His data relate only to advanced countries where the development of basic facilities including transport and communications, public services, etc., has reached a high level, and
- ☐ his linkages are estimated only on the basis of current output requirements and not on the basis of capital requirements¹⁸.

The value of the linkages in the case of basic facilities like transport, is, therefore, low in his estimates. If his estimates of linkage effects of basic facilities were appropriately done, his arguments against excess capacity creation of social overhead capital¹⁹ will be contradicted.

Secondly, although a deliberate strategy of unbalanced growth through the creation of shortages can generate a faster rate of growth in the LDCs there is the danger that imbalances beyond a point could lead to an explosive situation from an economic as well as from a social viewpoint. For example, there is no guarantee that by concentrating its resources in the expansion of transport and communication facilities, and, therefore, neglecting the provision of certain basic services such as health, water supply, the LDCs will attract external private capital into the productive sectors of their economies. Consequently, in taking decisions regarding the type and extent of imbalance to be created, it will be necessary for aid agencies, to ensure that their intensity is such as to generate a desirable corrective programme in the LDCs.

Conclusion

Notwithstanding the shortcomings indicated above, it would seem that both "balanced" and "unbalanced" growth theories could guide international aid agencies in aid allocation, particu-

¹³ J. R. Hicks, *A Contribution to the Theory of the Trade Cycle*, Oxford 1950.

¹⁴ Hirschman, *op. cit.*, Chapter IV.

¹⁵ J. Schumpeter, *The Theory of Economic Development*, Cambridge 1961.

¹⁶ Hirschman, *op. cit.*, p. 94.

¹⁷ *Ibid.*, Chapter 6.

¹⁸ *Ibid.*, Chapter VI, and for historical experience in this matter, see Rostow, *op. cit.*, pp. 55-57.

¹⁹ Hirschman, *op. cit.*, Chapter 5.

larly because of their usefulness in the making and implementation of development policies. *Firstly*, both approaches recognize the need for the creation of excess capacity of social overhead capital in view of the assumed functional relationship between social and physical overhead capital and other directly productive investment²⁰. *Secondly*, unbalanced growth as a strategy of development has justification only in the perspective of balanced growth²¹. This is because balanced growth by itself, to use Schumpeter's phrase, is "insufficiently motivated". It is the function of unbalanced growth strategy to provide the motivation for productive investment which has to originate solely from the private sector.

Furthermore, the use of either approaches to development involves decisions by a collective agency with adequate policy instruments at its disposal to guide the economy towards a desirable direction. Such a collective agency, the need for which is recognized in both strategies²² is the State. To this extent, the governments of the LDCs can control the allocation of development resources provided by the international aid agencies and foreign governments. This will, enable the LDCs to keep constant watch over the

magnitude of the imbalance created in their economies by external public aid donors and foreign private investors.

Despite the complementarity of the two approaches, it must be emphasized that the development process can lead to political and social tensions because of continuous economic disparities between the various regions and economic sectors in the economies of the LDCs. Such disparities may cause a severe strain on their national political framework. To this extent, international aid agencies and policy-makers in the LDCs must make sufficient appraisals of the prevailing economic, social and political state of each country in which all or some of the operational principles, underlying both the "balanced" and "unbalanced" growth strategies are being chosen to guide the allocation of aid between the various economic sectors and regions.

²⁰ Nurkse, op. cit., pp. 267-275; Hirschman, op. cit., p. 94.

²¹ Indeed, Hirschman's use of the input-output tables for estimating his linkages, in fact, points to the importance which he attaches to balanced development.

²² Lewis, The Theory of Economic Growth, op. cit., pp. 383-392; Hirschman, op. cit., pp. 60-65; 202-203. It should be noted however, that in the earlier part of his discussion, Hirschman seems to favour some initial action by the State, pp. 60-65, but in his final Chapter he seems to recognize the need for subsequent State action, too, pp. 202-203.

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