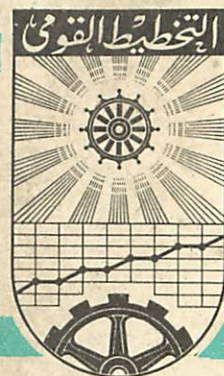


# UNITED ARAB REPUBLIC

## THE INSTITUTE OF NATIONAL PLANNING



Memo. No. 200

Annotated Bibliography on Investment  
Criteria for Economic Development of  
Under-Developed Economies

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Annotated Bibliography on Investment Criteria  
for Economic Development of Under-Developed  
Economies (1) General.

1. Buchanan, N.S.; International Investment and Domestic welfare, New York, 1946.

Among the topics considered are the economic aspects of planned industrialization and the relation between foreign borrowing, domestic investment, and balance of payments problems. The author maintains that " If investment funds are limited, the wise policy, in the absence of special considerations, would be to undertake first those projects having a high value of annual product relative to the investment necessary to bring them into existence."

2. Chenery, H.B., "The Application of Investment Criteria" Quarterly Journal of Economic, Feb. 1953. pp. 76 - 96.

The main purpose of this paper is to "bridge the gap between theory and practice " and " to seek a workable method of formulating and testing investment programmes in under-developed areas. "The basic tool used is an approximation to the social marginal productivity which can be applied to individual comparison among investment projects. "Data are taken from Greece, Turkey, Portugal & Southern Italy.

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- (1) PART of this list is taken from A. Hazelwood, the Economics of under-developed Areas: An Annotated Reading list Books, Articles and official Publication. London 1959; and An ECARE pamphlet on Criteria for allocating Investment Resources Bangkok, 1959.



3. "Resources Allocation for Economic Development"  
Econometrica Oct. 1956. pp. 365 - 99

The primary purpose of this study is to develop a model on linear programming and input - output techniques which will assist in the formulation of development programmes for under-developed areas". See also "The Role of Industrialization in development Programming", American Economic Review 1955, pp. 40-57, an article based on the same study.

4. Dobb, M; on Economic Theory and Socialism, collected papers, London 1955, PP. VIII, 293.

" A Note on the So-Called Degree of Capital Intensity of Investment in Under-developed Countries"

The idea that in under-developed economies where capital investment should take the form of low capital intensity is criticized as having much less generality than it is usually assumed to have. The choice between labour intensive and capital intensive techniques of production "depends not on the existing ratio of available to capital ..... , but on precisely the same considerations as those which determine the choice between a high and a low rate of investment ... "

5. Eckans, R.S., "The Factor Proportions Problem in Under-developed Countries "American Economic Review Sept. 1955 pp.539-65



The paper attempts to help to clarify some of the issues involved in the concepts of "Structural disequilibrium", "Over-population", "Technological unemployment", and under-employment", and to "begin to provide a theoretical basis for their analysis."

6. Eckstein, O., "Investment Criteria for Economic Development and theory of International welfare Economic" Quarterly Journal of Economics Feb. 1957, pp. 56 - 85.

It is argued that if a satisfactory rate of capital accumulation cannot be achieved by fiscal policies the investment criterion "must reflect the projects" direct contribution to consumers welfare as well as the indirect contribution made Possible by the generated addition to the capital stock. "the optimum combination of the interest rate and the growth rate is also discussed.

7. Enke, S., "Speculations on Population Growth and Economic Development" Quarterly journal of Economic, Feb. 1957, pp. 19 - 35.

The Thesis of this article is that "there may be substantial long run advantages in investing in urban facilities and plants, rather than in increasing food supply through, say, land reclamation projects. "It is argued that "plans for the economic development of densely populated countries, having high death and birth rates, must seek kinds of investment that will eventually decrease population relative to the supply of consumption goods."



8. Fleming M., "External Economies and the Doctrine of Balanced Growth", *Economic Journal*, June, 1955, PP. 241-56

An examination of the basic assumptions underlying the theory of balanced growth as presented by Nurse R. (No 11) It is concluded that " the argument, as usually presented over-emphasizes the repercussion on the demand for, and ignores repercussions on the cost of, the other industries, and that, in an economy where factors of production are in fixed supply, the introduction of unprofitable though efficient large scale production in one industry is more likely to reduce than to increase the profitability of other industries." However, " the chances are much better for a 'vertical' propagation of external economies, from customer industry to supplying industry. " See also notes by R. Nurkse, *ibid.*, June 1956, pp. 365-7 , and by Fleming *ibid.*, Sept. 1956, pp 537 - 9.

9. Kahn A.E. "Investment Criteria in Development Programmes" *Q.J.E.*, Feb., 1951, pp. 38 - 61.

It is argued that the suggested criteria such as those analysed by Buchanan (No. 1) and Polak (No. 19) are essentially erroneous, though they may be useful as practical rules of thumb. The correct criterion is Social marginal productivity, " taking into account the total not contribution of the marginal unit to national product, and not merely that portion of the contribution (or of its cost) which may accrue to the private investor. "



10. Novozbilov, V.V., " On Choosing Between Investment projects." International Economic papers, No, 6, pp. 66 - 37 a translation of two contributions to the soviet discussion of the subject. One is "Methods of comparing the economic effectiveness of alternative processes of production", and the other "Methods of determining minimum Cost in a socialist economy."
11. Nurkse, R. Problems of Capital Formation in Under-developed Countries, Oxford 1953.

This study examines the weakness of investment incentives in under-developed economies resulting from the smallness of the market. With regard to capital supply, the potential savings in rural under-employment is emphasized.

12. Raj; K.N., "Application of Investment Criteria in the Choice Between Projects " Indian Economic Review Aug. 1956 pp.22-30.

As attempt to answer the Question "given the investment allocation ..., and the alternative technical possibilities, how are the different projects designed to be ranked and some selected in preference to others? "It is mainly concerned with the investments meant to build overheads of economic development."

13. Strumilin, S.G., "The time Factor in Capital Investment Projects", International Economic Papers No. 1 pp. 160-85

A discussion of the "planning of the most advantageous constructional projects in such a way as to take account of the influence of the time-factor on their comparative efficiency"



14. Tinbergen, J. The design of Development this study covers the elements of development Policy. Problems, project appraisal and methods of stimulating private investment. As a desirable investment criterion, he suggests a national product test based on "accounting prices" which reflect intrinsic values of goods and services, especially factors of production.
15. United Nations Department of Economic & Social Affairs.  
Measures for the Economic Development of Under-developed Countries. Report by a group of experts appointed by the Secretary general of the U.N. United Nations. Publication No. 51. 11. B.2.

The report consists of four parts "Introduction", Measures requiring domestic action, Measures requiring international action, and Recommendations". A general discussed among other topics are choices.

- a) between consumption & investment.
- b) between capital investment & investment in human beings.
- c) between foreign trade & Autarky.
- d) between industry & agriculture.

The authors of the report are : A.B. Cortez, D.R. Gadgil, G. Hakim, W.A. Lewis, & T.W. Schultz.

16. U.N. Economic Commission for Asia and the Far East, "Problems and Techniques of Economic Development with special reference to ECAFE region, Economic Bulletin for Asia and the Far East, vol. VI, No. 3, Nov. 1955. pp. 25-62.



This study include a section on aspects of programme formulation discussing various criteria for the determination of priorities.

### Balance of Payments

17. Das Gupta, A.K., "Effects of an Investment Programme on Foreign Exchange Reserves", Mobilization of Domestic Capital: Report and Documents of the working Party of Experts, U.N. Publication No. 53. 11. F. 4 pp 310 - 16.

The paper argues whether an exports surplus of certain magnitude is to be forthcoming as a result of the implementation of the plan, depends on what type of investment the plan envisages.

18. Liang. C.C., "The Impact of Different Types of Foreign Investment on the Balance of payments Position of the Far East Countries" , Mobilizations of Domestic Capital: Report and Documents of the working party of experts, U.N. Publication No. 53. 11. F. 4. pp 291 - 309.

A Paragraph is devoted to the choice of development projects from the point of view of balances of payments.

19. Polak, J.J. "Balance of Payments problems of Countries Reconstructing with the Aid of Foreign Loans Q.J.E. Feb. 1943, pp 208 -40. Reprinted in American Economic association, Readings in the Theory of International Trade, pp. 459-93 An analysis of the different effects on the balance of payments of various types of investment projects financed by foreign loans.



20. U.N. Economic Commission for Asia and the Far East, "Relation between Foreign capital and the Mobilization of Domestic Capital", Mobilization of Domestic Capital: Report and Documents of the working Party of Experts, U.N. publication No. 53. 11. F. 4, pp 270-90.

Part 1 of this paper deals with the relations between foreign capital and public expenditure while part 11 deals with foreign capital and the private sector. There is also a technical appendix to the paper discussing in detail the measurement of the foreign exchange requirements of expenditure programmes.

#### Agriculture

21. U.N. Economic Commission for Asia & the Far East; "Criteria and Techniques for Selection of Best Technical Means for Agricultural Expansion", Economic Bulletin for Asia and the Far East, Vol. VIII. No. 3, Nov. 1957.

The paper deals with the possibilities and relative advantage of various technical means for agricultural expansion. It also discusses features of cost and benefit analysis in under-developed countries with an appendix illustrating the application of cost benefit analysis to the Shihmen Reservoir Projects in Taiwan.



22. Sub. Committee on Benefits and Costs, Federal Inter-Agency River Basin Committee, "Proposed Practices for Economic analysis of River Basin Projects." Washington, D.C. 1950.

This report presents the conclusion and recommendations resulting from a series of studies in the United States on acceptable principles and procedures for determining benefits and costs of water resources development projects. The main items discussed are the benefits cost analysis Standards, Problems of measurement and application of principles for analysis.

23. United Nation Economic Commission for Asia and the Far East, Multiple Purpose River Basin Development part 1 : Manual of River Basin Planning. U.N. Publication No. 55. 11. F. 1 P. VII - 79.

The manual is intended to describe and discuss the basic problems arising out of a comprehensive river basin Planning including techniques of benefit cost analysis as well as financial feasibility, and reimbursement and allocation of costs.

#### Industry

24. Bhatt, V.V., "Capital - output Ratios of Certain Industries A comparative study of certain countries, "Review of Economic and Statistics, Aug. 1954, pp. 309 - 19.



The empirical evidence for a number of developed and under-developed countries does not support the expectation that capital output ratios are lower for the same manufacturing industries in the less developed countries than in the more advanced countries. Data are drawn from Australia, Canada, India, Mexico, New Zealand, Peru South Africa, & U.S.A.

25. "Capital Intensity of Industries: A Comparative Survey of Certain Countries;" Bulletin of the Oxford University Institute of Statistics, May 1956, pp. 179 - 94.

The Author discusses various technological factors affecting capital intensity in under-developed countries as compared with that of the corresponding industries in the developed economies and suggests that "the under-developed economies ..... have not been able to develop a new technology suited to their own economic conditions."

26. Bohr, K.A. "Investment Criteria for Manufacturing Industries in under-developed countries, "Review Economic and statistics, May 1954, pp. 157 - 66.

An attempt " to indicate by an analysis of industrial characteristics the extent to which various industries may be adapted to the conditions usually found in under-developed economies."

The characteristics selected for study are "the requirements of capital and skilled labour, plant size and locational pattern."



27. Granick, D., "Economic Development and Productivity Analysis: A case study of Soviet Metalworking," Q.J.E. May 1957, pp. 205 - 33.

It is argued that Soviet policy in metal working has "followed orthodox Western economic doctrine of substituting plentiful factors for scarce ones" and that most recent Western technology cannot be simply copied. "Technology and production organization are inseparably linked and must to a considerable extent, be developed a new in each country."

28. Holzman, F.D, "The Soviet Ural-Kuznetsk Combine: A Study in Investment Criteria and Industrialization Policies." Q.J.E. Aug. 1957. pp. 368 - 405.

The Article outlines the history of the combine, and develops a new social marginal productivity criterion for evaluating it as an investment project which takes into account not only social economies and diseconomies, but also the rate of growth & the time horizon of planning.

29. Mandelbaum, K. Industrialization of Backward Areas, Oxford Institute of Statistics, Monograph No. 2, Kelly and Millman Inc., New York, 1955.

An attempt to work out a model based on balanced growth concept for some East & South East European countries. The Author defined his objective in terms of diverting the surplus agricultural labour to industrial activities by achieving "a rate of industrialization sufficient to absorb in industrial employment the natural increases of population within say a generation."



30. Rosenstein - Rodan, P.N. "Problem of Industrialization of Eastern and South Eastern Europe, "Economic Journal, June - Sept. 1943, pp. 202 - 11.

The Author emphasizes the inter-dependence between production and markets, and argues, that individual projects may appear unattractive because of the limited size of the market, but if a number of the projects are taken together, each supporting to others, the collective programme can be made profitable. See also Nurkse (11) and Mandelbaum (29).

31. United Nation Economic Commission for Asia & the Far East "Criteria for Selecting Particular Industries for Establishment or Expansion, "Economic Bulletin for Asia & the Far East. Vol. IX, No. 3, Dec. 1958, pp 38 - 15.

Basically, international specialization provides major determinants in the selection of industries for establishment or expansion. From the point of view of a developing economy, however, the indirect contribution to the society of a new industry has also to be taken into consideration, the possibility of differences between market prices and "the intrinsic value" of the factors of production should be taken into account, and the relation of the project to future development is also important. The use of "Accounting prices" is also briefly discussed.



