Optimal Development Policies: Lessons from Experience

Jan Tinbergen

ECONOMIC DEVELOPMENT: THEORY, POLICY AND INTERNATIONAL RELATIONS, by I.M.D. Little (New York: Basic Books, for the Twentieth Century Fund, 1982; and London: Harper & Row, 1982) 463 pp., $22.95 and £12.00.

THE POVERTY OF 'DEVELOPMENT ECONOMICS', by Deepak Lal, Hobart Paperback No. 16 (London: Institute of Economic Affairs, 1983) 143 pp., £3.00.

THE THEORY AND EXPERIENCE OF ECONOMIC DEVELOPMENT, Essays in Honour of Sir W. Arthur Lewis, edited by Mark Gersovitz, Carlos F. Diaz-Alejandro, Gustav Ranis and Mark R. Rosenzweig (London and Boston: Allen & Unwin, 1982) 412 pp., £25.00 and $37.50.

After de-colonisation some one hundred new countries had come into existence and were faced with the problems of autonomously shaping their future — at least so it seemed. Their policies, formally speaking, were made by citizens of their own nationality. These policies varied from those of the colonial rulers taken over by national élites to the development of new policies aimed at serving, more consciously, the interests of all their people, the majority of whom lived in great poverty. 'Development policy' was the name given to the new endeavours whose ideal was, or was meant to be, to raise the standard of living in the way best possible in the prevailing circumstances. Different experiences have been accumulated from the different courses followed for almost 40 years by some and for far less by other new nations. What is still needed is an optimal development policy within ever-changing surroundings. These surroundings may be characterised by listing a few features: the rapid increase in population, the unprecedented development of scientific knowledge, proposals for international trade policies and investment, with the controversy between the United States and the Soviet Union in the background.

JAN TINBERGEN: Emeritus Professor of Development Economics at the University of Rotterdam and the University of Leiden; awarded the Nobel Prize for Economics in 1969.

Many of the divergent policies followed must be considered as sub-optimal. The identification of an optimal development policy for the countries of the Third World under discussion remains, therefore, an issue of high priority. It is complicated enough to require some forward thinking or (indicative) planning. It is in this context that this review article on three recently published books is offered.

The article is based on the planning approach to economic development. I.M.D. Little considers that approach, as it has been implemented so far, to be 'a failure'. The only conclusion from that statement which this reviewer wants to draw is that better planning is therefore needed.

Policy planning requires an econometric approach; that is, the systematic and integrated use of theoretical and empirical knowledge, also known as model building. This approach consists of the following tasks:

(a) drawing up a list of variables to be considered;

(b) formulating a list of relationships assumed to exist between the variables;

(c) collecting empirical data on the variables;

(d) testing the assumed relationships and changing these until they have become statistically reliable; and

(e) using the model so obtained to find the optimal policy.

Before dealing with the last task, some remarks will be made on the four preceding ones. The first task consists of identifying the important features of the economy under study and its development. The list will contain such variables as production, consumption, investment, prices of goods and services considered, imports and exports (in terms of both volume and price), monetary and financial entities, production factors such as labour employed — preferably sub-divided into categories — and the corresponding incomes, variables of the education system and government activities (in real and financial terms).

Drawing up this list is largely a descriptive activity and hence it is linked with what is characteristic of 'literary economics'. It is contained, as the necessary basis, in the one-author texts by Deepak Lal and Professor Little and in the multi-author text of the *festschrift* in honour of Sir Arthur Lewis, particularly in the 'literary' essays by Göran Ohlin on negotiating international order, by Sir Alec Cairncross on economic growth and stagnation in the United Kingdom before World War I, by Lloyd G. Reynolds on inter-country diffusion of economic growth in the period 1870-1914, dealing with twelve developed and nine developing countries, by Carlos Diaz-Alejandro on Latin America in the depression of 1929-39, by Professor Little on Indian industrialisation before 1945, by Charles P. Kindleberger on the cyclical pattern of long-term lending and by Simon Kuznets on the pattern of shift of labour force from agriculture in the period 1950-70. As a matter of course, the variables mentioned in these essays are concentrated on the special subjects dealt with.

The second task, formulating a list of relationships assumed to exist between the variables, should ideally be a piece of mathematical economics and is so in the chapters of that character in the Lewis *festschrift*. These chapters are the ones by Lance Taylor on food price inflation, terms of trade and growth, by Joseph E. Stiglitz on alternative theories of wage determination and unemployment (the efficiency-wage model), by Pranab K. Bardhan on unequal exchange in a Lewis-type world, by Ronald Findlay on protection and growth in a dual economy, by T.N. Srinivasan on general equilibrium theory, project evaluation and economic development, by William J. Baumol on planning and dual values of linearised non-linear problems (a Gothic tale) and by Partha Dasgupta on the economics of pollution control, again concentrating on relations playing a role in the subject chosen. All the books under review mention the relevant relationships, but in words only, with — as a rule — the corresponding loss of exactitude. Few types of relationships can be expressed equally precisely in words as in formulae.

The third task, the collection of empirical data on the variables dealt with, is carried out most precisely in Professor Kuznets' essay; in six tables in Deepak Lal's book and eight in Professor Little's. Neither Mr Lal nor Professor Little contribute much new of a quantitative character, mainly building on the quantitative work of others and on their own experience, which should not be under-estimated. Both authors are among the best in this field.

The empirical information needed for the implementation of the fourth task, testing and adapting the assumed relationships, may in principle be derived from two sources: a time series for the economy concerned or 'cross-section data' — that is, figures for a number of comparable countries at about the same time. The former is more useful for short-term policies and the latter is more useful for long-term policies. Cross-section comparisons in a way compare the successful with the failing countries. The former are, among the developing countries, the so-called 'Gang of Four', namely Taiwan, Hong Kong, Singapore and South Korea. Among the less successful, several Latin American and African countries may be found.

The fourth task constitutes the central task in econometric model building. Contributions of this kind are not aimed at by Mr Lal and Professor Little or the majority of the contributors to the Lewis *festschrift*. Some rather specialised econometric contributions are made by four essays in the last volume, the ones by Mark R. Rosenzweig on agricultural development, education and innovation, by Arnold C. Harberger and Sebastian Edwards on the lessons of experience under fixed exchange rates, by William H. Branson and Louka Katseli on currency baskets and real effective exchange rates and by Mark Gersovitz on uncertainty, information and the inflation tax in poor countries.

By this stage, when dealing with a given economy in a given time span, there has been established an econometric model or, in other words, a theory of that country's development during the period considered. In still other words, we have defined the country's structure and the present 'state of the art' and how to apply it in order to define the optimal development policy.

By contrast, Professor Little aims to describe the history of development economics and does so in an admirable way, based on the extensive Anglo-Saxon literature. As already mentioned, he considers planning to have been a failure, but he does not conclude that it should be improved; rather he argues that it should be done without. He is the leading project evaluator and the Little-Mirrlees method is famous. But in his treatment he does not deal with one aspect set out by Arie Kuyvenhoven in 1978 and called in the Netherlands the semi-input-output method.[1] A concrete example of its importance is the evaluation of an electricity plant. From the semi-input-output method it follows that such an evaluation is impossible if the type of industries to which the electricity will have to be supplied is not known. In this text Professor Little's solution is not discussed.

Professor Little's historical survey is masterful. It starts in 1943, the year in which the pioneer Paul Rosenstein Rodan published his study on the industrialisation of Eastern and South-eastern Europe.[2] The first period is dealt with in Part II and extends to 1960. Well-known arguments in this period of theorising with limited factual and quantitative information are taken up. Among them is the Latin American debate on structuralism versus monetarism, initiated by Raúl Prebisch, now the grand old man of the Third World, who first worked in the Economic Commission for Latin America (ECLA) and later was the creator of the United Nations Conference on Trade and Development (UNCTAD), the first United Nations agency where the Third World, as a whole, felt 'at home'. Other concepts of the 1943-60 debate are (i) the dual economy, the concept introduced by the reviewer's compatriot J.H. Boeke, whose contributions in Dutch have even been inaccessible to Gunnar Myrdal in his *Asian Drama*,[3] although the Dutch and Swedish languages have much in common; and (ii) surplus labour, overestimated because of the seasonality of demand for agricultural labour. Surplus labour was the basic concept in Sir Arthur Lewis' well-known 1954 article which was the start of his series of important studies on the subject.[4]

It is in this period, also, that Walter W. Rostow launched, somewhat imitating Marx, but announced as an 'anti-Marxist manifesto', his ideas about the stages of growth. Professor Little considers 'areas of neglect' in that period to be agricultural and rural development, population theory, capital markets and human capital. In his view, 'themes of practical importance' were aid, land reform and taxation. One wonders whether or not land reform still constitutes, in many countries, an 'area of neglect'. Among the important facts overlooked from the start is the lack of interest of many governments for the poor among their citizens.

Professor Little sees a resurgence of neoclassical economics after 1960. Here he discusses planning, already mentioned, but to which I shall come back.

Around 1960, agriculture began to be seen in a more positive light, partly as a consequence of the population explosion. T.W. Schultz's book on *Transforming Traditional Agriculture* (1964) is a landmark.[5] Various ways of dealing with land reforms are discussed and, rightly, Taiwan (and Japan, quickly developing) get the best scores. Experience from Denmark and the Netherlands, suggesting that cooperation in agriculture should not be extended to the production process proper, is confirmed in the Third (and the Second?) World.

Industrial development should be based on relatively labour-intensive activities and technologies, sometimes by using second-hand equipment (as with local transport in Mexico City). Governments did not like such ideas for reasons of prestige and they often made a clear sub-optimal use of their countries' scarce capital resources.

Professor Little discusses a number of new topics, an important one being that of multinational enterprises, which had moved increasingly into developing countries in order to avoid import duties or to employ cheap labour. Here he considers that the only way to deal objectively with this issue is cost-benefit analysis, his favoured approach in which he excels. This reviewer joins Professor Little in holding this view. Another new topic is education (whose importance was discovered by economists after the practitioners had understood it), which Professor Little deals with briefly, but penetratingly.

The last historical period distinguished is characterised as the 'new radicalism', of which one of the catch phrases, Professor Little remarks, is 'basic needs', one of the recommendations of the report prepared by the International Labour Office (ILO) for the 1976 World Employment Conference.[6] Professor Little clearly does not like the approach and one of his arguments is lack of appropriate data. Another component of the new radicalism being income distribution, he quotes favourable changes for some rapidly growing developing countries (Brazil, Taiwan, Hong Kong) and doubts Professor Kuznet's finding that inequality first increases and decreases only after some industrialisation has been accomplished. In his studies for the ILO's World Employment Programme, Ferix Paukert reaches the same conclusion as Professor Kuznets, although he is not quoted.[7] A third component of the new radicalism is the dependency concept, as seen by the Latin American 'neo-Marxists'.

From the preceding paragraph is will be clear that Professor Little's historical approach to a description of the state of the art contains many valuable elements. Some drawbacks of his book are that it contains no general summary and that some non-Anglo-Saxon literature has been overlooked.[8]

Mr Lal's Hobart Paper, by contrast, has been summarised very effectively, which facilitates reading, and also makes it clear at once that his views are liberalist, being a plea against *dirigisme*. This book is 'campaigning', something a professional analysis should avoid. For a number of means of development policy, through international trade policies for instance, the arguments are convincing to this reviewer, but for other means they are not. In what follows, some examples will be mentioned.

So far I have described model building as one operation carrying out four consecutive tasks. In practice, the operation is so complicated, the number of variables and relationships is so large, that the principle of successive approximations has to be applied. In the main application, planning an optimal development policy, a fifth task, this is known as 'planning in stages' and three stages are often used. To begin with, a macro policy is designed, which is followed by a meso or middle stage and is completed by a micro stage. The macro stage deals with national variables: national income, national consumption and investment, imports as a whole and exports, all in volumes and in money values, as well as a number of other national totals or averages. The meso stage deals with branches of industries and geographical sub-divisions (states, provinces or similar units). Finally, the micro stage deals with projects. By feedbacks the various stages are made consistent.

Since a policy needs to be planned, our interest is concentrated on aims and means of socio-economic policies. The aims may be formulated in general terms, such as maximum welfare, or may be specified by some important components of welfare, or restrictions, namely employment, price level, balance-of-payments surplus and volume of investment. The means may be such variables as public expenditure, the wage rate and direct and indirect tax rates.[9]

The number of means to be used may be small or large. Those believing in 'the invisible hand', or *laissez-faire*, prefer a small number. Mr Lal is one. At the other end of the scale we have the centrally-planned economies. In between, there are the interventionists or '*dirigistes*', who Mr Lal is fighting. Most present-day governments rightly feel that not everything can be left to market forces; and interventions, such as a social security policy and environmental protection, are widely accepted.

The aims may be, openly or in a more hidden way, the welfare of some ruling élites or an attempt to maximise welfare of all, including even some form of equity, often specified in terms of an income distribution. The mathematical form given to such aims shows a great diversity and Professor Little rightly mentions the tendency of linear programming models to produce extreme values of the means which then have be counteracted by setting some limits derived from practical intuition.

One form of intervention correctly criticised by both Mr Lal and Professor Little is protection. Right now, in the state of stagnation, governments unfortunately can hardly avoid to yield to the powerful pressures exerted on them.

So far national policies have been discussed. Among the public authorities of today's world they are by far the most powerful. National feelings are exceedingly strong. They are also an enormous potential danger to the welfare of mankind. Clearest of all is the danger of militarism, fed by nationalism, but in socio-economic matters nationalism also constitutes a tremendous danger. Grotesque examples are supplied by the nationalism of very small nation states, to be found in the Caribbean as well as in the

Pacific, most of whom will only survive if they integrate — which few of their governments understand.

The need for more integration has been understood by a few large federal states, especially the United States and the Soviet Union. It has hardly been understood by West Europeans. A single figure may illustrate the point. The federal budget of the United States, excluding military expenditures, is more than ten times the size of the 'federal budget' of the European Community, of which total income happens to be roughly equal to American income.

Apart from regional integration, the integration of the world economy as a whole, by some means of socio-economic policy, is necessary if the aim of international policies is a maximisation of world welfare and a distribution of welfare which excludes starvation and disease.

In this reviewer's opinion, the preceding implies that in many respects the 'new international economic order' (NIEO) is closer to this aim than the present order, that which was established after World War II.[10] Mr Lal and Professor Little are sceptical. But the latter takes a clear stand when advocating that new special drawing rights (SDRs) on the International Monetary Fund should be made available to the International Development Association (IDA), the soft-loan affiliate of the World Bank. Both authors, however, reject the Multi-fibre Arrangement, one of the worst examples of protectionism by the developed countries of Western Europe and North America. Another advocate of the NIEO is the Brandt Commission (officially the Independent Commission on International Development Issues) which reported in 1980 and 1983.[11] These reports may be professionally less rigorous than the three books under review. But then it should be recognised that professional rigour (i) does not prevent the coexistence of the rather different opinions of Mr Lal and Professor Little and (ii) is less scarce than the political will to improve world welfare and reduce inequality.

The type of model around which this article is treating the subject of model building has been enriched in various ways, for instance with elements of an environmental conservation policy.[12] In addition, alternative methods of organising the use of models by policy makers have been developed, for instance by a stepwise dialogue between model builders and policy makers, in order to avoid the use of terminology which is not always clear to policy makers. In brief, planning techniques are subject to continual revision, so as to improve their practical use; and in the future that use may be less of a 'failure' than seen by Professor Little. Whether Mr Lal can be convinced of the use of some *dirigisme* is more doubtful.

Among the contributors to the Lewis *festschrift* several are themselves closer to this reviewer's preference. This is reflected in some of the titles of their essays and in their classification (for instance, the econometric contributions); but it is also reflected in the interesting historical surveys of Sir Alec Cairncross, Dr Reynolds, Professor Diaz-Alejandro and Professor Little). Albert O. Hirschman comes closest to the two other books in his essay on the 'Rise and Decline of Development Economics'. This reviewer does not see a decline. An accumulation of experience on a subject whose urgency is still increasing seems to him inconsistent with the concept of decline.

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1. Arie Kuyvenhoven, *Planning with the Semi-input-output Method* (Leiden and Boston: Martinus Nijhoff, 1978). The essence of the method is to draw a conclusion from the distinction between tradeables and non-traded goods. Non-traded goods that are needed for a new industry or project must be produced in the country under consideration, whereas tradeables need not be: they can be imported. This implies that costs in a cost-benefit analysis are different from costs based on the assumption that all additional inputs have to be produced inside the country.
2. Paul Rosenstein Rodan, 'Problems of Industrialization of Eastern and South Eastern Europe', *Economic Journal*, June-September 1943.
3. Gunnar Myrdal, *Asian Drama: an Inquiry into the Poverty of Nations* (New York: Twentieth Century Fund, 1968; and Harmondsworth, Middlesex: Penguin Books, 1968).
4. W. Arthur Lewis, 'Economic Development with Unlimited Supplies of Labour', *Manchester School*, Vol. 22, No. 2, 1954.
5. T.W. Schultz, *Transforming Traditional Agriculture* (New Haven: Yale University Press, 1964).
6. *Employment, Growth and Basic Needs: a One-world Problem* (New York: Praeger, for the Overseas Development Council, in cooperation with the International Labour Office, 1977).
7. See Ferix Paukert, J. Skolka and J. Maton, *Redistribution of Income Patterns and Consumption*

and Employment: a Case Study for the Philippines, WEP Project 2-23, Working Paper No. 3 (Geneva: International Labour Office, 1974) and Paukert, Skolka and Maton, *Income Distribution by Size, Structure of the Economy and Employment: a Comparative Study for Four Asian Countries*, WEP Project 2-23, Working Paper No. 72 (Geneva: International Labour Office, 1979).

8. Examples of some interest are the following. (i) The Dutch multinational enterprise Philips Gloeilampenfabrieken has a pilot factory in Utrecht where alternative technologies are being tried out which may be more appropriate for its operations in developing countries. (ii) In Jan Tinbergen *et al.*, *Reshaping the International Order*, a report to the Club of Rome (New York: E.P. Dutton, 1976), some arguments against the existing international economic order are offered, which deserve to be discussed. (iii) In the Netherlands a proposal was for a better method of financing the purchase of building materials for self-built houses in slum quarters was published. See N.O. Jorgensen, *Housing Finance for Low-income Groups* (Rotterdam: Bouwcentrum, 1975).

9. See 'Problem 162' in Tinbergen, *Economic Policy: Principles and Design* (Amsterdam: North-Holland, 1967), which has been taken as an example in the present article.

10. See Tinbergen *et al.*, *Reshaping the International Order*, *op. cit.*

11. The reports of the Independent Commission on International Development Issues are as follows: *North-South: a Programme for Survival* (London and Sydney: Pan Books, 1980); and *Common Crisis, North-South: Cooperation for World Recovery* (London and Sydney: Pan Books, 1983).

12. See Peter Nijkamp *et al.*, *Environmental Policy Analysis: Operational Methods and Models* (New York and Chichester: John Wiley, 1980).

SOCIAL CLAUSES AND INTERNATIONAL TRADE, by Göte Hansson (London: Croom Helm, 1983; and New York: St Martin's Press, 1983) 198 pp., £12.95 and $25.00.

RESURRECTION OF THE PAUPER-LABOUR ARGUMENT, by Deepak Lal, Thames Essay No. 28 (London: Trade Policy Research Centre, 1981) 82 pp., paperback £2.00.

Poor countries used to be hewers of wood and drawers of water for the rich countries. That situation has dramatically changed over the past couple of decades for the Third World as a whole. Excluding oil, more than half the exports of developing countries to the industrial countries now consist of manufactured products rather than traditional, mostly non-competitive, primary commodities.

With the emergence of Third World countries as important suppliers of manufactures, protectionists in the industrial countries are crying 'Unfair!'. It is one thing, in their view, to permit competition among countries with comparable wage rates and working conditions, but it is quite another to allow unimpeded entry of foreign products made by workers whose wages are a pittance and whose conditions of work are appalling in terms of, say, health, safety and the right to organise — hence the recent moves to incorporate labour standards or so-called 'social clauses' into the rules that govern international trade.

However reminiscent it is of the venerable and discredited pauper-labour argument for protection, the case for social clauses, as currently put forward, is more complex. Both authors agree that, in addition to protectionist motivations, advocacy of the incorporation of minimum-labour standards into trade agreements rests on two other arguments: (i) promotion of the social welfare of workers now employed under unacceptable conditions and (ii) strengthening the liberal international trading system by warding off traditional kinds of trade restrictions.

In assessing social clauses in the light of these objectives, the two analyses diverge sharply in their approach. *Resurrection of the Pauper-labour Argument* is a brief monograph in which Deepak Lal, Reader in Political Economy at University College, University of London, dusts off all three rationales for social clauses in lusty polemical style. He sees little merit in any of them and buttresses his argument with a lively philosophical excursion into the nature of human rights.

Göte Hansson's *Social Clauses and International Trade*, a revised version of his doctoral thesis undertaken at the University of Lund, is a more traditional 'academic' work. In a detailed and systematic treatment, Dr Hansson distinguishes types of social clauses and analyses their different effects both in isolation and as substitutes for the more traditional types of trade restrictions. Not unexpectedly, his conclusions on the efficacy of social clauses in meeting the stated objectives are less sweeping than those of Mr Lal. He believes some of them would be