Cost-Benefit Analysis of Foreign Investment Projects: Estimating National Parameters

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The cost-benefit analysis has been first developed and used for public expenditure projects in developed countries.[1] More recently, two integrated methods have been developed in affiliation with international organizations, OECD and UNIDO.[2] Both methods present an integrated framework that can be used by project planners in LDCs. In both methods, various effects are expressed in one numeraire, which eliminates to an extent the problem of adding apples and oranges together. Two methods are somewhat different in specifics and emphases placed, but are supposed to result in the same ranking of projects.[3] We will follow in general the UNIDO guideline. Our objective is to derive the method that can be used to evaluate foreign direct investment (FDI) projects. The social cost-benefit analysis framework, together with the usual private discounted cash flow analysis, will provide a valuable tool to analyze many problems arising between foreign investors and host governments. In this paper we are interested in developing methods of estimating "national parameters," which are defined to be applicable to all projects in a country during a reasonably long period of time. Ideally, national parameters should be given to individual project analysts by a higher governmental planning office. However, in many countries where national planning and project evaluation procedures are not well established, a project analyst may have to start with whatever best estimates he can come up with.

In the following we discuss two national parameters: shadow exchange rate and social discount rate. For each parameter the existing literature was searched to identify a wor-

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1) For surveys of the literature in this context, see A.R. Prest and R. Turney, "Cost-Benefit Analysis: A Survey," *Economic Journal*, Dec. 1965, and E.J. Mishan, *Cost-Benefit Analysis: An Introduction*, New York: Praeger, 1971.

2) The OECD method is presented in I.M.D. Little and J.A. Mirrlees, *Project Appraisal and Planning for Developing Countries*, New York: Basic Books, 1974, and the UNIDO method in P. Dasgupta, et al, *Guidelines for Project Evaluation*, New York: United Nations, 1972.

3) For the comparison of two approaches, see Deepak Lal, *Methods of Project Analysis: A Review*, Baltimore: Johns Hopkins University Press (for IBRD), 1974.

kable and conceptually sound method. It turned out that what we arrived at was closest to the UNIDO guideline. At this point, we are not concerned with distributional weights. The inclusion of distributional parameters should be determined after considerations are made regarding a government's goals in terms of investment and income distribution and the availability of necessary information. Without going into pros and cons of including distributional considerations, we note that it is a matter of practicality, not of principle, that we at this point exclude those considerations. Each section in the folowing will be concluded with the application of the recommended methods to Korean economy around the end of 1974.

We do not fully discuss here the third national parameter: shadow wage rate. If we are not concerned with distributional goals and further not with the cost of extra effort, "production foregone elsewhere" can be used as shadow wages for unskilled workers. For many capital-intensive projects, the proportion of wages to unskilled workers out of the total cost may be too small to affect the net social benefit of the project. In other cases, it will still be necessary to evaluate the labor market carefully. The "surplus labor" situation alleged in many countries may not in fact exist to the extent that the opportunity cost is close to zero.

Shadow Exchange Rate

One of the most important shadow prices in project evaluation is a "shadow price of foreign exchange" or "shadow exchange rate." In the long run, the shadow exchange rate should be the same as the equilibrium exchange rate, which in turn can be defined as the exchange rate that would yield balance of payments equilibrium over a period of time. As discussed by Officer (1976, p. 2), this definition assumes "the absence of special policies to avoid balance of payments disequilibrium." Special policies include monetary and fiscal restraints, trade distortions and restrictions on capital flows. If one or more of these policies exist over an extended period of time, it would be difficult to determine the equilibrium exchange rate.

In the short run, an equilibrium exchange rate would be the one that exists under a freely floating exchange rate system. Although a shortrun equilibrium exchange rate would fluctuate due to various real and monetary changes in the economy, it will tend to approach the long-run rate in the absence of restrictive policies mentioned earlier. When

one or more of these restrictions exist, a short-run rate will tend to diverge from the long-run equilibrium rate.

For project evaluation purposes, the "right" exchange rate would be the one that reflects an opportunity cost of foreign exchange in the long run. In practice, however, it is far from easy to determine what the long-run equilibrium rate is. More true this should be, the more restrictions there are in the foreign trade and foreign exchange market. In many LDCs where the industrialzation is pursued through import substitution under protection and/or subsidized exports, trade distortions are commonplace. With trade distortions come an overvalued domestic currency and foreign exchange controls. Assuming that we arrived at an exchange rate after making adjustments for trade distortions from an official rate, would this rate be close enough to the equilibrium rate?

Apparently, most authors writing on the project evaluation seem to accept this rate as a reasonable estimate. It should be noted, however, that an exchange rate reflects other distortions in the economy as well. For example, a restrictive economic policy such as an incomes policy certainly affects the exchange rate. One method which takes into consideration of the restrictions other than trade distortions is the purchasing power parity (PPP) doctrine, to the extent these restrictions are reflected on the domestic price level. As will be further discussed later, however, the PPP doctrine is also only a partial explanatory model of exchange rates.

Even if we confine ourselves to adjustments for trade distortions (assuming a given domestic economic policy), a project evaluator should inevitably ask the question of "what is the most likely picture of trade restrictions over the life of the project?" The answer to this question, or the assumption one makes about the question, is one of fundamental bases of different evaluation methods. One can go as far as to say there is an infinite number of shadow exchange rates. Balassa and Schydlowsky are quoted here to that effect:

> ...we can define the equilibrium exchange rate with respect to the economic policies actually followed. Unless there is an unplanned loss of reserves and/or temporary capital movements, the equilibrium rate so defined will equal the actual exchange rate. If, however, one alters the system of protection, or monetary and fiscal policies, the equilibrium rate of cxchange will also change... Thus, for given domestic economic policies, one may wish to inquire what the equilibrium rate of exchange would be in a free trade situation or in the case of a reduction of tariffs

by a certain percentage. (1968, pp. 357-8)

Two methods outlined below are different in that one assumes a free trade situation and the other the continuation of the protection structure. These two methods are then two extremes, and as implied in the quote above there are a number of other possibilities in between. We do not fully discuss yet another alternative method (OECD Manual), because it adopts a different numeráire, namely the world price. Even under this method, one has to face the problem of converting domestic prices of nontradeable goods and services into the world price, and the "conversion factor(s)" used come close to an inverse of "shadow exchange rate(s)." The Manual method recommends estimating different conversion factors for various primary factors and nontraded goods, and this is one characteristic that is not shared by two methods we are about to describe.

Bacha and Taylor (1971) recommends using the following formula in estimating the "equilibrium" exchange rate:

$$\text{BTSER}=r\tau^{1/(1-q)} \tag{1}$$

where $q=D(1+\eta_x)\epsilon_x(\epsilon_m-\eta_m)/(1+\epsilon_m)\eta_m(\eta_x-\epsilon_x)$

D: balance of trade deficit

r: market exchange rate

τ: force of tariff (1+tariff rate)

η_x: price elasticity of export demand

ϵ_x: price elasticity of export supply

η_m: price elasticity of import demand

ϵ_m: price elasticity of import supply

The above formula is based on the assumption of free trade. In other words, the BTS ER is the exchange rate that would exist after trade liberalization. A few other comments should be made about (1) here. Bacha and Taylor defines "force of tariff" as "force of the ad valorem tariff equivalent to all protection given imports (=1+equivalent tariff)." In practice, the authors recommend, "one would use an average of the difference between world and domestic prices to take into account all tariffs, restrictions and prohibitions in estimating the force of the equivalent ad valorem tariff, τ." In this way, quantitative restrictions such as quota can be incorporated into the estimation. In a project

evaluation then, foreign currency values of traded goods will be converted into shadow prices by multiplying them with the SER, while the prices of nontraded goods are taken as the maket prices in the protection situation. As pointed out by Lal (1974B, p. 16), trade liberalization and the subsequent exchange rate change will also lead to a change in relative factor prices. To arrive at correct investment decisions, it will be necessary to determine the factor prices in free trade.

The UNIDO Guideline recommends a different procedure to derive a shadow exchange rate:

$$\text{UNIDO SER}=\sum_{i=1}^{n} f_i \frac{P_i^D}{P_i^{cif}}+\sum_{i=n+1}^{n+h} x_i \frac{P_i^D}{P_i^{fob}} \qquad (2)$$

$$\text{where } \sum_{i=1}^{n} f_i+\sum_{i=n+1}^{n+h} x_i=1,$$

and f_i: "the fraction of foreign exchange allocated to imports of the i^{th} commodity at the margin"

x_i: "domestic currency amount by which each of h export falls in response to earnings of foreign exchange"

P_i^D: domestic market clearing prices of imports and exports, inclusive of tariffs and subsidies

P_i^{cif}, P_i^{fob}: border prices of imports and exports.

The UNIDO SER is the "weighted sum of domestic prices of traded goods divided by a similar weighted sum of world prices, the weights in each case being the marginal changes in imports and exports induced by the project." This formula is then based on the assumption of the current trade policy, not of the free trade policy.

As pointed by the authors, P_i^D and P_i^{cif} (P_i^{fob}) will differ only in the presence of tariffs or other import controls (export subsidies or controls). In this respect, P_i^D/P_i^{cif} comes close to τ in (1). The real difference shows up in deriving "weights" in two cases. While the weights, f_i and x_i, in (2) are shares of marginal imports and exports, the weights used in deriving price elasticities in (1) are shares of a product's exports (imports) out of total exports (imports). In following the UNIDO procedure, it seems in practice difficult to determine a right basket of goods and right weights. As pointed out by Lal (1974

B, p. 19), these difficulties in determining the goods over which the averaging should be done and estimating the weights to be employed to obtain the SER may result in a widely divergent estimate of the SER. These results are to be expected, however, since different goods and weights represent different assumptions about the course of the trade policy and its effect.

It would be fair to say that BT SER and UNIDO SER are more similar than they look. Both procedures basically look at the differences between domestic and world prices to determine the effect of trade distortions on the exchange rate. The difference lies in the assumption made about the course of the government's trade policy, which shows up in the weights used in the formulae. The BT SER makes an explicit assumption of free trade. The UNIDO SER procedure will decide on its assumption after considering the likely course of the trade policy. Two extremes, the current trade policy and the free trade, are possible situations, but it is likely that the actual possibility lies somewhere in between the two extremes. If the extreme assumption of free trade is made, then two alternative procedures will result in the same SER. In this sense, two procedures can be viewed as supplemental, not mutually exclusive alternatives.

So far we have been discussing two methods of accounting for trade distortions in foreign exchange rates. Another way to determine the long-run equilibrium rate is the age-old purchasing power parity doctrine.[4] The PPP theory says that the PPP is the principal determinant of the long-run eqilibrium exchange rate. The PPP between two countries is defined as either the ratio of the countries' price levels (absolute PPP) or the product of the exchange rate in a base period and the ratio of the countries' price indices (relative PPP). The absolute PPP is often used for international comparisons of national income statistics. In applying the absolute PPP theory arises a problem of finding a representative basket of consumption goods. For two countries with divergent production and consumption patterns (such as the U.S. and a small LDC), it would be almost impossible to arrive at a standard basket of goods and services. Furthermore, as most non-traded goods and services in an LDC are labor-intensive and therefore a lot less expensive than those in a DC, an exchange rate (value of foreign exchange expressed in terms of LDC currency) based on the absolute PPP will be in general greater than the official rate.

The relative PPP version overcomes the problem of determining a representative basket

4) For an excellent review of the theory, see Officer (1976). Much of the discussion of this paragraph is derived from the article.

of goods and services.[5] However, there arises another problem of finding a base period. For most LDCs it is almost impossible to find a period when the balance of payment was in equilibrium and at the same time was free from various distorting policies. Therefore, it would be necessary to compute a shadow exchange rate at least once to adjust for trade distortions. Note that when the magnitude and direction of policy distortions remain the same for two periods, the PPP theory can determine a necessary change in the exchange rate if there were no significant structural changes in both economies. For project evaluation purposes, however, the exchange rate computed this way not adjusting for trade distortion effects is not of much use. For these difficulties, we have to reject the PPP theory as a workable procedure to determine a shadow exchange rate.

From the preceding discussion emerge two procedures to estimate the shadow exchange rate. It was pointed out that two methods are different only with respect to the assumptions made about the country's trade policy. To conclude the discussion, let us briefly look at the data requirements of two methods. Both of the methods require obtaining the information about tariffs, export subsidies and other restrictions. Both methods recommend comparing domestic and world prices in order to incorporate the effect of non-traiff barriers. This means a substantial amount of work depending on the number of products included and the ease of obtaining price data. Alternative way would be to estimate average tariff rates and average amounts of export subsidies for different industries. This will be justified when the impacts of nontariff barriers are relatively small. In addition, we will need information about import demand and export supply elasticities in order to derive the BT SER. These again may have to be estimated along different industries. For most LDCs, the data on import and export price elasticities should be expected to be skimpy. It may be necessary to adjust the estimates made for some other countries, even DCs. Alternatively, if UNIDO SER formula is used, it will be necessary to estimate marginal import and export compositions.

Turning now to the application, the official exchange rate of Korea has shown the following changes in recent years:

5) Note that this problem is different from well-known index-number problems. Even under the relative PPP versoin, there are problems related to comparing an index of a period to the index of another period, whose product compositions may not be directly comparable due to quality changes, new products, etc.

Effective from	Basic Official Rate (In Won per U.S. dollar)
1969. 11. 3	304. 35
1971. 6. 28	370. 80
1972. 12. 30	398. 90
1973. 12. 31	397. 50
1974. 12. 7	484. 00

It shows that the devaluation of 21.7% was just made in December of 1974. For our exposition purpose, we will use the pre-devaluation exchange rate.

First, if we make a free trade assumption, the BTSER method will be used. Following estimates are made to be applied to the equation (1):

$D=.652$
$r=397.5$
$x=-\infty$
$m=\infty$
$x=3.0$
$m=-2.0$
$q=-.978$

Since Korea's share of the world trade is very small (less than 1 percent). price elasticities of export demand and import supply can be assumed to be infinite. The other two elasticities are taken from the estimates of Brazil and Chile.[6] The most troublesome problem arises in estimating the "force of tariff" (τ). There seem to be three alternatives to estimate τ. The first and the best way is to compare the domestic prices and world prices for tradeable goods. Another method is to average nominal tariff rates across the board. This method may bring about a meaningless number because of the existence of other trade barriers and because of the difficulties encountered in weighting different rates. The third method is to compare the total import value and tariff receipts. This method does not solve the problem of other trade barriers, especially the embargo widely used by the Korean government. At any rate, the ratio of custom duties to import bills is as follows:

6. See Balassa, et al (1971, p. 345) for Brazil and Bacha and Taylor (1973, p. 143) for Chile.

1970-8.26%
1971-6.31%
1972-6.07%
1973-4.87%
1974-4.65%

And it would be reasonable to assume that these ratios underestimate forces of tariff because of other trade barriers.

Since the first method is not possible at this point because of the lack of data, we make alternative assumptions of the following and derive corresponding shadow exchange rates:

τ value	exchange rate
1.10	416.9
1.20	435.4
1.30	453.2

Alternatively, using the UNIDO method, we immediately run into the problem of information gathering. Using the publicly available information, we could obtain domestic and import prices of 6 commodities which accounted for only 7.6% of total imports in 1974. The following table shows relative prices.

Wholesale and Import Prices of Major Commodities
(1974 average per ton)

Product	Wholesale Price (Won)	Import Price ($)	Total Imports ($1,000)	Implied Exchange rate
Rice	172,175	419.8	153,112	410.1
Barley	73,424	171.6	84,449	427.8
Sugar	310,800	439.4	131,490	707.3
Raw rubber	277,153	790.6	56,718	350.6
Pig iron	52,000	168.7	15,171	308.2
Steel sheets	141,813	268.0	81,505	529.1
Total			522,495	

weighted average of 6 commodities: 496.64
weighted average of 3 consumer goods: 519.92

According to the UNIDO guideline, only consumer goods should be included in the

comparison. Our sample had 3 consumer goods and 3 intermediate goods. Based on our limited sample, the UNIDO SER is estimated to be around 500 Won.

Comparing this to the earlier estimate of BTSER, there is a substantial difference between two methods. It should be again pointed out that our earlier estimate of τ was very unsatisfactory due to the existence of notariff barriers, especially prohibition of many imports. For this reason, we have more confidence on the UNIDO SER. It was shown earlier that the currency (Won) was devalued at the end of 1974. The UNION SER of 496 to 520 may well be within the range of errors of estimation. In this particular example, therefore, we may use the new exchange rate as the shadow exchange rate.

Social Discount Rate

Probably the least agreed aspect of the cost-benefit analysis is the social discount rate, or accounting rate of interest. In fact, the UNIDO guideline recommends treating the discount rate as an unknown and calculating the internal rate of return instead. The LM Manual recommends a method of choosing the discount rate that will match the projects with the total available government investment budget, in effect resulting in ranking the projects by internal rates of return. Hardly a useful approach for our purpose. Other theoretical discussions also stop short of recommending a workable method of estimating the rate.[7]

Conceptually the social discount rate is the value judgment of the society as to relative weights of consumption benefits and costs at different times. Evidently, it is no easy task to arrive at the collective value judgment of how much consumption in Year $t+1$ is worth a unit of consumption in Year t. The UNIDO guideline, along this line of thinking, uses a formula based on two assumptions: "first, that per capita consumption will rise over time and, second, that the marginal social significance (or marginal utility for short) of consumption diminishes with each rise in consumption." (pp. 164-5)

In symbols, the social discount rate (i) can be expressed as

$$i = -v \cdot p \tag{3}$$

7) See, for example, five articles on the topic of the discount rate in Richard Layord (ed.) *Cost-Benefit Analysis*, Middlesex, England: Penguin Education, 1972, pp. 243-332.

where

v: elasticity fo marginal utility with respect to per capita consumption

p: rate of growth of per capita consumption.

It can be seen that Formula (3) is composed of an objective and a normative (judgmental) parameters. The objective parameter, p, can be estimated with reasonable ease. But estimating the other parameter, v, would require some courageous guess work. Notwithstanding this difficulty, Formula (3) gives us some useful insights. The elasticity of marginal utility is defined as

$$\frac{\%\text{ change in marginal utility}}{\%\text{ change in consumption}}$$

and it can be assumed to have a negative sign with the absolute number not readily determinable. Thus Formula (3) shows that the social discount rate is a positive function of the per capita growth rate, given an elasticity of marginal utility. Since expected growth rates are readily available from development plans of many countries, they will provide the first indicator of the discount rate.

Squire and van der Tak adds another variable to the formula:

$$i=-v\cdot p+\rho, \tag{4}$$

ρ being the rate of pure time preference. The rationale for ρ is that the government considers future consumption less valuable than present consumption simply because it occurs in the future. In more practical terms, ρ, another subjective parameter, will make it sure that i remains a positive number even when p is non-positive. The authors go further to discuss the likely values of the parameters.[8] The value of ρ is assumed to fall between 0 to 5 percent on the ground that most governments recognize their obligation to future generations as well as to the present. The authors also give more intuitive explanation to v.[9] The higher $|v|$, the higher the rate of diminishing marginal utility. For example, if $v=-2$, marginal utility is four times higher for the period T with a given level of consumption than for the period $T+n$ with the consumption level twice as

8) The rest of the paragraph and the next one are paraphrasing of Lyn Squire and Herman G. van der Tak, *Economic Analysis of Projects*, The World Bank, 1975, pp. 63 and 109-110.

9) This explanation is based on the utility function: $U_C=C^v$, where U: marginal utility at consumption level C.

high. And if $v=0$, the marginal utility is independent of the level of consumption. For most governments, v would probably center around -1. Values close to zero or -2 may be considered extreme. The following table shows different combinations of parameters and resulting discount rates.

per capita growth rate (p)	parameter of utility function ($-v$)	pure time preference (ρ)	social discount rate (i)
.02	0.5	.04	.05
.02	1.5	.04	.07
.06	0.5	.02	.05
.06	1.5	.02	.11

For a country (such as Korea) with a very high expected per capita growth rate ($p=$ .07) which has an average commitment to income distribution ($-v=1.0$) and an objective of rapid economic growth ($\rho=.01$), the social discount rate would be 8 percent. In general, values for the discount rate may well lie between 5 and 10 percent, but values outside this range are possible.

An alternative view of the social discount rate is to treat it as the minimum required rate of return, or opportunity cost of capital. This concept is analogous to the cost of capital used in the corporate investment decision. If we ignore tax revenues, the rates the government pays to private investors can be used as indicators of the cost of capital. There are two kinds of rates, domestic interest rates and international borrowing rates.

As to domestic interest rates, the long-term government bond rate may be as good as any other domestic rate. There are two qualifications to be made about this rate. First, the inflation expectation should be eliminated from the market rate. Since price and cost estimates are made in real terms, interest rates should also be real rates. It would be difficult to determine what the market expectation of the inflation is. Historical data on price level changes can be used as a proxy for the expectation. Secondly, since net social benefits are, in a sense, before-tax estimates, the government bond rate can be used without any adjustment for taxation. Alternatively, if a country is active in the international capital market, the borrowing rate for foreign loans can be used as another indicator. Again, an adjustment should be made for the inflation expectation.

What we are recommending here is to estimate a few alternative discount rates and come up with a range of rates. For example, for Korea, if we arrived at 4.7%,

5.2% and 9.8% with alternative methods, the range would be, say, 4.7−9.8%. Any project which has a positive net present value with the discount rate of 9.8% will be accepted, and conversely any project which has a negative net present value with the rate of 4.7% will be rejected. Projects which fall in the range should be reviewed more carefully, subjecting them to sensitivity analysis. This approach seems to be superior to the method of simply calculating the internal rate of return, especially when we do not have alternative projects to choose from or a specified investment budget.

REFERENCES

Bacha, E. and L. Taylor, "Foreign Exchange Shadow Prices: A Critical Review of Current Theories," *Quarterly Journal of Economics*, Vol. 85, No. 2 (May 1971), pp. 197-224.

_____, "Growth and Trade Distortions in Chile, and Their Implications in Calculating the Shadow Price of Foreign Exchange," in R.S. Eckaus and P.N. Rosenstein-Rodan, *Analysis of Development Problems*, Amsterdam: North-Holland Pub.,1973.

Balassa, Bela, "The Purchasing Power Parity Doctrine: A Reappraisal," *Journal of Political Economy*, LXII (Dec. 1964), 584-96.

_____, "Estimating the Shadow Price of Foreign Exchange in Project Appraisal," *Oxford Economic Papers*, Vol. 26, No. 2 (July 1974), pp. 147-68.

Balassa, B. and D.M. Schydlowsky, "Effective Tariffs, Domestic Cost of Foreign Exchange and the Equilibrium Exchange Rate, "*Journal of Political Economy*, May-June 1968.

Balassa, B. et al, *Studies in Trade Liberation*, Baltimore: Johns Hopkins University Press, 1967.

_____, *The Structure of Protection in Developing Countries*, Baltimore: Johns Hopkins University Press, 1971.

Beyer, John C., "Estimating the Shadow Price of Foreign Exchange: An Illustration from India, "*Journal of Development Studies*, Vol. 11, No. 4 (July 1975), pp. 302-315

Bos, H.C. et al, *Private Foreign Investment in Less Developed Countries: Evaluation of Some Macro-Economic Effects*, Dordrecht: D. Reidel Pub. Co., 1973.

Bruno, M., "Domestic Resource Costs and Effective Protection: Clarification and Synth-

esis," *Journal of Political Economy*, Jan.-Feb. 1972.

Bulletin of Oxford Institude of Economics and Statistics, Vol. 34 (Feb. 1972), pp. 1-168.

Chakravarti, A., "The Social Profitability of Training Unskilled Workers in the Public Sector in India, "*Oxford Economic Papers*, March 1972.

Dasgupta, Partha, et al., *Guidelines for Project Evaluation*, New York: United Nations, 1972.

Fei, John C.H. and Gustav Ranis, "A Model of Growth and Employment in the Open Dual Economy: The Cases of Korea and Taiwan, "*Journal of Development Studies*, Vol.11, No. 2 (Jan. 1975), pp. 32-63.

Gray, H. Peter, *The Economics of Business Investment Abroad*, New York: Crane, Russak & Co., 1972.

Harberger, A.C., *Project Evaluation: Collected Papers*, Chicago: Markham, 1974.

Lal, Deepak, *Appraising Foreign Investment in Developing Countries*, Heinemann London, 1974A.

_____, *Methods of Project Analysis: A Review*, Baltimore: Johns Hopkins U. Press. 1974B.

_____, "Adjustment for Trade Distortions in Project Analysis," IBRD Economic Staff Working Paper No. 128, Washington, D.C., 1972. [Also in *Journal of Development Studies*, vol.11, no. 1 (Oct. 1974), pp. 55-80.]

Little, I.M.D. and J.A. Mirrlees, *Project Appraisal and Planning for Developing Countries*, New York: Basic Books, Inc., 1974.

Little, I.M.D. et al, *Industry and Trade in Some Developing Countries*, London: Oxford University Press, 1970.

MacDougall, G.D.A., "The Benefits and Costs of Private Investment From Abroad: A Theoretical Approach, "*The Economic Record*, March 1960, pp. 13-35.

Mishan, Edward J., *Cost-Benefit Analysis: An Introduction*, New York: Praeger, 1971.

Officer, Lawrence H., "The Purchasing-Power-Parity Theory of Exchange Rates: A Review Article, "*IMF Staff Papers*, vol. 23, no. 1 (March 1976), pp. 1-60.

Prest, A.R. and Ralph Turvey, "Cost-Benefit Analysis: A Survey," *Economic Journal*, vol. LXXV, no. 300 (Dec. 1965), pp.683-735.

Robock, Stefan H. and Kenneth Simmonds, *International Business and Multinational Enterprises*, Homewood, Ill.: Richard D. Irwin, 1973.

Scott, M.F.G., "How to Use and Estimate Shadow Exchange Rates, "*Oxford Economic*

Papers, Vol. 26, No. 2 (July 1974), pp. 169-84.

Vernon, Raymond and Louis T. Wells, Jr., *Manager in the International Economy* (Third Edition), Englewood Cliffs, N.J.: Prentice-Hall, 1976.

Williams, A., "Cost-Benefit Analysis: Bastard Science and/or Insidious Poison in the Body Politick?" *Journal of Public Economics*, August 1972.