

# Toward Incentive Transfers, Global Tax and Welfare Indices

Jene K. Kwon\*

## I. Introduction

The development experiment during the last three decades have taught us several lessons. First, foreign donors, in general, prefer that the transfers to poor countries be used primarily for the benefit for the recipient countries' poor rather than the rich. Second, the supply of official resource transfers (aid) from the developed countries is so small and varies widely with regard to both size and trend relative to GNP. Third, we need a simple and practical measure of social welfare to make intercountry and intergenerational comparison of welfare.

The major impetus to foreign donors' desire for stronger anti-poverty commitment by the recipient government is attributable partly to general disenchantment with the development experience of the past three decades during which the transfers often went astray, totally failing to aid the intended beneficiaries. An important lesson for the donors as well as the recipients, was that economic growth itself does not necessarily benefit the poor without a conscious effort on the part of the recipient government to improve the condition of the poor.<sup>1</sup> Today, as it was three decades ago, for most of the poor countries the inequality in income and wealth are just as serious a problem as the poverty itself.

\* Professor of Economics, Northern Illinois University, Dekalb, Ill. 60115 U.S.A.

<sup>1</sup> For further discussion of this point, see Ahluwalia and Chenery (1974) and Adelman (1973). Also see Cline (1975) for an extensive survey of the literature on income distribution and development.

On the other hand, the recipient countries, while asking for strong commitment for resource transfers by the donor governments, prefer more autonomy on the use of the transferred resources. Developing countries, protective of their newly achieved political independence, are fearful that stronger voice of the donors may lead to foreign intervention and infringement of sovereignty. This conflict between the two parties necessitates a workable solution.<sup>2</sup>

The search for this solution is especially important in view of declining interest on the part of the donors in assisting the poor in the poor countries. Erik Lundberg (1977) questioned why the supply of official aid from the various development nations is so small and varies so much both in size and trend relative to the GNP of developed economies. He also questioned why the share of official aid is so high in a small country such as Sweden and so small in big countries like the U.S. In fact, the total official development assistance which stood at .40% of the GNP of the Development Assistance Committee (DAC) countries in 1965-67 has declined to .26% in 1971-73 and has stayed at .31% in recent years.<sup>3</sup> (See Table III). In 1975-76 Sweden allocated .82% of its GNP for official assistance, while the U.S. allocated only .26% (See Table IV).

Given the donors' frustration and declining interest, the incentive transfers and tax scheme is an attempt to reverse this trend.

In order to carry out the proposed scheme effectively, it is also essential that we implement a simple and practical measure of welfare which incorporates both the level of per capita income and the equality (or inequality) of income distribution that is suitable for consistent comparison of welfare between countries and between periods.

A scheme of incentive transfers is presented in Section II, a global tax plan is formulated in Section III and welfare indices are presented in Section IV and a summary is given in the last section.

<sup>2</sup> See Cooper (1977) and Bhagwati (1979), Introduction and Chapter V for opposing views.

<sup>3</sup> Also see O.E.C.D. 1977 Review (Development Cooperation), pp. 168-180.

## II. A Two-way Incentive Scheme for Resource Transfers

The proposal consists of two types of the transfers: autonomous and non-autonomous (or incentive). The autonomous funds, say one third of the total transfers, are to be allocated almost unconditionally to the poor countries with minimal supervision by the multilateral aid agency,<sup>4</sup> thus virtually ensuring the recipient governments' right over the use of the funds.

On the other hand, the nonautonomous component of the transfer serves as an incentive device to encourage the recipient countries to reallocate resources in such a way as to improve the well-being of the less privileged members of its society. To be eligible for the incentive funds each country will be required to submit grant proposals; the grant allocations will be made on the basis of, (1) the need of the recipient country, (2) its past performance, and (3) the soundness of the proposal *vis-a-vis* the fund's objectives. The grant proposal should include a strategy including objectives, the means for achieving them, and a timetable for doing so.

The criteria for the incentive funds will be designed to reward countries whose past performance has demonstrated an open and effective commitment to poverty focused strategies. The redistributive effort made will be evidenced by the budgetary record of the recipient countries. In order to ensure maximum effectiveness of the transfer program and a minimum friction with recipients, it is most important for the grant agency to develop specific guidelines which define the objectives of the transfers, and the obligations of the recipients.<sup>5</sup> The grant agency can also serve as a place where problems are examined, and new ideas are discussed.

<sup>4</sup> An argument for a higher proportion of aid to flow through multilateral channels is that it would be easier to launch an efficient and coordinated effort toward development. Currently the IBRD group has accounted for more than half of these multilateral disbursement, UN institutions for another 20-25 percent. The past actions of these multilateral institutions does not necessarily support this view. For example, there is fierce competition between ILO and FAO with regard to the promotion of cooperatives, and between ILO and UNIDO on matters pertaining to industrialization and labor. It follows then that for the multilateral system to succeed the present system of multilateral institutions should be better coordinated through a super agency.

<sup>5</sup> Some of the internal reforms which are likely to have favorable impact on the redistribution of income are: (1) land reform and restrictions on the concentration of financial capital, (2) massive accumulation of human capital which expands the human

The salient feature of the proposed scheme is that it provides a two-way interaction of incentive, that is, between the donors and the recipients. Underlying this scheme is the donor's social welfare function consisting of two arguments; their own income and the income of the poorest 40% of the population in all the least developed countries and some of the less developed countries.<sup>6</sup> This welfare function postulates that the welfare of the donors as a group is positively related to the income (or the consumption) of the poorest 40% of the population. Or, alternatively, one may postulate that the social welfare of the donors is positively related to the degree of equality of income between the lowest 40% and the top (rich) 20% of the population in the least developed economy. From this welfare function, it is possible to derive an "international resource transfer function" of the donors which posits a positive relationship between the amount of transfers to a specific recipient country and the degree of equality in income between the poor and the rich within that country.

Under this scheme the donors' incentive for releasing the resources and the recipients incentive to move closer toward a more balanced distribution of income are linked. It follows then that if the donor countries wish to see a full commitment to strategy on the part of the recipient countries, then they must themselves show willingness to give needed support in appropriate forms. Likewise, the donors must have assurance that the resources made available by them will be used by the recipients as intended.

Under the proposed scheme many of the problems associated with the intergovernmental negotiations will be eliminated, and the recipients' sovereignty over the uses of all the transfers under the autonomous category will be virtually guaranteed. Even the transfers under the nonautonomous category will eventually become quite business-like once the rules of the game are fully established and understood by the participants.

resource base and enhances economic opportunities of the poor, (3) labor-intensive growth strategies to absorb the expanded human resource base, (4) cooperative labor systems which integrate workers into the decision-making process. The potential beneficiaries of the incentive funds include: (1) small farmers, (2) landless laborers and submarginal farmers and (3) the urban unemployed. See Adelman (1973).

6 The World Bank Atlas (1977) classified countries into five categories according to the level of their per capita income: very poor, poor, middle income, rich and very rich.

### III. A Global Tax System

The global tax is solely for development purpose, primarily to assist the poor in the developing countries. The designation "global" symbolizes the need for global effort. The proposed plan calls for: (1) higher ratio of official assistance than the present one; (2) more equitable burden among the donors; and (3) wider diffusion of burden among nations as more new nations reach the threshold per capita income. Until quite recently, the major burden of the assistance was borne by the DAC countries.

It is proposed that the income transfers be financed through an ability-to-pay approach to a voluntary global tax in which the burden of the tax is borne by the developed countries (DC). We recommend a progressive tax system as an ultimate form of the global tax although during the transitional period a proportional tax system with a higher marginal tax rate than the present one may serve as a more realistic alternative.

#### *(A) Progressive Tax as an Ultimate Solution*

The global progressive tax function facing the developed countries under the proposed system consists of two elements, GNP and per capita GNP, where the proportionality of tax to GNP is adjusted for the per capita GNP differential among the tax paying DC's.

$$(1) \quad T_i = t_i Y_i$$

$$(2) \quad t_i = \alpha \frac{Y_i}{\bar{y}}$$

where

$T_i$  = the amount of tax to be paid by the  $i$ th DC

$t_i$  = the variable marginal tax rate for the  $i$ th DC

$Y_i$  = the GNP for the  $i$ th DC

$\alpha$  = the average of the marginal tax rate

$y_i$  = the per capita GNP for the  $i$ th DC.

$\bar{y}$  = the mean per capita GNP for the DC's as a whole

From equation (1) and (2), the aggregate value of tax is

$$(3) \quad \Sigma T_i = \frac{\Sigma t_i}{n} \Sigma Y_i = \alpha \Sigma Y_i$$

where  $\frac{\Sigma t_i}{n} = \alpha$  and  $n$  is the number of tax paying countries.<sup>7</sup>

The tax function represented by (1) indicates that the amount of tax to be paid by a DC depends on its variable marginal tax rate ( $t_i$ ) as well as its GNP. Furthermore, by (2) the variable tax rate in turn depends on two elements: the average of the marginal tax rate ( $\alpha$ ), and the ratio of per capita GNP of the particular DC ( $y_i$ ) to the mean per capita GNP of the DC's as a whole ( $\bar{y}$ ), both of which determine the progressivity of individual marginal tax rate. The advantage of this tax scheme over a proportional tax is that the amount of tax depends not only on the absolute level of GNP but also on the per capita GNP.

It is important that the payer countries be divided into two or more homogeneous groups according to their level of per capita GNP, and furthermore that each group be represented by different tax schedules each with a different average marginal tax rate ( $\alpha$ ) and different mean per capita GNP ( $\bar{y}$ ).

### *(B) Proportional Tax as a Transitional Arrangement*

As a starter it is proposed that the level of taxation be one percent of the GNP of the developed countries including the OPEC nations. The one percent is 0.3 percent point larger than the UN target of 0.7 percent of the GNP of the DC's and approximately three to four times the annual official development assistance of recent years.<sup>8</sup> At least one percent of the GNP of the DC's must be transferred to the poor countries if they are to attain their

<sup>7</sup> From equation (2)

$$\frac{\Sigma t_i}{n} = \alpha \frac{\Sigma y_i}{ny}$$

since  $\Sigma y_i = ny$  we get,  $\frac{\Sigma t_i}{n} = \alpha$

Hence,

$$\Sigma T_i = \alpha \Sigma Y_i$$

<sup>8</sup> The 0.7 percent was recommended by the Pearson Commission (1969) and the Independent Commission on International Development Issues (1980) headed by Willy Brandt. 1% is by no means very high. Alluding to the recommendation by the Independent Commission on International Development Issues (1980) headed by Willy Brandt for the transfer of 0.7% of the income of the developed countries by 1985 and 1% by the year 2000, Gordon Tullock (1981) remarked that; "seldom has such a large mountain labored to produce such a small mouse".

minimum subsistence level of living within a reasonable time period.<sup>9</sup>

We consider two alternative tax bases (a) 1% of the GNP of the DAC countries and (b) 1% of the GNP of the Rich and Very Rich countries.<sup>10</sup>

(i) 1% of the GNP of DAC countries

The question is: What should be the marginal tax rate for the individual members of the DAC? The first consideration in determining the individual share is to determine the ratio in such a way as to equalize the tax burden index uniformly across the countries. This is done in Table I using the 1976 figures. The ratio of tax to GNP is computed in column (1) using expression (2).

Since the average of the marginal tax rate,  $\alpha$ , is assumed to be 1% then:

$$(2') \quad t_i = (1\%) \frac{y_i}{\bar{y}}$$

gives the marginal tax rate for the individual member countries. Given  $\alpha = 1\%$ , the marginal tax rate ( $t_i$ ) for the individual member countries depends on the ratio of the average per capita GNP of DAC,  $\bar{y}$ , and the particular country's per capita GNP,  $y_i$ .

For example, the marginal tax rates required to maintain uniform tax burden rates across the member countries is 1.39% for Sweden and Switzerland; 1.17% for U.S.; and 1.15% for Canada. For the lower per capita GNP member countries, the marginal tax rates would be .51% for Italy, .67% for U.K. and .73% for Japan. GNP per country and the amount of tax are shown in columns (2) and (3) respectively. The tax burden ratio which is uniform across the countries is 1.64 as shown in column (4).

9 Using the 1% tax rate Kwon (1980a, 1980b) simulates a growth and distribution process which incorporates such aspects as: (1) achieving a target pattern of income distribution between the different socio-economic groups, (2) achieving the minimum desirable per capita consumption, (3) narrowing the income gap between the VPC and PC, and (4) finally achieving these goals within a reasonable time period.

10 See footnote 6.

Table I also indicates the critical role of the U.S. in the proposed global tax system. The high marginal tax rate for the U.S. is 1.17 percent and the total amount of the tax to be paid is 17.71

**Table I**  
**HYPOTHETICAL FLOW OF DEVELOPMENT ASSISTANCE OF DAC**  
**IN RELATION TO GNP AND PER CAPITA GNP**

	Marginal Tax Rate, $t_i$ (%) <sup>1</sup> (1)	GNP (1976) $Y_i$ (Billion US\$) (2)	Amount of Tax, $T_i$ (Billion US\$) (3)	Tax Burden Index (4)
Sweden	1.39	69	.96	1.64
Netherland	.98	81	.79	1.65
Norway	1.16	28	.32	1.64
France	1.05	336	3.53	1.65
Denmark	1.16	35	.41	1.65
Belgium	1.05	62	.65	1.65
Canada	1.15	160	1.84	1.65
Australia	1.03	84	.87	1.65
New Zealand	.68	13	.09	1.65
Germany	1.13	425	4.80	1.64
U.K.	.67	228	1.53	1.64
U.S.	1.17	1,514	17.71	1.65
Japan	.73	491	3.58	1.65
Switzerland	1.39	54	.75	1.64
Finland	.93	27	.25	1.65
Italy	.51	172	.88	1.66
Austria	.82	38	.31	1.64
Total	$\Sigma t_i = 17.00$	$\Sigma Y_i = 3,820$	$\Sigma T_i = 38.3$	

Col (1):  $t_i = (1\%) \frac{Y_i}{\bar{y}}$  where  $\bar{y} = \$6,069$ ; see Table IV, Col. (1) for  $y_i$ .

Col (3):  $T_i = t_i Y_i$ ;  $\Sigma T_i$  does not add up to 38.2 because of rounding in Col (1).

Col (4): Tax Burden Index =  $\frac{\text{Marginal Tax Rate}}{\text{Per Capita GNP in Thousands of Dollars}}$ ; the index numbers reflect rounding.



billion dollars, which correspond to approximately 46 percent of the total amount to be paid by the DAC members. Without any doubt the success or failure of the plan depends crucially upon the U.S.'s commitment. The marginal tax rate of 1.17 percent of GNP may seem high when compared with its current average of .26 percent, nevertheless given the U.S.'s level of per capita GNP and its economic potential, 1.17 percent is not totally unrealistic.

(ii) 1% of the GNP of the Rich and Very Rich Countries

Another plan which is more equitable from the donors' standpoint is the one which includes a larger number of countries in the donor circle thus broadening the tax base. This plan would include all the Rich (per capita GNP, \$2,000 to \$4,999) and Very Rich (\$5,000 and over) countries. The tax bases under the two alternative schemes are shown in Table II. 1% of the combined GNP of the Rich and Very Rich Countries for 1975 is \$49.10 billion which is 30% larger than that of the DAC countries. The OPEC could also make a significant contribution under Plan II.

That the proposed increase in the marginal tax rate is deemed feasible is based on two observations: the proportion of GNP allocated by nations to armaments and the history of European reconstruction under the Marshall Plan.

**Table II**  
TAX BASES FOR 1975

Tax Base	Combined GNP (In \$ Billions)	1% of GNP (In \$ Billions)
Plan I DAC Members	3,744	37.44
Plan II <sup>a</sup> Rich and Very Rich Countries	4,190	49.10
Plan II <sup>b</sup> Rich and Very Rich Countries Excluding the Soviet Block Countries	4,053	40.53

(C) *The Reduction in Armaments as a Source of Developed Assistance*

Table III compares the resources which the developed countries devote to military expenditure and the resources which they devote to official development assistance. The bill for military expenditure was on the order of 5.9 to 6.6 percent of GNP in the 1971-73 period as compared with .26 percent of GNP for development assistance during the same period, thus revealing a ratio of roughly 1 to 25 between the two. The importance of a reduction in armaments as a potential source for the transfer of resources to the developing countries lies in this lopsided disparity between the two expenditures. The idea for reducing armament expenditure and linking this reduction with an increase in development assistance is not new. In fact at its twenty-ninth session, the UN General Assembly received a report from the Secretary-General under the title, "Reduction of the Military Budgets of State Permanent Members of the Security Council by 10 Percent and Utilization of Part of the Funds thus Saved to Provide Assistance to Developing Countries." Should this proposal materialize, the 10 percent of the military funds transferred for development purposes will certainly go a long way toward increasing the current

Table III

ESTIMATE OF THE SHARE OF GNP DEVOTED TO MILITARY EXPENDITURE AND TO OFFICIAL DEVELOPMENT ASSISTANCE

	1962-64	1965-67	1968-70	1971-73
To Military Purposes				
ACDA Estimate	8.7	7.9	7.7	6.6
SIPR Estimate	7.8	7.2	7.2	5.9
Total Official Development Assistance	.40	.35	.29	.26

Sources: *World Armaments and Disarmaments SIPRI Year Book, 1975*, *Development Cooperation, Efforts and Policies of the Development Assistance Committee, 1973 Review* (Paris OCED, 1973)

level of total official development assistance by bringing it to a new level of 0.9 percent of the GNP of the DC's, leaving the remainder to be financed through other sources.

*(D) Status of DAC Assistance Activities*

In many respects the current need for development assistance is as urgent as it was in the case of the postwar relief (1946-48) and the European reconstruction under the Marshall Plan (1949-52). Between 1946 and 1948 total U.S. economic aid as a proportion of GNP was roughly two percent. Although a cir-

**Table IV**

**NET FLOW OF OFFICIAL DEVELOPMENT ASSISTANCE OF DAC  
IN RELATION TO GNP AND PER CAPITA GNP**

DAC	Per Capita GNP in US\$ (1975) (1)	Aid as Percentage of GNP (1975-76) (Average) (2)	Aid Burden Index (3)	Ranks by Aid Burden Index (3)
Sweden	8,460	0.82	.97	4
Netherland	5,950	0.79	1.33	1
Norway	7,060	0.69	.98	3
France	6,360	0.62	.97	4
Denmark	7,010	0.58	.83	8
Belguim	6,350	0.55	.87	7
Canada	6,990	0.53	.76	10
Australia	6,240	0.52	.83	8
New Zealand	4,120	0.48	1.17	2
Germany	6,870	0.40	.58	11
U.K.	4,070	0.37	.91	6
U.S.	7,090	0.26	.37	14
Japan	4,420	0.23	.52	12
Switzerland	8,460	0.18	.21	17
Finland	5,650	0.18	.32	15
Italy	3,080	0.14	.45	13
Austria	4,990	0.14	.28	16
Average ( $\bar{y}$ )	6,069			

cumstances are different today this historical fact serves as an important benchmark for the feasibility of raising the average tax rate to one percent of GNP.

Since the OECD's Development Assistance Committee (DAC) has played a pivotal role in development assistance in the past and is expected to do so in the future, its current assistance activity deserves special attention.

Table IV shows the net disbursement of official development assistance in 1976 by the DAC member countries. The total net disbursement amounted to \$13.7 billion which expressed as a share of GNP is 0.31 percent.<sup>11</sup> Among the donors reporting a higher ratio of official development assistance to GNP during the 1975-76 period was Sweden, Netherland, Norway, France and Denmark. Nations with lower ratios were the U.S., Japan, Switzerland, Finland, Italy and Austria. (See Column 2)

However, a careful examination reveals that the ratio of official development assistance to GNP is an imperfect indicator of the aid burden of the donors. Table IV shows in Column 3 an alternative aid burden index which reflects more accurately the economic burdens of the donors. The development assistant activities of DAC member countries viewed through the aid burden index, depicts a different picture. According to this index, the donor associated with high burden ratios are Netherland, New Zealand, Norway, Sweden and France while New Zealand and U.K. in particular rank considerably higher according to the aid burden index approach than under the ratio of aid to GNP approach, while Denmark and Canada rank lower under the aid burden index. The U.S. ranks low using either approach.

#### IV. Measure of Inequality and Inequality Weighted Income

Traditional measures of the standard of living such as per capita GNP and income distribution such as Gini coefficient fails to take account of the standard of living and the degree of inequality simultaneously. On the other hand, the welfare indices which incorporated both these elements require value judgements

<sup>11</sup> The average grant element is 88.9% of the \$13.7 billion. See *Development Cooperation* (OECD) 1977 Review, pp. 163-214.

generally loathed by economists. However, in a growth-cum-distribution approach to economic development, it is often necessary to make such value judgements explicitly. A summary measure of such (explicit) type enables us to set development targets and monitor development performance not simply in terms of growth of GNP but in terms of the distributional pattern of income growth.

Atkinson (1970) suggested a measure of inequality which incorporates distributional values explicitly. His measure introduces distributional objectives through the parameter  $\epsilon$ , which represents the weight attached by the society to inequality in the distribution.

The formula for Atkinson's inequality index  $I$  is,

$$(4) \quad I = 1 - \left[ \sum_{i=1}^n \left( \frac{\bar{Y}_i}{\bar{Y}} \right)^{1-\epsilon} f_i \right]^{\frac{1}{1-\epsilon}}$$

where

$\bar{Y}_i$  = the per capita GNP of those in the  $i$ th income range  
( $n$  ranges altogether) within a country

$f_i$  = the proportion of the population with per capita GNP  
in the  $i$ th range

$\bar{Y}$  = the average per capita GNP

Values of the  $I$  index represent discount factors applied to the averages per capita GNP in order to arrive at the "inequality weighted average per capita GNP" which serves as a measure of social welfare.

Table V shows three major types of income distribution in the world: low inequality, moderate inequality and high inequality computed from the hypothetical value of the average per capita GNP ( $\bar{Y}$ ) of \$269.<sup>12</sup> The values of the  $I$  index shown in Table VI are derived from the figures in Table V. A value of 0.18 in Table VI means that, given the high equality distribution of income and given the average per capita GNP of \$269 with  $\epsilon = 0.5$ , the inequality weighted average per capita GNP should be 18 percent lower than the \$269, hence the level of social welfare which is 18

<sup>12</sup> Ahluwalia (1974) has classified countries into the three categories in "Income Inequality: Some Dimension of the Problems," Chapter 2, *Redistribution and Growth*.

**Table V**  
**THREE TYPES OF INCOME DISTRIBUTION**  
 (with average per capita GNP \$269)

Types of Distribution	Lowest 40% of pop	Middle 40% of pop.	Top 20% of pop.
High Inequality	10%* \$67**	35% \$235	55% \$740
Moderate Inequality	20% \$135	42% \$282	38% \$511
High Equality	25% \$169	42% \$282	33% \$444

\* Income share in percent

\*\* Level of per capita GNP in U.S. dollars.

**Table VI**  
**I INDEX AND INEQUALITY WEIGHTED AVERAGE PER CAPITA GNP**  
 (with average per capita GNP \$269)

Value of $\epsilon$	High Inequality	Moderate Inequality	High Equality
0.0	0.00* \$269**	0.00 \$269	0.00 \$269
0.5	0.18 \$221	0.06 \$253	0.04 \$258
1.0	0.32 \$183	0.12 \$237	0.07 \$250
1.5	0.45 \$148	0.17 \$223	0.10 \$242
2.0	0.53 \$126	0.22 \$210	0.12 \$237

\* I Index

\*\* Inequality weighted average per capita GNP ( $\bar{Y}_I$ )

percent lower than the one associated with perfect income distribution with  $I=0$ . Given the average per capita GNP, the inequality weighted average per capita GNP,  $\bar{Y}_I$ , as a measure of social welfare can be computed as follows:

$$(5) \quad \bar{Y}_I = \bar{Y} (1-I) = \bar{Y} \left[ \sum_{i=1}^n \left( \frac{\bar{Y}_i}{\bar{Y}} \right)^{1-\epsilon} f_i \right]^{\frac{1}{1-\epsilon}}$$

Given  $I=0.18$ ,  $\bar{Y}_I = \$269 (1-0.18) = \$221$ . The inequality weighted per capita average GNP figures computed from Table V for different values of  $\epsilon$  are also given in Table VI. Note that the distributional parameters,  $\epsilon$ , represents the weight attached by the society to inequality in the distribution. It ranges from zero, which means that society is indifferent about the distribution, to infinity, which means that society is concerned only with equal distribution. Given the income distribution, the value of equality weighted average per capita GNP depends on the size of  $\epsilon$  as shown in the table. For  $\epsilon=0$ ,  $\bar{Y}_I$  for all three distribution is identical to the average per capita GNP of \$269. As  $\epsilon$  increases the gap between the actual average per capita GNP ( $\bar{Y}$ ) and the inequality weighted average per capita GNP ( $\bar{Y}_I$ ) widens further.

## V. Summary

According to the World Bank account of 1975, roughly 24.6% of the world population lived in the Very Poor Countries that had average per capita GNP of \$140 per year, and the poorest 40% within these countries had per capita income below \$50. The problem of solving this extreme poverty is enormous and complex. The present paper is a modest attempt toward solving this problem.

The study put forth a scheme of incentive transfers and global tax. The purpose of the incentive transfer approach is to reverse the trend of declining interest on the part of the donor countries in assisting the poor in the less developed economies. Since donors' declining interest is, to a great extent, attributable to their disenchantment with the past performance of the transferred funds which often failed to aid the intended beneficiaries, the proposed

incentive scheme takes due account of the donors' preference that the transferred funds be used to help the poor rather than the rich in the poor countries.

As a tax scheme we propose a proportional tax as a transitory arrangement while recognizing a progressive tax system as the ultimate form. The proposed tax system creates a higher tax rate, 1% of GNP of the developed countries as opposed to .31% in recent years, and more equitable distribution of tax burden among the donor countries. It also provides for a wider tax base in the future as more countries join the donor circle. The proposed higher tax rate is predicated upon the implementation of the incentive transfer scheme. The higher tax will reflect higher level of international cooperation which can be made possible by the incentive transfer system.

We have also proposed indices of social welfare which incorporate the level of income as well as the distribution of income to facilitate intercountry and intertemporal comparison of social welfare. In order to compare and evaluate each recipient country's anti-poverty effort, we need a simple and practical measure of growth with distribution.

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