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On the (Social) Elasticity of Marginal Utility from One-Period Consumption

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ECONOMIC GROWTH CENTER

YALE UNIVERSITY

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CENTER DISCUSSION PAPER NO. 31

ON THE (SOCIAL) ELASTICITY OF MARGINAL UTILITY
FROM ONE-PERIOD CONSUMPTION

Anisur Rahman

June 15, 1967

Note: Center Discussion Papers are preliminary materials circulated to stimulate discussion and critical comment. References in publications to Discussion Papers should be cleared with the author to protect the tentative character of these papers.

I

"The settlers' town is a strongly-built town, all made of stone and steel. It is a brightly-lit town; the streets are covered with asphalt, and the garbage-cans swallow all the leavings, unseen, unknown and hardly thought about. The settler's feet are never visible, except perhaps in the sea; but there you're never close enough to see them. His feet are protected by strong shoes although the streets of his town are clean and even, with no holes or stones. The settler's town is a well-fed town, an easy-going town; its belly is always full of good things. The settler's town is a town of white people, of foreigners.

The town belonging to the colonized people, or at least the native town, the Negro village, the medina, the reservation, is a place of ill fame peopled by men of evil repute. They are born there, it matters little where or how; they die there, it matters not where nor how. It is a world without spaciousness: men live there on top of each other, and their huts are built one on top of the other. The native town is a hungry town, starved of bread, of meat, of shoes, of coal, of light. The native town is a crouching village, a town on its knees, a town wallowing in the mire. It is a town of niggers and dirty arabs. The town that the native turns on the settler's town is a look of lust, a look of envy..." (Fanon)

The year 2000 is only 33 years away. That is the year we hope to retire, and it can serve as a useful horizon for viewing the terrible problems of the underdeveloped world and the possible role for Canada.

The prospects for the world in our time are not good. It is in the context of a bleak picture that Canadians must choose and act. It is likely that at the outset of the 21st century the number of people living in poverty will be as much as double the current number. We have few illusions about what Canada will be willing to do. We suggest policies that are possible even if not probable. Even a small power, if it understands the situation, can do something to help, and in some cases, this can even be done with little cost and great benefit to itself.

There is a conflict of interest between the first and third world. Canada has a choice between being a middle power in the first world or making a heroic effort to transcend this conflict. It can do this by providing wider options for underdeveloped countries. Canada cannot by itself solve the problems of the underdeveloped world, but it can contribute to an environment in which

the underdeveloped countries have a chance to help themselves.

The underdeveloped countries do not have much scope for independent action. Their resources are too limited. Still, they do not do as well as they might. They inherit from their past, and from their colonial experience, institutions unsuited to their present problems.

In Canada, it is will rather than ability which is lacking. We are on the threshold of a new era where our own basic problems of food, clothing and shelter can be solved, by old standards, at least. The material base provides the opportunity for new initiatives. There is the possibility for experiment.

Surprisingly, there is a new significance in small units. It is, for example, at the level of the city that we now face the important questions of how we live, walk, eat, work, learn, sleep and pray. And recent Canadian experience shows that the most vigorous quest for a life style occurs at the provincial, not the national level.

At the international level, independence for Canada is only meaningful in relation to the great issues the world now faces. For our lifetime the problems of the underdeveloped countries will intensify, and though we try to ignore them, we can do so only by sacrificing part of ourselves. "There are no innocents and no onlookers. We all have dirty hands." (Fanon)

II

The facts about world poverty are well known.¹ They are publicized and repeated from the most respectable sources--but like the death statistics of great disasters, they are beyond comprehension. Nevertheless, it is worth repeating them, because they are to be with us for the foreseeable future, perhaps with increasing horror.

Such a recitation of the crude facts must include the information that:

1. At current growth rates, the gap between the poor and the wealthy nations increases steadily; in the rich countries rapid and steady technological change provides the main impetus for growth while the underdeveloped countries have the greatest difficulty in absorbing the technology that already exists. "In the rich countries average income per head is going up about \$50 a year, in the poor countries by about \$2.50 a year and in the very poor countries by about \$1.50 per year."² The gap for the poor between what they do and the potential provided by modern technology grows each year.
2. Within the poor world, the more prosperous nuclei are not growing fast enough to lower the absolute number living in rural poverty. Growing pools of unemployment are the result.
3. Population growth has become such that it is becoming more difficult to meet even minimal requirements of bare existence.
4. Even if growth rates of 6 per cent per annum were achieved--well in excess of past average performance and even greater than the objectives of the U.N. development decade--by the end of this century the per capita income of the poor countries would still be dismally low--perhaps only \$100 per capita in India and in some African countries, for example.

Economics is again the dismal science.

III

Typically, these facts are introduced as a prelude to charitable instincts; we parade the poor and pass the plate. That little comes of this is perhaps to be expected. On the domestic scene very few of our deep-seated social or economic problems have been solved by an appeal to predominantly charitable instincts. The amounts generated are inevitably small and their allocation is more closely tailored to the tastes of the donor than the needs of the recipient.³

In the development of the first world, primary reliance has been placed on the private initiative of businessmen to mobilize resources for capital formation and technological change. The government has acted to help business and to ameliorate some of the more serious dislocations resulting from industrialization, but by and large has not played an initiating role except for overhead capital. There is little reason to expect the government to do abroad what it does not do at home. It is more in line with our history that governments look at their aid programs as handmaidens to the private business sector (their own or those abroad) rather than as the main vehicle of growth. Even if the government wished to do otherwise it has little scope because it is not government but our private corporations that possess the capital, technology and enterprise that are so badly needed abroad. If such institutions can be little influenced even at home, it is hardly surprising that they cannot be mobilized for public purposes abroad.

The total volume of world aid, after a period of rapid growth, has stagnated in recent years.⁴ Since some of what we call aid is not an outright gift but merely a long term loan at interest rates which are low only in comparison with recent market rates, the net free foreign exchange made available to countries on public account is declining, the flow of interest costs and debt repayment out

of the underdeveloped countries offsets a substantial proportion of the gross aid. A number of developing countries have therefore found themselves in severe balance of payments difficulties, to which heavy fixed obligations to service overseas holdings of public debt have made a significant contribution.⁵

Even more serious are private account flows: the reverse flow of earnings and of capital transfer have more than outweighed new foreign investment. The foreign investment which does occur is concentrated in industries satisfying the needs of the developed world, such as the petroleum industry, rather than being directed towards engendering endogenous growth processes within the underdeveloped countries. The lack of donor enthusiasm to provide a long-term finance on soft terms has been combined with an overwillingness to provide short-term loans. Businessmen wishing to sell to the underdeveloped world receive great encouragement from the government through export credit guarantee arrangements for commercial credits and contractor finance. Often these are for precisely the projects which would be rejected in the context of an aid programme. The harrassed bureaucracies of underdeveloped countries accept this form of help. This short-term commercial credit on hard terms creates fixed obligations, sometimes of alarming proportion. Overseas finance in these circumstances creates a resource transfer in the short-term but fairly soon the debt must be repayed, often before the investment yields a return. The underdeveloped countries then must appeal for refinancing and, through virtual international bankruptcy, lose control over their policies to the lending nations, typically through the medium of international agencies.

The Economist's report on the treatment of Ghana provides a case in point (August 6, 1966). The Economist estimated that Ghana's public debt was over one billion dollars and over two-thirds of this total was in debt of average

maturity of six years or less. Their tongue-in-cheek description of the preliminary creditor's meeting of June, 1966, runs:

"Ghana explained its plight to the representatives of 13 western countries, the general reaction was somewhat reserved. The Swiss said, predictably, that debts were debts and they hoped Swiss debts would be paid promptly. The German delegate brought up the question of German property confiscated in Ghana during the war. The Israeli delegate said he hoped Israel would be considered to qualify as one of the underdeveloped countries entitled to uninterrupted repayment. The British delegate said he hoped any stretch-out of repayments would be a "reasonably short one".

The ineffectiveness of aid not only derives from the inadequacy of the net flows and the dangers of excessive international indebtedness, but also results from the character of the aid given.

Politics and development are necessarily interrelated. But the political content of aid programmes is unfortunate, for the distribution of aid is more influenced by the strategic and ideological pre-conceptions of the major donors than by any assessment of the genuine development implications of the political institutions of the recipients.⁶ Since there is no underlying harmony of interest, these differences are critical. Only too often strategic considerations are interpreted in a short-term context, stressing foreign rather than domestic policies of the recipients.

This is perhaps not surprising. Aid, after all, could only have reached the level it has if something more than the charitable instincts had been aroused.

It would matter less if the amount involved were very large. "Client" states of the United States in the Far East have achieved very favourable rates of growth--Formosa and South Korea, for example. If the wealthy countries are willing to take a sizeable enough interest in a country it may well develop irrespective of the other circumstances.

However, no such large flow is likely and effectiveness of the meagre flow is reduced by non-economic choices, sometimes to the point of counter-effectiveness by bolstering regimes alien to development.

IV

Not surprisingly, aid has not worked miracles. Throughout the third world political tensions and conflicts continue and are, if anything, aggravated by growth.

Tragically, however, the frustrations and tensions are not finding their outlet in creative social transformation, but in civil and regional strife with destructive consequences. Programmes of national independence, initially focused against colonial powers, become banners for struggles between groups in the under-developed world. These tensions and conflicts are inevitable. The appeal to increase aid to avoid revolution is both dangerous, because it avoids the reality of the poor world, and dishonest, in that it cannot succeed in any such purpose, at the aid levels which are envisaged. If the prevention of revolution is seen as one of the purposes of aid, it is only too easy to turn to other tools when aid fails to achieve the desired counter-revolutionary purpose.

Seen at the deepest level, the dilemma of aid, both in the form of capital and technical assistance, is that it bolsters the metropolitan influence in the ex-colonial world, when the most profound problems in the recipient countries involve the need to break from certain social, economic and cultural metropolitan influences, no matter how altruistic the motivation of the mother country. Development is made at home.

The answer that is sometimes offered is multilateralism--a popular view in

Canada. But international agencies take on the ideological overtones and cultural assumptions of their major sponsors. This is certainly true of the World Bank, for example, with its American-Anglo ambience. Even when international agencies develop views and interests which are not too tied to the foreign policy objectives of a major country, multilateralism is only satisfactory as an addition to the constellation, rather than as a consolidation and replacement for other aid sources. In the end, individual underdeveloped countries are better off when faced with a number of parties on the other side of the table in international financial negotiations. "When thieves fall out, ...".

It is very important for poor countries to have a range of choice, so that the consequences of breaking with one source of support is not necessarily disastrous.

Effectiveness of aid is also reduced by policies which use aid programmes as a tool of trade policy.⁷ The now prevalent practice of tying bilateral aid to imported goods from the donor (even the U.S. is now forced in this direction by her chronic balance of payments problem), warps the design of plans and projects, reduces the real value of the aid flow, and has undesirable effects on the evolution of trade patterns by inhibiting trade within the poor world.

In criticizing aid policy there is no intention to imply maliciousness amongst aid agencies, anymore than it characterized the colonial civil service. They are staffed by the most humane of public servants. However, the exigencies of the balance of payments crises in the United Kingdom, for example, have been such that it is hardly surprising that there should have been an attempt to minimize the foreign exchange costs of the aid programme.⁸ Foreign aid supporters are forced to demonstrate to those public servants responsible for the balance of payments situation, or for trade promotion, the consistency of the aid effort

with other public objectives. Only in that way do programmes survive. A necessary result, in a world with chronic shortage of foreign exchange reserves, has been increased tying of aid to the exports of the donor countries, rather than allowing bilateral transfers to generate multilateral trade flows.

A look at the performance of major donors illustrates some of the problems of aid. Both Britain and France remain heavily committed to their traditional imperial interests.⁹ This is especially true in Africa, where programmes of financial aid are combined with the maintenance of elaborate programmes of technical assistance, with the objective of making the transfer of administrations to full local control as painless, and perhaps as slow, as possible. In some countries, government is still dependent on the mother country for recurrent costs. The virtue in these programmes has been to maintain high levels of civil administration where there would otherwise have been the danger of swift deterioration. The cost has been the failure to initiate any great experiments in administrative practice with the achievement of formal independence. The result has been, only too often, the creation of elites who occupy the offices without any noticeable improvement in responsiveness to the country's problem.

Too great an exercise of independence on the part of the new African powers diminishes the flow of aid--this happened abruptly at a very early stage in the relationship between Guinea and France, for example, and has resulted from the recent break between Tanzania and Britain. Again, from the point of view of the donor, the action may not be malicious; it was not surprising, after all, that suspension of a £7 million aid offer should flow from Tanzania's decision to break diplomatic relations with Britain's Labour Government, over the weak British policy towards the Rhodesian rebellion.

Generally, however, both Britain and France have managed to maintain a

considerable degree of influence in previous colonies. In many parts of Africa, the most serious competitor for influence is the U.S.

The United States position is different.

"The United States became involved in international development aid on a major scale principally as a byproduct of the world wide responsibilities thrown upon it as a leader of the Western World after World War II. The size as well as the direction of U.S. aid is an extraordinary blend of humanitarian sentiment and cold war strategy."¹⁰

While Britain and France have been moving from a situation of outright control, back to prepared positions of pervasive but less obtrusive influence, the U.S. has been engaged in the reverse process. The U.S. has asserted dominant and overt influence in many areas over the past decade. Her involvement is carried to the necessary breadth of activity and strength of commitment.

When the United States decides to make a major commitment, the penetration can be pervasive and the effect overwhelming--capital aid, food supplies, economic, political and military advisors, educational support. Such involvement can lead to economic growth, but it cannot be a satisfactory technique throughout the underdeveloped world. In the context of severe social tensions, the tendency is for the United States to identify with conservatives and as they come under attack, the possibility of American military involvement arises. The sequence is not unlike that which in the past has led to the establishment of great empires. But for several reasons, the United States is condemned to create an empire based almost exclusively on an extreme system of indirect rule. This could be most effective in conditions in which there are appropriate indigenous groups who can form effective agencies of U.S. policy. However, too often the only material available is of sorry quality, and might be expected to perform very inadequately as promoters of development. Perhaps, given the inevitability of

American influence, it would be healthier if it performed more directly. There can be little doubt that if American control were directly implemented, and American technology and ideology brought directly to work on the development problems in those regions of current American interest, the effects would be economically more satisfactory than those of the dubious governments they find themselves bolstering.

One view of the dilemmas America faces was set out by Millikan and Rostow in an article in Foreign Affairs in April 1958. We quote at length because their article has proved to be a good prediction of subsequent policy. Rostow has since become the major Presidential advisor on these problems. They comment that

"the building of modern economies and centralized modern governments has been driven along less by the profit motive than by the aspirations for increased national and human dignity."

The American interest in the third world is fundamentally political, as they see it. Countries in the third world are in a transitional phase in which nationalism may turn in varying proportions to three objectives: one, the consolidation of the power of the new state over old regional interests; two, external adventure; three, economic and social modernization. At the time of writing the article, they thought that these strategies were typified by Dien, Nasser, and Nehru respectively.

The third objective is critical because it determines the length of the transition to modernity.

"Communist policy," they note, "is based squarely on an understanding of this precarious transitional process...Soviet diplomacy and propaganda have systematically sought to divert their attention from the tasks of modernization towards 'bloody shirt' policies; that is, an obsessive concern to redress real or believed past humiliations--colonialism, Israel, Kashmir, West Irian, etc.

We are confronted with a systematic effort--diplomatic, psychological, economic and political--to exploit the weaknesses, confusions, and temptations of new nations in the transitional period so as to clamp communism down finally on them before steady economic growth and the political resilience of a modern state emerge."

Faced with this challenge they see

"...the essential objective of American policy in the transitional areas is to use whatever influence we can bring to bear to focus the local energies, talents, and resources on the constructive tasks of modernization."

They identify three propositions

"First, that private enterprise is superior in efficiency to public enterprise, even in the underdeveloped areas; second, that substantial untapped potentialities exist in public policy both for expanding American private capital exports and for increased collaboration between public and private sources of capital; and third, that the American government could do more than it is now doing to create a more favourable climate for private investment in the underdeveloped areas."

They see, however, that too swift returns on their proposed program must not be expected. What is needed is

"...a sense of history and patience...to see us through into the stage when most men and governments in the world come to perceive that private capitalism, domestic and foreign, has an expanding role to play in the new nations capable of reinforcing their larger political and social objectives."

At the conclusion, the writers comment:

"In addition, there remains the challenging and extremely important task of finding a method and an instrument for co-ordinating the economic development programs, now mainly bilateral, within the free world."

A major question for Canada is to examine the degree to which it agrees with this perception of the problem and the remedies proposed.

The major fault of this position is that it grossly oversimplifies the problem of the underdeveloped countries and leads to a form of involvement which is good for neither the first nor the third world. It involves the underdeveloped world in the internal problems of the U.S. and in the conflict between the first and second worlds. Fairly quickly the goal of opening up these countries to private capital and of protecting them from their "weaknesses, confusions, and temptations" becomes the end in itself.

Underdeveloped countries must solve their problems in the context of their

own history. Instead of forcing upon them the myths and conventional wisdoms of other countries, stress should be placed on giving them more room to maneuver. Imported development strategies did not work under paleo-colonialism, and there is not much reason to expect them to work under neo-colonialism.

For the "Third World" one possibility was to manipulate Cold War competition. The existence of a Soviet Bloc might be thought to provide aid and trade possibilities, and to allow the poor countries more maneuverability in their efforts to maintain their freedom from the Free World. That this could be so in practice was indicated by the performance of the U.S.S.R. over the years. The remarkable successes of the Kasser regime may be in part due to the fact that their most severe confrontation with the Free World came in their conflict with Britain and France rather than the U.S. The possibilities of this alternative must not be exaggerated. The Soviet Union has shown no enthusiasm for any great expansion of its role in the less developed world. If anything, it has tended towards increasing caution. Soviet aid has been limited and has been as much attached to the particular export potentialities of the Soviet economy as has the bilateral aid which emanates from the West, and in many cases, a good deal less skillfully applied. Further, the increasing detente between the Soviet and the U.S. in the Cold War must narrow the possibilities of the less developed world in this respect.

China has, surprisingly enough, at times provided generous and sensible finance. Surprisingly, as her own economic situation is no better than that of the countries she has aided. However, the possible material contribution of China must obviously be extremely limited by the urgency of her own needs. The role of China is more likely to serve as an example of the possibility of development without dependence--not in the sense of Maoist revolution, but rather in a more general sense of the possibility of independent action, if backed by sufficient

will and unity over a large enough area.

Thus, in a broad outline, the global context in which Canada must consider its relationship with the underdeveloped world is one in which:

- (i) colonial dependency has ended but independence has not been achieved;
- (ii) the new forms of control may be less effective in engendering development than the benevolent paternalism of some parts of the old colonialism;
- (iii) freedom of maneuver in the less developed world depends partly on the diversity of alternatives in the rich world.

V

A Productive Role for Canada

It is well for small countries not to exaggerate their own importance. They should also recognize that the grand design of world affairs is not exclusively the product of the great powers.

Canada cannot transform the world because of her small size and because the pursuit of policies contradictory to those of the U.S. will involve costs of retaliation and loss of goodwill.

Further, there is nothing in the character of Canadian society which would suggest that if it became a major participant in the communication with the poor countries, it would not eventually develop similar policies and attitudes as the other great powers. It has not, in the West Indies, performed notably differently from other powers.

However, some potentialities exist. Canada, with a gross national product of \$57 billion, commands a greater annual flow of output than the whole of black Africa, or of India. Canada, a midget compared with the North American colossus, still has economic capabilities comparable to major regions of considerable

significance. If Canada ever allocated 1% of her national product to the aid programme as promised in the recent speech from the Throne (instead of one quarter of one per cent in past years), her contribution would be of similar order to that currently made by Britain; when it is also considered that there is a heavy concentration of the American programme in regions of special American interests (particularly those areas in which heavy military aid is provided), it becomes clear that it would be feasible for Canada to maintain a programme in selected regions of the developing world of financial magnitudes similar to those of the existing major donors.

Moreover, Canada has more potential for a flexible programme than governments who have maintained major programmes over the long period. The British are hamstrung by existing and ongoing political obligations. Givers as well as receivers are bound by the past. Britain finds that with a programme stagnant in total size there is very little flexibility to strike out in new directions, even if there is a desire to do so. The lack of traditional commitments, or strongly defined existing interests, makes it possible to conceive of a Canadian aid policy with more flexibility and more attention to the needs of the developing world than would be expected of many other major donors.

If Canada were willing, it could have an impact beyond the immediate effect of the transfers involved. If, for example, Canada stood ready to increase the level of her commitment in cases where the recipient country had fallen foul of other donors, this would strengthen the bargaining position of the poorer countries in their dealings with the other rich countries. The fact that Canada was, for example, able to fill part of the gap following the dismantling of the West German assistance programme to Tanzania minimized the costs to Tanzania of pursuing an independent political policy. Had this alternative not been open

to Tanzania, there would be a depressing effect on other African countries contemplating efforts to assert their political independence.

Such a role will not be easy, especially where major conflicts with entrenched economic interests are involved. As this paper is being written, the Congo-Kinshasa government is engaged in direct confrontation with Union Miniere over the control of the Congolese copper industry. The record of the Union Miniere in the Congo has been a sorry one of subversion and intrigue. In light of recent and past Congolese history, a Congolese government of any repute would wish to assume control over the decisions and gain access to the property of the Union Miniere. Their ability to do so effectively, however, will depend not only on the ability of the indigenous government to withstand incursions of foreign elements into their politics but will also require them to maintain the operation of the industry in the event of the withdrawal of Belgian technical personnel and an internationally organized attempt to prevent access of Congolese copper to world markets. Unfortunately, one suspects that the Belgium government and Union Miniere would be more effective in controlling the sale of Congolese exports than the British government has been in restraining Rhodesian exports.

In a case such as this, if it comes to eventual confrontation, it seems unlikely that Canada would pursue policies openly at variance with those of the rest of the "Free World". Indeed, one sees no special reason to suppose that Canadians would have any desire to do so. The point is that it is Canada's own choice, not her limited resources, which restrain her independence.

Canada will only provide alternatives when the confrontation between poor and rich does not impinge on those interests which the rich share and clearly recognize.

However, short of such confrontations, Canada can also have an effect by

distributing whatever effort she decides to make according to criteria quite different from those of other donors. One set of such criteria could be, for example, based upon the attempt to identify the countries more likely to achieve the maximum development impact. Such criteria would have the virtue, in the Canadian context, of an appearance of neutrality. It is doubtful, of course, whether a simple set of such criteria could be defined; there are also, for example, simple redistributive objectives which might also seem desirable (e.g., famine relief-type motivation).

Provision of aid to those likely to make most effective use of it would provide for patterns of finance quite different from those of other major donors. How far would it be possible for Canada in practice to pursue such a radically neutral course?

A little thought would indicate some difficulties. Could Canada envisage the possibility of providing aid programmes to North Korea, or North Vietnam, for example? This is too extreme for most Canadians, but the dramatic diplomatic achievements of France suggest that independent courses of action are possible.

Possibly, however, the course which could most easily be followed, is for Canada to move in significantly different directions from American-Anglo policy, while avoiding overt challenge. When a developing country begins to pursue policies rendering it somewhat suspect in terms of foreign policies of the "Free World", but has not yet been promoted to the list of public enemies, it might be possible for Canada to extend support without appearing too obviously outrageous.

If Canada were willing to adopt such a role, could it not be argued that her own programmes would contain the same seeds of demoralization which were identified above as the key danger of existing programmes? This is unlikely, for a number of reasons. If Canada sought out those countries who smelt rather bad in the

noses of the other Free World governments, the chances are that the governments concerned would be precisely those who are asserting national autonomy and are least susceptible to cultural demoralization. Secondly, Canada will always enter the scene as an influence slightly different from the previous external influence. U.S. involvement in Africa, for example, often has the beneficial effect in undermining the mystique and cultural influence of the previous colonial power, merely because alternatives are offered, in relation to education for example, which implicitly challenge the assumptions of existing institutions. To some degree Canadian influence would not present the danger of bolstering inherited colonial institutions.

Also, Canada has all the blandness of a prosperous but minor power. Along with Switzerland and Scandinavia, Canada share the characteristics of substantial success in achieving economic well-being along with the absence of Imperial ambition, neither as a contemporary career, nor as an historical inheritance, nor even as a dream of things to come. One has only to talk of a Canadian, or a Swiss empire to realize how ludicrous the idea is. It is the fate of such countries to produce neither revolutions nor empires--but as Switzerland has shown, it is possible for them to become havens both for fugitive funds and refugee politicians. It is possible for them to consider revolutions with equanimity--they are neither likely to be imported nor do they challenge any ambition. It is reasonable to suppose that Canada could mount an aid programme less attached to a set of ideological values than those nations responsible for the world's future. Therein lies the importance of unimportance.

However skillfully Canada uses her aid programme there is an upper limit on the effect that can be obtained from this instrument. We may through clever planning increase the leverage of our aid, but the pressure we can exert is still

limited by the fact that it is unlikely that we will spend much more than 1% of G.N.P., if that. If we want to play a more important role, we must find less costly devices. International trade is one such instrument, since it has the advantage of benefiting both trading partners. An imaginative trade policy will enable us to help others as well as ourselves and without straining charitable instincts.

There can be little doubt that there is much room for improvement in the efficiency with which we trade with the third world; the obstacle is that it would require us to think the unthinkable; to consider policies which every layman knows to be wrong but every economist knows to be right. If, for example, we decided to import certain manufactured goods from underdeveloped countries, they would gain because of the increased market, while we would gain from lower costs. In other words, through trade we can use the production facilities of other countries to supplement our own. At the same time, they can use our specific resources to supplement theirs.

We would have to pay for these increased imports through increased exports and there's the rub. We have been so used to thinking in terms of export pessimism that this problem seems to be an overwhelming one. A little care would show that it is not.

First and most important, there is a severe shortage of food looming on the horizon. Canada could probably increase production of foodstuffs at constant prices much more quickly than underdeveloped countries can. The reason we will have difficulty selling as much as we can produce is that the underdeveloped countries will have difficulty paying for it. If we bought more manufactured goods, we could sell more agricultural products. Clearly, there is a need for a far more imaginative trade-creating policy by Canada than has been the case to date.

There is no need to restrict our thinking to the export of foodstuffs. The underdeveloped countries have an insatiable demand for machinery of all kinds. If Canadian industry used its ingenuity, it could open up large markets for sale to the third world, provided of course, we were willing to buy from it as well.

If these profitable possibilities for trade are not taken advantage of, it will not be because they do not exist, but because Canada has not had enough imagination.

The first requirement would be a willingness to imagine gradual but radical changes in our economic structure. We would give up some of our industries and import these goods from afar. We would therefore gain flexibility, diversifying our trade sources and increasing our independence by loosening certain of our present close ties. Secondly, our comparative advantage would come to depend more on our skills and technology than our natural resource base. The skills of our entrepreneurs and labour could be increased and our "capacity to transform" enhanced.

If we decided on this course of action, new institutions for promoting trade would be needed. Just lowering tariff and other barriers is not enough. One of the most important obstacles to increased trade is inadequate information on marketing opportunities. The present international distribution and commercial system is more suited to the inadequate patterns of trade of the past than to the task of creating new possibilities for the future. Construction of new trade channels requires government as well as private initiative and though it would involve many difficulties, the payoff will be correspondingly high.

In the present context, United States and Europe have not taken advantage of profitable new opportunities, partly because of their political obligations,

partly because they have a vested interest in the existing structure, and partly because they are trapped by their old ideas. Canada could use the opportunities available not only to increase her own trade with the third world, but also to increase trade between other rich countries and the third world. Canada could play an active role as an economic middleman in the international economy just as she prides herself in playing a middle role in the political system. Although a small power, Canada can act as a broker between more powerful interests.

Not only could Canada trade more, she might think in terms of investing more abroad. Canadians are so used to thinking of themselves as a capital-scarce country and a recipient of foreign investment that they have not considered the possibility of reversing the role.

Canada, relative to the world as a whole, is richly endowed with capital, technology, and entrepreneurship. Her long experience with foreign investors could be used to devise new forms, more beneficial to the recipient country than those available at present. Canada could perhaps create a new type of international corporation. Most firms at present are not international but, in fact, have their center of gravity in a particular developed country. Their marketing concepts, personnel policies, and technology are developed in the conditions of the advanced countries and are often ill-suited to more backward countries. These corporations have limited horizons and do not understand the production problems and factor availability in the underdeveloped world. They are very large, few in number, and have great bargaining power vis-a-vis the weak governments of the underdeveloped worlds. As profit maximizing institutions, they use this power fully, often backed up by the political strength of their country. As an example of what Canada could do, consider the effect of the Italian Oil Company, a publicly owned corporation, which for a while challenged the

oligopolistic position of the existing oil firms. It offered better terms, new forms of organization, and gave the underdeveloped country an enlarged set of alternatives from which to choose.

As Dudley Seers points out, small countries facing big companies are in a much stronger bargaining position when there is genuine competition.¹² If it were possible to create Canadian firms capable of independent action in the international economy and willing to upset existing structures, Canadian business might be able to play a creative role.

VI

Canada is small, rich and fits nicely into her niche. Her policies are sober and sensible, in aid as elsewhere. One choice is to continue along established paths.

What does it mean to have an independent foreign policy? If we agree with the policies of the major powers, there is no reason to behave differently. If we disagree, we have some difficult decisions to make.

There is a small bird which feeds by picking food from between the teeth of the hippopotamus; this bird is most expert in judging when hippopotami close their mouths. (Note: One source claims that the story is apocryphal and any applies to a crocodile. No matter!)

Footnotes

¹The basic data are found in the annual world economic surveys published by the United Nation. They are eloquently presented in Chapter II of the British White Paper on Overseas Development: The Work of the New Ministry, and in the article by George Woods, president of the World Bank, "The Development Decade in Balance," in the January 1966 issue of Foreign Affairs. These data have been repeated by nearly every major statesman in the world.

²Escott Reid, The Future of the World Bank, (IBPD, Washington, D.C., Sept. 1965), p. 12.

³Dudley Seers, now Director General of Planning, U.K. Ministry of Overseas Development analyzed current measures of international redistribution as follows: "The machinery is primitive in the sense that it depends largely on the whims of the rich instead of being objectively determined and predictable. Internationally, we are still in the age of charity, with all that this implies, in particular the power by the donor over the receiver." ("International Aid: The Next Steps", The Journal of Modern African Studies (1964), pp. 471-489.

⁴"The crisis in foreign aid" is documented in many sources. See for example Escott Reid's article by that title in the August 1966 issue of The World Today, the monthly review of the Royal Institute of International Affairs, London.

Detailed statistics showing the leveling off of aid and the failure of private capital movements to rise can be found, amongst other places, in Friedman, Kalmanoff and Meagher, International Financial Aid, pp. 12 and 13 and in the 1966 Review by Willard L. Thorp, Chairman of the Development Assistance Committee, Development Assistance Efforts and Policies (OECD, Sept. 1966).

⁵An important study by the World Bank staff, Economic Growth and External Debt, by D. Avramovic et al. (The Johns Hopkins Press, Balto. 1964) highlighted an alarming situation. Their analysis demonstrated that much of the increase in aid in recent years had been flowing straight back in repayments on old loans. They found that debt servicing was growing faster than debt indicating the paradoxical fact that "while lending today is overwhelmingly for developmental purposes in which returns flow over a long period, the maturities have constricted".

They deduce from an analysis of existing debt and debt service "the effective average weighted rate of interest amounted to 4%" and "the average life of outstanding and disbursed loans would be slightly more than 8 years". (p. 107)

They estimate that "debt service obligations of the 74 developing countries... are no less than \$4 billion and could have well reached \$5 billion per annum." (1964)

⁶I.M.D. Little and J. M. Clifford, International Aid, note that "the use of finance in diplomacy has a long history". They briefly trace some of these uses from the Italian Princes in the Renaissance through the modern nation States of Europe in the 19th Century. See also Feis Movements and United States foreign policy in the interwar period.

⁷ Harry Johnson, in his study prepared for the Brookings Institute provides an excellent analysis of the inefficiencies involved in aid giving. Using data prepared by J. Pincus in 'The Cost of Foreign Aid', Review of Economics and Statistics, he shows that the actual cost of foreign aid is much less than the nominal value. Pincus estimates that in the year examined total aid falls from \$7.7 billion to 4.7 billion, i.e., from .83% of G.N.P. of aid giving countries to .52% when adjustments are made for overvaluation resulting from tying and other practices.

⁸ The British White Paper on aid published in mid-1965 set out an accurate and moving account of the magnitude of the problem and included an enlightened statement of British intentions in the aid field. Unfortunately, policy has had to adopt itself exigencies of the day. The Ministry began under the aggressive cabinet leadership of Mrs. Barbara Castle and has slowly lost status and momentum through the successive tenancies of Mr. Greenwood and then Mr. Bottomley, until it was recently demoted from cabinet status.

⁹ "Both Britain and France have for decades been used to, and have developed a machinery for, development aid to dependent territories as an inevitable corollary of imperial power and responsibility."

Friedmann, Kalmanoff and Heagher, International Financial Aid. (Columbia University Press, New York, 1966), p. 45. This source provides a valuable description of aid policies of major donors (except Canada).

¹⁰ Friedmann, Kalmanoff, Heagher, International Financial Aid, p. 42.

¹¹ M. F. Millikan and W. V. Postow, 'Foreign Aid: Next Phase', Foreign Affairs, April, 1958.

¹² See Dudley Seers, 'Big Companies and Small Countries: A Practical Proposal', Kyklos, 1966.

ON THE (SOCIAL) ELASTICITY OF MARGINAL UTILITY FROM ONE-PERIOD CONSUMPTION*

1. Specifications of the social welfare function in recent optimum growth literature recognize diminishing marginal utility from one-period (in continuous-time versions, instantaneous) consumption per capita--henceforth CPC--, a fundamental principle about which there is little disagreement. This implies that the elasticity of marginal utility--henceforth 'e'--from CPC is numerically greater than zero.

In the present paper we suggest another fundamental principle from which it follows that, with independent one-period utilities, 'e' should be numerically greater than unity. A stronger assertion than diminishing marginal utility alone.

This principle is derived from the following question: Imagine CPC in all periods except two to be given. Call CPC in the two periods in question X and Y respectively. Given an initial technology--a function showing the maximum amount of Y given different amounts of X--, and a corresponding social choice of X and Y, how would society revise its choice if a superior technology were available, offering the same absolute amount of X (or Y) but a higher rate of transformation of X into Y (or Y into X)?¹

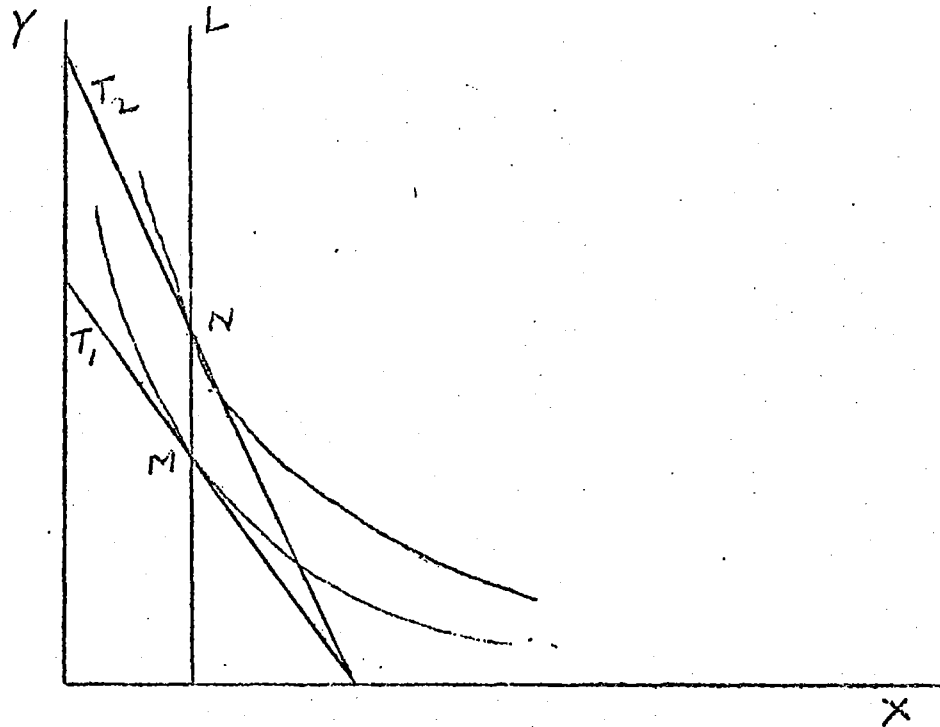
The principle being suggested is that society would like to have more of both X and Y. In other words, it would like to distribute the benefit of the superior technology defined as above among both the "generations" concerned, with positive shares of this benefit to both. This principle, the intrinsic ethical merit of which needs hardly be pointed out, will be called the fundamental principle of temporal equity.

*The author is indebted to Professor J. R. Hicks for comments on an earlier draft of the paper.

In the familiar terminology of consumer theory, the above principle implies that the "commodity" concerned--in this case both X and Y, more generally, CPC-- has a strongly positive "income effect" so as to offset the "substitution effect" that works in the opposite direction when the relative price of this commodity rises with consumer's budget in terms of this commodity remaining unchanged. The term "superior good" is a natural suggestion for such a commodity. We are, in other words, suggesting that CPC be regarded as a "superior good" in analysis of social optimization over time.

2. The implication of this principle may first be seen graphically.²

Let X and Y be represented in the horizontal and vertical axes of a social indifference diagram. Let T_1 and T_2 represent two alternative states of technology. Suppose social optimization with technology T_1 is given by the point M, lying on the vertical line L. If X is a "superior good" defined as above, optimization with technology T_2 must occur at the right of the line L. This requires that the marginal rate of substitution of X for Y (the subjective price at the margin of X in terms of Y)--henceforth $S_{X,Y}$ --at the point of intersection N of the lines T_2 and L should be higher than the slope of the line T_2 . Noting that the X-coordinates of the two points M and N are the same, and the X-intercepts of the lines T_1 and T_2 are the same, it is easy to see that this implies that $S_{X,Y}$, given X, should rise (or fall) more than proportionately to a rise (or fall) in Y. In other words, the partial elasticity of the function $S_{X,Y}$ with respect to Y should be greater than unity.



Mathematically, the above implies that

$$\frac{\partial (S_{X,Y})}{\partial Y} \cdot \frac{Y}{S_{X,Y}} > 1,$$

or

$$\frac{\partial (W_X/W_Y)}{\partial Y} \cdot \frac{Y}{W_X/W_Y} > 1, \text{ where } W(X,Y) \text{ is the corresponding social welfare function (with CPC in all other periods given),}$$

or

$$(Y \cdot W_Y/W_X) \cdot \frac{(W_{XY} \cdot W_Y - W_{YY} \cdot W_X)}{(\bar{W}_Y)^2} > 1, \text{ for any given } X;$$

or

$$W_{XY} \cdot \frac{Y}{W_X} - W_{YY} \cdot \frac{Y}{W_Y} > 1, \text{ for any given } X.$$

In other words, for any given X , the difference between the elasticities of the two marginal one-period utility functions with respect to Y should be numerically greater than unity.

Analogously, Y is a superior good if the same condition holds with the arguments X and Y interchanged.

The above relation holds whether one-period utilities are independent or not. If they are independent, as it has been assumed in all optimum growth studies the author knows of, then $W_{XY} = W_{YX} = 0$. The requirement that X and Y and, in general, CPC, is a superior good reduces then to the condition that $-W_{ZZ} \cdot \frac{Y}{W_Z} > 1$, $Z = X, Y, CPC$. In other words, the elasticity of marginal utility from CPC in each period should itself be numerically greater than unity.

3. Some comments on the celebrated "unsuccessful experiment" of Tinbergen /8/ and the "harsh" conclusions derived by Goodwin /5/ are in order.

Both Tinbergen and Goodwin used values of 'e' less than unity, thus violating the principle suggested in this note. Tinbergen based his choice of 'e'--'v' in Tinbergen's problem in terms of surplus (over subsistence) consumption--as 0.6 on observed market behavior of individuals which is not quite relevant to the problem in question.³ The failure of his experiment, in the sense of failure to provide a meaningful optimum growth path for his infinite-horizon problem and a credible one for his finite-horizon problem, may therefore be attributed to the use of a value of 'e' that cannot be rationalized either on objective grounds--because it was not based on relevant empirical data--, or on subjective grounds--because it violates the fundamental principle of temporal equity. Lacking relevant empirical data, a choice of 'e' has to be rationalized in subjective terms or considered totally arbitrary. If we rationalize it in terms of the fundamental principle of temporal equity, then we know that optimum growth paths would have the more "normal" shape that is actually brought out by Tinbergen's mathematics /Ibid., p. 485/ corresponding to the case where 'v' is greater than unity.

Goodwin's harsh policy towards earlier--and poorer--generations also stands rejected by the same principle. In addition, his conclusion /Ibid., p. 764/ that "To justify robbing of the poor now to pay the rich later. . . . is implied by the enormous productivity of modern techniques", and the even more sweeping one /p. 773/ that "the general prescriptions are not very dependent on the particular assumptions about social valuation. . . ." (italics added) must be regarded as totally unwarranted.⁴ For a higher productivity implies that a smaller sacrifice is needed from earlier generations for any given increase in the consumption of later generations, thus making it possible to increase the consumption of both earlier and later generations from any given amount of initial resources. And a social welfare function that requires that in such a situation both the generations should be given higher consumption, thus implying that 'e' is greater than unity, is a perfectly tenable one and has, it may be claimed, a strong a priori ethical reasoning.

Conclusion

Impressive mathematical strides have been made in optimum growth theory in recent years, but not enough thought has been given to the basic ethical sense of its postulates.⁵ It is however on the strength of the latter that an "optimum" growth path is ultimately to be accepted or rejected as a policy prescription. For this reason it is imperative that the ethical implications of the basic postulates be fully explored and laid bare. The present note is but a modest contribution in this direction.

Md. Anisur Rahman

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and

Footnotes

1. In terms of the diagram that follows, the superior technology is defined to give a higher slope with the same X-intercept of the T-function. In reality a superior technology will give a higher X-intercept also if consumption in all previous periods are to remain unchanged, except if X refers to the period from which the superior technology is available, which may or may not be the base period. The purpose of the present analysis is however to derive a subjective property of the social welfare function, and for this it is irrelevant whether such a technical change, i.e., a technical change that changes only the slope and not the X-intercept of the relevant T-function, actually occurs. Also, it is useful in any case to make an analytical distinction between the "slope effect", as it were, corresponding to a change in the slope only, and the "intercept-effect" corresponding to a change in the intercept only. While consumption of X may increase if a rise in its relative price is associated with a forward shift of the X-intercept of the T-function, the principle being suggested in this paper asserts that it should increase even if the offsetting "intercept-effect" is not present, for a rise in real income is implied by an increase in the slope alone (with intercept unchanged), and it is natural to desire that the benefit from this rise in real income be distributed between both the "generations" concerned.

2. Since the positive income effect ensures an increase in the consumption of the commodity in whose 'favor' relative price changes, the condition that a rise in real income of the type being investigated should result in increased consumption of both the commodities needs only be verified in the case of the commodity which becomes relatively dearer.

3. Tinbergen in any case was working with a grossly overdeterminate model for his estimation of 'v'. The particular value 0.6 that he computed follows only from the specific pair of consumption levels he actually used quite arbitrarily. If one uses other pairs of consumption levels and the corresponding w's from the same Frisch data /4/, quite different estimates of 'v', varying systematically with the choice of the levels of consumption in question, would be obtained. This is true even though Tinbergen's 'v' refers to surplus (over subsistence) consumption: it can be shown from the same Frisch data that he used that his assumption of constancy of 'v' is not borne out by revealed individual behaviour.

4. A similarity with Goodwin's "optimum" paths of investment of "optimum" investment patterns derived with a different approach /3/ has been noted by the authors of the latter approach. The social welfare function used in this latter study is linear (i.e., zero elasticity of marginal utility from one-period consumption), and hence the "optimum" path derived therefrom are given entirely by constraints imposed (arbitrarily) on the growth path; Goodwin's "optimum" path on the other hand is given directly from choice of an 'e' less than unity in a non-linear social welfare function. A comparison of the two resulting investment patterns is not analytically meaningful.

5. Optimum growth theorists have actually tended to disregard strategic assumptions in their analyses and sought to explain unconvincing results in terms of other factors. Chakravarty, for example, explains /1/ the failure of Tinbergen's experiment in terms of the mathematical difficulties of infinite-horizon planning, and takes up finite-horizon planning /2/ in order to "by-pass" these difficulties. Goodwin never explains why he chooses 'e' as less than unity, and explains his unconvincing results in terms of the "enormous productivity of modern techniques"! While it is useful to know what infinite-horizon planning and the enormous productivity of modern techniques imply with 'e' less than unity, it is also pertinent to enquire what it means in deeper subjective terms for 'e' to be less than unity. Such enquiries may reveal insights that may lead to a choice of basic assumptions independent of anticipated results and yet preclude "optimum" paths that might be considered unconvincing.

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