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Working Paper

Project analysis and income distribution notes on the IDB/OECD conference

Texto para discussão, No. 170

Provided in Cooperation with:

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Suggested Citation: Bacha, Edmar L. (1987) : Project analysis and income distribution notes on the IDB/OECD conference, Texto para discussão, No. 170, Pontifícia Universidade Católica do Rio de Janeiro (PUC-Rio), Departamento de Economia, Rio de Janeiro

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Departamento de Economia

PUC/RJ

Julho de 1987

TEXTO PARA DISCUSSÃO

Nº 170

PROJECT ANALYSIS AND INCOME DISTRIBUTION:

NOTES ON THE IDB/OECD CONFERENCE

Edmar L. Bacha

- * A paper prepared for the OECD Development Centre, based on an oral presentation at a joint meeting organized by the Interamerican Development Bank (IDB) and the Development Centre of the Organization for Economic Cooperation and Development (OECD), on "Project Analysis and Income Distribution", held in Paris, from June 26 to July 1, 1987. The views expressed herein are those of the author and do not necessarily reflect those of the OECD or the IDB.

SUMMARY

This papers summarizes and evaluates the discussion on project analysis and income distribution, with special reference to the experience of the Interamerican Development Bank (IDB), in a recent conference, jointly sponsored by the IDB and the Development Centre of the OECD. Discussion proceeded on whether the IDB could and should use poverty-based indicators in its project analysis work. A series of issues were discussed on how these indicators should be designed and deployed. The conference participants felt that the IDB work in this area was very innovative and worth pursuing further.

RESUMO

Este texto sumaria e avalia a discussão sobre análise de projetos e distribuição de renda, com especial referência à experiência do Banco Interamericano de Desenvolvimento (BID), em uma recente conferência, conjuntamente patrocinada pelo BID e pelo Centro de Desenvolvimento da OECD. A discussão centrou-se na questão de se o BID poderia e deveria usar indicadores de pobreza na análise de seus projetos de investimento. Uma série de temas foram discutidos sobre como tais indicadores deveriam ser desenhados e utilizados. Os participantes da conferência concluíram que o trabalho do BID nesta área era inovador e que devia ser aprofundado.

1. INTRODUCTION

This paper is a partial and highly idiosyncratic evaluation of the discussion on project analysis and income distribution, with special reference to the experience of the Interamerican Development Bank (IDB), which was the subject of a conference jointly sponsored by the IDB and the Development Center of the Organization for Economic Cooperation and Development (OECD), in Paris, from June 26 to July 1, 1987.

The focus of the conference was on the use of poverty-based criteria for the analysis of the investment projects financed by the IDB. Different points of view were expressed on the following questions:

* Can the IDB effectively use such poverty-based criteria (as opposed to merely devising them as an intellectual construct, which is something that obviously can be done) ?

* Presuming that the answer to the first question is positive, should the IDB use such criteria in its project investment analysis ?

* Presuming that the answer to second question is positive, how should this be done, both in terms of the general framework of analysis and in terms of possible developments of current IDB methodological procedures ?

The following sections review and evaluate some of the

points of view expressed during the conference on each of these questions. Conclusions are summarized in a final section.

2. CAN IT BE DONE ?

With two caveats, the answer of the conference to the question if the IDB could adopt a poverty-focussed methodology for its project analysis was positive, both because the methodology is already available, and because there is already some practical experience on the use of such procedures, at the IDB as elsewhere.

The doubts about this question related to the actual content of the "objective function" of the industrial country governments, which are ultimately banking the investment projects financed by the IDB, and to the practical feasibility of implementing a poverty-focussed investment project through a banking institution like the IDB.

In relation to the "objective function", or "social welfare function" of the donors, in his paper Albert Berry called attention to the fact that the IDB project analysis work would necessarily be enmeshed with the political economy of aid, and pointed out that:

"Many social scientists would argue that there is no point even in thinking about the income distribution effects of foreign

aid in toto (let alone project by project) when that aid is an integral part of a broader range of political and economic interactions between the industrial countries and the developing ones. In its simplest version, the proposition might be that the industrial countries manage these interactions with a view to extracting benefits from the LDCs while at the same time not exploiting them to the point where social unrest becomes a threat to stability [1]."

In this perspective, introducing poverty-weights in project analysis would be inconsistent with the real objectives of the international sponsors of such projects. Project analysts might obtain the proclaimed poverty-weights in interviews with the policy-makers or by reading their public pronouncements, but they would be only deceiving themselves if they attempted to use such weights to decide among investment projects.

In this context, a more realistic position might be to consider the "social" content of the project as a restriction rather than as an objective to be maximized. By a totally different route, this seems to be the position finally taken by Anandarup Ray in his paper:

"But the final decision could be: "does the project maximize the efficiency net present value subject to the constraint that the social net present value is non-negative ?" Or, as much of the informal discussions that go on tend to suggest, especially

in the context of poverty-oriented projects: "does the project maximize the social net present value subject to the constraint that the efficiency net present value is non-negative" ? If one must use such an approach I would prefer the former variant [2]."

The other restriction on the use of poverty-weights is more practical oriented. Moura Castro, for example, doubted that a big international bank stationed in Washington DC, like the IDB, could ever directly reach the poor in the backlands of Brazil. It would have to operate through a chain of intermediaries, the nature of which would be the main determinant on whether the project was beneficial or not. Moreover, in the process of intermediation, the IDB would probably lose control of the outcome, finding itself in a position which banks particularly dislike. His conclusion is that the anticipated social rate of return, estimated from the cash flows which are the content of cost-benefit analysis, is nearly irrelevant, when compared to the need of developing and maintaining an efficient chain of intermediaries enabling an international organization like the IDB to effectively reach the poor, even if at the risk of losing control of what is going on. Reflecting on the experience of German aid to developing countries, H. Lembke also argued that cost-benefit analyses are only a minor part of the evaluation of poverty focussed investment projects. These tend to be both complex and participative, and, hence, highly dependent on social

and institutional factors which are not apprehended by traditional cost-benefit analysis. Other participants, like Julio Bonvin and L. E. Birgegaard felt the same way.

3. SHOULD IT BE DONE ?

The question whether poverty-focussed investment analysis should be done by the IDB received a more qualified positive answer from the conference. It could not have been otherwise, in view of the fact that the Bank's staff has already a mandate of its Board to do so.

The most important theoretical qualification to this posture referred to the "savings premium", according to an argument forcefully put forward by Anandarup Ray. In a nutshell, the argument is that economic growth is the best way to help the poor. Or, to put it in Anne Krueger's 1986 IBRD World Development Report terms, the poor will be better off if and only if there is economic growth. This means that savings generation needs to be emphasized in the design of investment projects. If the marginal savings rate is an increasing function of individual incomes, then it follows that it is the income of the rich-of-today which should be privileged vis-a-vis the income of the poor-of-today, because this is the only way that the poor-of-tomorrow will be less poor. Naturally, this reasoning needs to be qualified by the fact that the consumption of the rich-of-today is less deserving

than the consumption of the poor-of-today, but if the observed aggregate savings rate is very low and the rate of population growth very high, the weight of this qualification might not be enough to compensate the premium which the project analyst should attribute to the savings of the rich. Paradoxically enough, social project analysis might have to be rich-focussed rather than poverty-focussed to effectively reach the poor-of-today-and-tomorrow.

Ray's argument derives from the elegant intertemporal maximization processes developed for social project analysis by Little and Mirrlees. But its lineage goes back to the Harrod-Domar growth model, and the Soviet industrialization debate (if not way back to Marx's Capital), with their emphasis on the savings rate as the critical determinant of economic growth. The basic assertion is that income redistribution is inimical to economic growth because it diverts resources from savings in benefit of consumption. Chenery coined the term "redistribution with growth" to emphasize that redistributive processes can be devised which are growth promoting, but then they have to emphasize the increase in the productive capacity of the poor rather than being mere redistributive schemes favoring non-reproducible present consumption. Chenery's discussion was couched in terms of development policy, rather than in terms of social project analysis as such, but it tends to suggest, as discussed more at length in the following section, that the replacement of individual choice by collective action in the

allocation of income between consumption and savings might be the only way out of the Little-Mirrlees-Ray dilemma.

Another critique, raised both by George Irwin and E. Sarmiento, was that project choice is an inferior substitute to fiscal reform for income redistribution purposes. The adoption of a poverty-focus in project analysis might simply be a good excuse for not acting more decisively on directly redistributive measures, such as a tax reform. A superior solution would be for the project analysis to be concerned exclusively with economic efficiency whereas the tax policy, for example, would be directed at redistributing the income of the project towards the poor.

A more general statement of this position would be as follows. At one extreme, the argument might be made - as Arnold Harberger at times would make it - that income distribution judgements belong to the realm of social policy, but are not the business of cost-benefit analysis. The latter should involve only economic efficiency concepts and be neutral with respect to the income distribution consequences. A less sanguine approach was taken by Louis Emmerij in the conference and can be couched in the following terms. Income distribution should indeed be a main concern of the development economist's business, but not in this department. That is, the objectives of project analysis, fiscal policy - and demand management, for that matter - should be kept separate. Anandarup Ray found that there was a theoretical inconsistency in this position. Once a social welfare function which privileges the income of the poor is defined for policy

analysis, then any economic policy measure - be it a project analysis or a tax policy - should take into account this redistributive objective. However, Ray conceded that, in practice, policy makers might feel more comfortable with simple tools than with complex tools. Then, an assignment solution a la Mundell might be devised with, for example, project analysis designed to maximize aggregate income and tax policy designed to achieve income redistribution objectives.

A third point, of a very practical nature, was mentioned. Providing project analysis with a poverty focus is time consuming. In the field, project analysts have very poor data at their disposal, and a fixed amount of time to deliver their analysis. Giving them yet another function, namely, to calculate the redistributive impact of projects would detract from the quality of their analysis on the economic impact of these projects. It might be better to spend more time in basic data collection and in understanding the ins and outs of a given project, than in attempting to calculate its redistributive outcome. Terry Powers, based on the experience of the IDB, did not agree with this, however. He felt that the need to calculate the redistributive impact forced project analysts to improve the quality of their own economic analyses. For these now would be needed not only to calculate the economic rate of return but would also be an essential ingredient in the calculation of the impact of the project on the poor.

4. HOW SHOULD IT BE DONE ?

The discussion on how should IDB project analysis be given a poverty focus can be split into two separate sets: broader issues and specific problems.

4.1. Broader Issues

There are three main questions here: the "savings premium", the organizational set-up, and the macro-dynamic consequences. These are taken up in turn.

The "savings premium" argument it will be recalled contradicts the position that a premium should be given to the income of the poor in socially oriented project analyses. The question that needs to be posed then is whether project design can be changed to the point of altering the destination of the income benefitting the poor, in such a way that this income is saved rather than consumed. The only possible answer seems to be forced savings, by fiscal means or otherwise. The income would be imputed to the poor (rather than to the rich), but it would not be available for immediate spending. Two questions maybe raised, one about enforcement possibilities - and this leads to the organizational set-up of social project analysis, which is the next topic in line -, and other about "freedom of choice". The presumption here is that poor individuals might be willing to

vote for a collective forced savings scheme, even when, acting individually, they would rather consume than save. Freedom of collective choice would be preserved, even when individual choices were being preempted by the forced savings scheme. Amartya Sen has dealt with such topics, but they seem to deserve more attention in the project analysis literature.

The organizational set-up question relates to the problem of how to reach the poor effectively. Two separate issues seem involved. The first one is the intermediary problem. There are many bureaucratic, political and social layers between the IDB and the poor. The same project on paper may have widely varying social rates of return depending on the intermediation process through which the poor is reached. Moura Castro, for example, stressed the importance of continuity of institutions, through which social learning takes place. His example was the national lunch-box program in Brazil, which he thought very successful mostly because it is a program in which primary schools all over Brazil are involved for more than twenty years. His example also suggests that emulation is important, which brings forth the second issue involved in the organizational set-up, namely, the question of the appropriate incentives. It seems in the nature of an institution like the IDB, or of aid agencies more generally, that they tend to adopt, almost instinctively, the top-down approach. The poor are the "target" or the "object" of a given project. Inevitably, a paternalistic relationship develops in which the incentives for self-improvement become absent. Julio

Bonvin manifested his concern with the propensity of aid agencies for grant pushing, which might be an acceptable procedure for a road building program, but is totally incorrect for social programs. He thought that in this case there was a dramatic need to go slow, to provide little money, or else local initiative would be killed. More generally, the issue is one of complementarity versus substitutability of effort between the donor and the donee. It is an area where economists are in bad need of the advice of sociologists and political scientists in order to develop adequate project implementation procedures.

The third and final broad issue relates to the macro-dynamic impact of investment projects. There is first the political and sociological implications of different investment projects, a point emphasized by H. Hveem. However, for these, as pointed out in A. Berry's paper, "the theory is too general to give us much practical guidance, and the empirical record has been too little studied [3]." This may sound as a harsh economist's judgement, but it may also be seen as a consequence of the poor state of formalization of other social sciences, particularly in developing countries. There is next the impact of the project on economic magnitudes not generally taken into account in general equilibrium models, but which are of relevance for policy makers in developing countries, as expressed, for example, by the accelerator, the multiplier, the backward and forward linkages, the technological frontier, and the development pole. There seemed to be little agreement on how

to tackle these issues among the conference participants. Some of them, like the author, thought that the appeal to the "developmental" aspects of projects tends to be more often than not a politicians' excuse to do something of his/her own liking which does not pass the judgement of economic analysis. If the latter is competently done, through sensitivity analysis it should be able to incorporate most economically relevant aspects into the evaluation, even if only in terms of probability statements. Others, like Enrique Oteiza and Miguel Urrutia, felt many relevant consequences of development projects cannot be properly anticipated, and hence that the instincts of the politician might at times be a better guide for project selection than the theories of the economist.

In this context, a discussion arose on whether the "multiplier" effects of a given project should be counted or not. Anandarup Ray this time thought that aggregate demand management belonged to some other department in the economist's tool kit, and consequently that there was no room for counting the multiplier effects of a project as part of its economic benefits. Terry Powers submitted a different position when asserting that:

"Multiplier effects would be credited to a project only when it could be shown that the net income in accounting prices resulting from the expenditure pattern differs from what would be produced by investing in an alternative project [4]."

Moreover, in the discussion, Terry Powers suggested that, from the national point of view, the multiplier effects of projects which did not displace other funds available to the country should in fact be counted in - as it would the case, for example, with the analysis of an investment project of a multinational firm deciding to build a factory in country x or country y.

The opposing points of view of Ray and Powers on this issue might be reconciled, provided that one is willing to expand the scope of investment analysis beyond the realm of general equilibrium analysis, and also allow for states of macroeconomic disequilibria, in the tradition of Clower, Barro&Grossmann, Malinvaud, Benassy, etc. Once we take this step, at any given point in time (and all along the project lifetime) we may anticipate whether the overall economy will be supply constrained or demand constrained. In the first case, there are no multiplier effects to be taken into account, for other domestic expenditures need to be "crowded out" in order to give room for the domestic component of any new investment project, irrespectively of whether it is foreign or domestic financed. In the second case, however, the economy functions according to the laws of Keynesian economics and, hence, multiplier effects are an integral part of the domestic component of any new investment project. The question, then, is whether the social evaluation of a long-run decision like an investment project should allow for the possibility of macroeconomica disequilibria or should instead

proceed on the basis of the traditional general equilibrium framework. Professional opinion may diverge on this, but in practice disequilibrium macroeconomics has had no effect on the conceptual design of social project analysis. This might, however, be a fertile field of research in the coming years.

4.2. Specific Problems

By comparison there was not nearly as much discussion on the specifics of the current IDB methodology, presented in Terry Powers paper, as on the previous themes. Four general points should be mentioned.

The first relates to the specification of the target income levels for the definition of the "poor". There was general agreement in that the data presented in Table 1 of Terry Powers paper - which is reproduced below -, on the percentage of population below low income levels for different Latin American countries, is badly in need of revision. For example, Mexico has an income per capita higher than Brazil and a similar income distribution pattern. Nonetheless, according to Table 1, Mexico has 75 per cent of its population below the low income level, whereas Brazil has only 54 per cent of its population in the same group. C. Morrisson expressed a general feeling in the conference when he said that the numbers in Table 1 seemed to exaggerate the size of the relevant target groups in Latin America. One possibility of improvement would be to estimate two limiting

lines, one for the really poor and other for the low income population.

The second point relates to the measurement of the distributional impact of projects. Public sector income obtained from the project is currently excluded from this measurement, and this was felt to be a major weakness of the IDB approach. The measurement of the proportion of public sector income which benefits the poor would allow the estimation of the income distribution elasticity of the project, according to the formula:

$$\text{income distribution elasticity of the project} = \frac{\% \text{ net income of the project for the poor}}{\% \text{ national income for the poor}}$$

Provided that the income distribution elasticity were higher than unity, the project would be making a positive contribution to the income distribution of the country. Suppose, for example, that the poor is defined as the poorest 50% of the population, as suggested by the average values in Powers' paper. According to the World Bank data, they hold about 15% of national income in Latin America. This means that a project would pass the income distribution test provided that more than 15% of its net income were distributed to the poor. Many participants of the conference felt that this was a very weak test. L. E. Birgegaard, for example, suggested that the net income share generated for the poor by a given project should be no less than the share of the

poor in total population. According to this test, a project would be designed as poor-oriented only when more than 50% of its income would benefit the poor, in the above example.

The third general point relates to the need to improve the distributional analysis for intermediate inputs. One is struck by the fact that the numbers in Table 6 of Powers's paper, which is reproduced as Table 2 below, indicate that the lowest sectoral income distribution coefficients are those for industry, energy and transport. As these are generally taken to be the leading sectors in economic development, the impression is left that there is indeed a fundamental contradiction between income distribution and economic growth. Powers, however, is quick to point out that:

"It is a matter for further research to determine if the current distributional analysis for these projects fails to correctly represent their effect on low income households [5]."

Independently of this, it should be noted that the contradiction would disappear, provided we are willing to take as a benchmark the observed income distribution, rather than the ideal of a perfectly equal income distribution. Conference participants were reluctant to accept this posture, but if it is rejected then a serious problem would seem to emerge for the evaluation of "program" versus "project" loans, for the former,

almost by definition, would have an income distribution elasticity close to one, whereas the latter in principle could be designed to have an income distribution elasticity almost always higher than unity. Hence, if poverty alleviation were a major criteria of project selection, "program" loans - which are an undeniably attractive feature of current IDB finance - would almost never be approved.

The fourth point relates to the form of analysis. Should the IDB proceed to do a full blown social analysis, a la Little and Mirrlees, or should it maintain its poverty focus more or less along the current lines, through the presentation of a battery of poverty indicators, side by side with the calculation of the economic rates of return? Opinions diverged on this issue. Anandarup Ray thought that since the methodology is available and well developed, consistency and rigor required that it should be applied, with the aim of obtaining the social net present value of an investment project. Only then could a rigorous project evaluation be made, although for descriptive purposes a series of alternative poverty indicators might also be used. Others, like Moura Castro, felt that this is not the way economic decisions are made. Economists may recommend this to others, but they themselves do not make the important economic decisions in their lifes solely on the basis of economic rates of return. Indeed, Ray's point would seem to miss the rethorical role of economics: professionally, we would need to calculate with all possible rigor the social net present value. But our results would be

worthless unless a communications technology is developed to convince others of the relevance of our results. If this is not done properly, the evaluation may be impeccable, but the project will not be approved. In this context, poverty indicators would seem to have much more appeal to the relevant audience than social rates of return do. Hence, more research should be directed at improving the informational content of poverty indicators for the purpose of project selection.

5. SUMMARY

This paper provided a bird's eye view on some of the issues discussed in the IDB/OECD conference on income distribution and project analysis.

The focus of the conference was on the use of poverty indicators in the IDB project analysis work. Discussion proceeded on whether the IDB could and should use such indicators. A series of issues were also discussed on how these indicators should be designed and deployed. A summary follows.

The answer of the conference to the question if the IDB could adopt a poverty-focussed methodology for its project analysis was positive. The doubts related to the actual content of the "objective function" of the industrial country governments, and to the practical feasibility of implementing a poverty-focussed investment project through an institution like

the IDB. Do the poor really belong to the "objective function" of industrial country governments? Can the poor effectively be reached in the backlands of Latin America by a bank sitting in Washington DC?

The question whether or not poverty-focussed analysis should be done by the IDB received a more qualified positive answer from the conference.

The most important theoretical qualification was based on the "savings premium" argument, according to which economic growth is the best way to help the poor. This means that savings generation needs to be emphasized. Suppose the rich saves more than the poor, the savings rate is low and the population growth rate is high. Then, paradoxically enough, social project analysis might have to be rich-focussed rather than poverty-focussed to effectively reach the poor-of-today-and-of-tomorrow.

Another critique was that project choice is an inferior substitute to fiscal reform for income redistribution purposes. It would be better if project analysis were concerned exclusively with economic efficiency, whereas the tax policy would be directed at redistributing the project income towards the poor. This position, however, does not seem to be theoretically consistent. Once a social welfare function which privileges the income of the poor is defined, then any economic policy measure - be it a project analysis or a tax policy - should take into account this redistributive objective. In practice, however, simplicity may require that each instrument be assigned to the

objective it serves best, in which case the critique would be valid.

A third point was that providing project analysis with a poverty focus is time consuming. Scarce project analyst time would be better allocated to improve the economic analysis than to trace the effect of the project on the poor. The experience of the IDB, however, would suggest a counterargument: the need to calculate the redistributive impact of the project would force project analysts to improve the quality of their own economic analysis.

The discussion on how should IDB project analysis be given a poverty focus can be split into two separate sets: broader issues and specific problems. The first comprises three main questions: the "savings premium", the organizational set-up, and the macro-dynamic consequences.

The "savings premium" argument contradicts the position that a premium should be given to the income of the poor-of-today. The only possible answer to it seems to be forced savings. The income of the project would be imputed to the poor (rather than flowing to the rich), but it would not be available for immediate spending. Enforcement possibilities and the question of "freedom of choice" would need to be discussed. Amartya Sen has in the past dealt with such topics, but they seem to deserve more attention in the project analysis literature.

The organizational set-up question relates to the problem of how to reach the poor effectively. Two separate issues seem

involved. The first is the intermediary problem. The second is the question of the appropriate incentives structure. The issue is one of complementarity versus substitutability of effort between the donor and the donee. It is an area where economists seem to be in bad need of the advice of sociologists and political scientists.

The third broad issue relates to the macro-dynamic impact of investment projects. It refers to economic magnitudes not generally taken into account in general equilibrium analysis, such as the accelerator, the multiplier, the backward and forward linkages, the technological frontier, and the development pole. There was little agreement among the conference participants on how to tackle these issues. Some thought that modern economic analysis was up to the task. Others felt that many relevant consequences of development projects cannot be properly anticipated, and hence that the instincts of the politician might at times be a better guide for project selection than the tools of the economist.

A specific discussion arose on whether the "multiplier" effects of a given project should be counted in or not. The opposing views on this area might be reconciled, provided that we are willing to expand the scope of investment analysis beyond the realm of general equilibrium, also allowing for states of macroeconomic disequilibrium. If the economy is supply constrained, the project does not have multiplier effects, but if the economy is demand constrained, those effects are indeed

present. Professional opinion will diverge on whether social project analysis should allow for the possibility of macroeconomic disequilibrium, but this seems to be a fertile field of academic research in the coming years.

There was not nearly as much discussion on the specifics of the current IDB methodology as on the previous themes. Four points were mentioned.

The first relates to the specification of the target income levels for the definition of the "poor". A general point of agreement was that the IDB data was in bad need of revision.

The second point relates to the measurement of the distributional impact of projects. A major weakness of the current IDB approach is the exclusion of public sector income. The measurement of the proportion of public sector income which benefits the poor would allow the estimation of the income distribution elasticity of the project.

The third point relates to the need to improve the distributional analysis for intermediate inputs. Current IDB figures indicate that the lowest sectoral income distribution coefficients are those for industry, energy and transport. As these are generally taken to be the leading sectors in economic development, the impression is left that there is indeed a fundamental contradiction between income distribution and economic growth. Additional research is needed on this topic.

The fourth point relates to the form of analysis. Conference participants were in disagreement on whether the IDB should

proceed to do a full blown social analysis, a la Little and Mirrless, or should instead direct its research at improving the informational content of poverty indicators currently in use.

Many specific problems were thus raised and discussed, but in the final analysis the conference participants felt that the IDB work in this area was very innovative and worth pursuing further.

TABLE 1
 PERCENT OF POPULATION BELOW LOW INCOME LEVELS
 (Income data refer to 1980-81)

Country	Percent Below Low Income Level
Argentina	50
Bahamas	39
Barbados	55
Bolivia	65
Brazil	54
Chile	50*
Colombia	70
Costa Rica	48
Dominican Republic	70
Ecuador	50
El Salvador	90
Guatemala	75
Guyana	85
Haiti	82
Honduras	80*
Jamaica	51
Mexico	75
Nicaragua	90
Panama	70
Paraguay	60
Peru	70
Trinidad-Tobago	76
Uruguay	30
Venezuela	45*

(*) Estimate is extremely uncertain, due to unusually poor or incomplete income distribution data.

Source: IDB, apud Terry Powers, op. cit., Table 1, p. 3.

TABLE 2
 AVERAGE INCOME DISTRIBUTION COEFFICIENTS (IDC)
 FOR INVESTMENT PROJECTS IN SELECTED SECTORS

(IDB data for 1979-86 period)

SECTOR	NO. PROJECTS	IDC(*)
Agriculture	50	66.8
Industry	12	40.3
Energy	41	34.4
Transportation	39	34.1
Others	42	66.6
TOTAL	184	50.8

(*) The income distribution coefficient is defined as the ratio: value of net economic benefits received by low income persons/value of net economic benefits received by the private sector. The sectoral averages include only projects with cost/benefit analysis.

Source: IDB, apud Terry Powers, op. cit. Table 6, p. 35.

FOOTNOTES

1. Cf. Albert Berry, "Assessing the distributional impacts of foreign aid projects: some conceptual issues", paper presented to this conference, p. 5

2. Cf. Anandarup Ray, "Projects and poverty", paper presented to this conference, p. 10

3. Cf. A. Berry, *op. cit.*, p. 47

4. Cf. Terry Powers, "Applying income distribution analysis to projects - the IDB experience, 1979-86", paper presented to this conference, p. 24

5. Cf. T. Powers, *op. cit.*, p. 36

102. Bacha, E. "Banco Mundial: Um Memorando Brasileiro".
103. Camargo, J.M. "Política de Renda e Ajuste Macroeconômico".
104. Lopes, F.L. "Novo Austral na Argentina".
105. Abreu, M. de P. e W. Fritsch; "Brazil's Foreign Borrowing from Multilateral and Governmental Agencies: An Overview of Past Experience and the Present Challenge".
106. Modiano, E.M. "Repasses Mensais: Uma Alternativa de Política Salarial".
107. Abreu, M. de P. e W. Fritsch; "Latin American and Caribbean Countries in the World Trade System: Past Problems and Future Prospects".
108. Modiano, E.M. e F. Lopes; "Inflação: Análise do Impacto de Mudanças na Política Salarial".
109. Carneiro, D.D. "Long Run Adjustment, Debt Crisis and the Changing Role of Stabilization Policies in the Brazilian Recent Experience".
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