**RE-346-2**

# *Evaluation of the Quality of Economic Analysis for Projects Approved 1997-2006*

***Office of Evaluation and Oversight (OVE)***

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CONTENTS

## ANNEXES



## APPENDICES

## EXECUTIVE SUMMARY

This evaluation supports the notion that the economic analysis for operations undertaken by the Inter-American Development Bank is of low quality. The sample evaluated consists of 190 projects and is representative of the universe of projects approved in the period 1997-2006 in terms of the sector and country breakdown of the Bank's loan portfolio.

In this evaluation, economic analysis is understood as a cost-benefit analysis, i.e., a tool that, in its social dimension, allows the quantification, in monetary terms, of the value of all the consequences a policy, project, or other type of government intervention may have on the members of a society. Here, economic analysis represents a system of selection, allowing the prioritization of social preferences with respect to potential solutions to identified problems.

The relevance of economic analysis for the Bank lies in the fact that it has two qualities essential for the fulfillment of the mandate established in its charter. The first is that economic analysis is a tool that allows projected values to be ascribed the objectives set for a project, so that decisions can be based on a set of alternative intervention models. The second quality is that economic analysis can enhance the performance of the Bank's portfolio in cases where it has a positive impact on project design, inasmuch as it provides valuable information on the optimum scale of investment, location, technology, and term of investment for a specific investment.

A quality economic analysis has two additional qualities. First, it enforces the discipline of stating in measurable terms what objectives are expected to be achieved through project implementation. Second, it limits the scope of the project's objectives by requiring that they be measurable, thereby preventing the inclusion of inflated objectives and leading to the development of an analytical framework for results-based management.

In undertaking the evaluation, the absence of a clear, unified set of Bank policies with respect to the quality of economic analysis entailed the development of a complete, replicable evaluation instrument, including quality parameters consistent with international standards. In this process, eight dimensions were considered for evaluation: (i) the relationship between the project's objectives and the economic analysis; (ii) consideration of alternatives; (iii) financial analysis; (iv) cost-effectiveness or cost-benefit analysis; (v) fiscal impact; (vi) environmental impact; (vii) risk analysis; and (viii) institutional analysis. It should be noted that dimensions (iii), (v), (vi), (vii), and (viii) did not involve a complete evaluation of all aspects usually addressed in a financial, fiscal, environmental, risk, or institutional analysis, but rather only those areas linked to the cost-benefit or cost-effectiveness analysis.

Each of the tool's dimensions has one or more evaluation criteria, totaling 14 in all. The evaluation process used a scale of 1 to 4 (poor, fair, acceptable, and good) to rate each criterion, establishing specific requirements for each of the various criteria's ratings, in order to minimize subjectivity and maintain a level of consistency across evaluations of different sectors and countries.

The results of the evaluation indicate that there is still a much room for improvement in the quality of the economic analysis of Bank interventions. Excluding policy-based loans from

the analysis, 46.4% of the sample included some type of economic analysis (cost-benefit or cost-effectiveness, the latter being used when it is difficult to put a value on a project's benefits). However, when quality is measured, only 7.8% of projects with cost-benefit analysis and 6.9% of those with cost-effectiveness analysis achieved the highest score on the evaluation. In fact, over one third of the former showed only the internal rate of return, and more than half of the latter indicated that the project was the least-cost alternative or cost-effective, but made no mention whatsoever of the alternatives on which the comparisons were based.

Another dimension of economic analysis that is closely related to cost-benefit or cost-effectiveness analysis is risk analysis, and in particular, sensitivity analysis. Of all projects with cost-benefit analysis, 64.1% included a sensitivity analysis, while for projects with cost-effectiveness analysis, 34.5% included an exercise of this type. Just two projects received the highest score. The main limitation identified was the arbitrary introduction of variations (between 10% and 25% in most cases) in the total costs and benefits of the projects.

With respect to the relationship between the project's objectives and the explicit benefits in the cost-benefit or cost-effectiveness analysis exercise, a rating of "good" or "acceptable" was given to just over one fourth of the projects evaluated. Moreover, the results show that the absence of alternatives, for both counterfactual scenarios and alternative interventions to the evaluated project, is a feature of over 84% of the projects reviewed. A slightly better situation was observed in the identification of the fiscal impact on project agents, where 11.4% of the projects were rated as acceptable, and 59% as fair.

In the case of environmental impact analysis, a binary rating was given, depending on whether the environmental costs and benefits had been included in the economic analysis. Thus, the study showed that over 97% of the projects received a poor rating, due to the fact that, in most cases, the environmental costs arising from the impact study were not incorporated into the cost-benefit analysis. The last dimension evaluated was the institutional analysis. The stakeholder description criterion earned a rating of good or acceptable in just over 5% of cases, while for the criterion of identifying institutional weaknesses and mitigation measures, the ratio was 10.2%.

To corroborate these findings and find possible explanations for the behavior of the quality index, we used the results of a survey of Bank staff, whose opinions were obtained through a series of interviews of Bank staff and government officials in three countries. The most noteworthy explanatory factors include: (i) the lack of comprehensive, specific policies relating to the economic analysis of projects financed by the Bank; (ii) weak economic and sector work (ESW); (iii) the system of recognition of staff within the institution; (iv) the disconnect between the Bank's portfolio quality and risk rating; (v) the preponderance of sovereign risk in the loan portfolio; and (vi) the organizational separation between project design and execution.

One of the causal factors considered most relevant is the absence of an appropriate policy framework promoting quality economic analysis. The quality standard explicitly stated in the Bank's policies is overly generic and lacks specificity that would allow, beyond its application by project teams, compliance oversight by review and approval bodies. This

stands opposed to prior Bank policies (e.g. Operational Policy OP-302 approved in 1981 but no longer in effect) that established a significant level of detail in the procedures related to economic, technical, and institutional analysis.

Another reason for the low quality of economic analysis is the weak economic and sector work done by the Bank. This renders virtually nonexistent a deep knowledge disseminated within the institution on the economic sectors and borrowing countries served by the Bank's loans. This makes intervention design difficult project teams, who, based on knowledge gained and the information available, must select the most cost-effective intervention in economic terms.

Moreover, the incentive structure that shapes project team behavior favors speedy, mass approvals of loans. In light of the results obtained in this evaluation, this has jeopardized the quality of the economic evaluations certifying these designs as the best use of available resources. The time lag between the actions of the project makers and materialization of the outcomes of project execution makes it difficult to structure a compensation system tied to development results.

The causes for the results of this evaluation also include the disconnect between the quality of the Bank's loan portfolio and the risk rating of its debt on the capital markets; the high proportion of projects approved with sovereign guarantees, relaxing the need to support the economic and financial return of the projects financed; and the delinking that has existed between the staff responsible for the design of lending operations and those who must execute them.

The principal recommendations emerging from this evaluation include: (i) establish a policy framework and sector guidelines for the performance and supervision of quality economic analysis, (ii) promote the idea that the institution's incentives, in terms of staff recognition, are oriented toward project quality over quantity, and (iii) strengthen sector-based economic analysis as a strategic foundation for the development of quality projects.

# I. INTRODUCTION

1.1 There have been significant recent changes in the competition model in the sovereign financing market for Latin America. Specifically, financing alternatives for the region have expanded substantially to include, in addition to multilateral banks, international commercial banks, private pension funds, and the capital markets. In response, multilateral lenders have put more emphasis on the development impact of their operations as their main comparative advantage over the available alternatives.

1.2 In keeping with this shift, the Bank has adopted a results-based management approach and made a commitment to evaluate and measure the impact of its activities in the region. These initiatives have not involved rethinking the nature of the Bank, but greater consistency between its activities and the objectives established in the Agreement Establishing the Bank. It describes the Bank as a multilateral institution whose PURPOSE is "to contribute to the acceleration of the process of economic and social development of the regional developing member countries, individually and collectively"[1] through, among other activities, "financing the development of the member countries, giving priority to those loans and guarantees that will **contribute most effectively to their economic growth**."[2] This objective entails the following core activities:

> "to cooperate with the member countries to orient their development policies toward **better utilization of their resources**, in a manner consistent with the objectives of making their economies more complementary and of fostering the orderly growth of their foreign trade; and "to provide technical assistance for the preparation, financing, and implementation of development plans and projects, **including the study of priorities** and the formulation of specific project proposals." [3] [emphasis added]

1.3 The objectives emphasized above are met using a series of tools, including economic analysis. This allows projected values to be ascribed the objectives stated in proposed projects, so that decisions can be based on a set of alternative intervention models. Thus, economic analysis has a positive impact on the performance of operations and represents a tool for measuring and optimizing the Bank's development impact. However, the findings of the analysis of project evaluability[4] conducted in 2001 by the Office of Evaluation and Oversight (OVE) revealed, among other issues, that a relatively small number of projects involved any kind of economic analysis.

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1 Document GN-1912, "Agreement Establishing the Inter-American Development Bank."

2 Ibid.

3 Ibid.

4 Document RE-275, "Analysis of Project Evaluability, Year 2001."

1.4 Given the prevailing conditions described above, the Bank has put more emphasis both on ensuring the quality of its economic analysis and on optimizing its performance in terms of results. In keeping with this shift, OVE took on the task of evaluating the quality of economic analysis. To do so, it developed an instrument that established a series of performance indicators for economic analysis, based on international best practices. These were analyzed in a sample of 190 projects approved between 1997 and 2006 that are proportionally representative of the Bank's universe of projects in the period by sector and country. The findings of this analysis were supplemented through surveys and interviews of Bank staff and their government counterparts in an attempt to identify possible explanations.

1.5 This document presents the framework for the evaluation, and its primary results and findings. It has the following structure:

(i) First, it addresses certain conceptual considerations relating to economic analysis, in order to establish the basic definition used as the starting point for the evaluation, presenting both international best practices in the area, and those derived, at least theoretically, from Bank internal rules governing economic analysis, in order to contrast the basic definition with the applicable international and institutional practices;

(ii) Second, it presents the instrument designed to evaluate the quality of the economic analysis, considering its conceptual and methodological foundations, as well as its primary scope and limitations, and the results of its application to a sample of projects approved over the selected period;

(iii) Lastly, it presents the results obtained and postulates a series of factors explaining the quality of the Bank's economic analysis, based on data collected through the survey and interviews conducted among Bank staff and their counterparts in the selected borrowing member countries.

# II. QUALITY OF ECONOMIC ANALYSIS

## A. Definition of economic analysis

2.1 In this evaluation, economic analysis is understood as a cost-benefit analysis, i.e., a tool that, in its social dimension, allows the quantification, in monetary terms, of the value of all the consequences a policy, project, or other type of government intervention may have on the members of a society.[5] [6] Here, economic analysis represents a system of selection, allowing the prioritization of social preferences with respect to potential solutions to identified problems.

2.2 Unlike the evaluation done by businesses, which typically considers only costs and benefits in terms of expenses and revenues, economic analysis is a valuation method that quantifies all impacts—including positive and negative externalities—of a specific policy or intervention on the entity carrying it out, on society, and on the various stakeholders involved.

2.3 Specifically, the anticipated utility of economic analysis lies in its ability to:

(i) Determine whether a project will yield a return (when compared to the cost of capital);

(ii) Efficiently allocate the financial resources available for a project (by comparison with the projected net economic benefits of the alternatives considered);

(iii) Redesign the project components or activities in order to ensure greater net benefits in the future.

2.4 Thus, a quality economic analysis identifies unviable projects, and, in this way, operates as a mechanism to control the portfolio's yield in both financial and economic terms. In this respect, its use does not guarantee successful projects; rather, it indicates whether they are likely to yield a return. Economic analysis can also be used to select among alternative projects, as well as to redesign or eliminate components during the project preparation phase, inasmuch as it provides valuable information on the optimum scale of investment, location, technology, and term of investment for an operation. This valuation allows initial alternatives to be restructured, resulting in an optimized project design.

2.5 The use of economic analysis as an evaluation tool during the project cycle has two additional qualities. First, it enforces the discipline of stating in measurable terms what objectives are expected to be achieved through project implementation, by requiring the use of performance indicators and their respective baselines. Second,

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[5] Boardman, Anthony E. et al. *Cost-Benefit Analysis: Concepts and Practices.* 3rd ed. New Jersey: Pearson Prentice Hall, 2006.

[6] Limitations in the theory, the nature of the sector evaluated, or the availability of data and analytical resources may make it impossible for the analyst to measure and value all of a policy's impacts. In cases where impacts may be quantified but not valued, a cost-effectiveness or least-cost analysis will be required.

it limits the scope of the project's objectives by requiring that they be measurable, thereby preventing the inclusion of inflated objectives and leading to the development of an analytical framework for results-based management.

2.6 One of the key features of the economic evaluation of a project is its iterative nature, that is, the fact that, in addition to being used at the beginning of the project, it can be applied multiple times within the project cycle. However, there are three crucial times, each representing a specific type of economic analysis: (a) **ex ante analysis** is performed in the design phase and is used to decide to which, among a group of alternatives, the available resources will be allocated; (b) **midterm analysis** is performed in the execution phase and may be used, among other things, to make a decision regarding when resources may feasibly be transferred to alternative uses; and (c) **ex post analysis** is undertaken after the implementation phase to evaluate whether the project was effective in achieving its objectives. The ex post economic analysis not only provides information on a specific intervention, but, even more importantly, it also provides relevant information for the design of similar interventions, thereby enhancing the quality of the ex ante evaluations for these projects.

2.7 Ideally, these three analyses each requires the others and create very useful synergies for the design and development of future projects. A comparative analysis between ex ante and ex post evaluations may provide useful information on the predictiveness of models used in project design and accumulate a store of information to be used as benchmarks for other potential interventions.[7] This type of interaction between the stages of the economic analysis cycle makes even more sense when the user of the economic analysis is a development bank that conducts repeated operations in the same countries and in the same productive sectors. Learning from experience in an efficiently way, while capitalizing on knowledge gained, is one of the benefits of using economic analysis.[8]

### 1. Scope and limitations of economic analysis

2.8 Clearly, economic analysis, understood as a cost-benefit analysis, does not exhaust all of the considerations that should be taken into account in project development, and its scope, while substantial, is limited to the calculation of economic return. Indeed, all projects require other types of analysis to determine their technical and institutional feasibility, their consistency with the sector and macroeconomic strategies established by the government and the Bank, as well as with the setting in which the Bank operates. Therefore, economic analysis is just one part of an analysis which **takes as given** that the project is technically sound, and that institutional arrangements will be made during execution. If these two assumptions

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[7] Examples of this benefit include certain sector economic analysis methodologies included in public investment system manuals that are based on the outcomes of projects already executed in the field in question.

[8] This evaluation focuses on the ex ante economic evaluation of a sample of projects approved between 1997 and 2006.

hold, then economic analysis is a valuable tool for assessment of alternatives, redesign, and decision-making.[9]

2.9 Moreover, cost-benefit or cost-effectiveness analysis does not provide automatic or unequivocal answers, since it is merely a tool providing additional information to guide the use of public resources in productive and social sectors, albeit an extremely useful one. So, while economic analysis may produce recommendations for informed decision-making, its use does not determine the decision itself. Although it does give some idea of how resources should be allocated, it is not a theory of how the decisions should be made. These decisions are made in bureaucratic bodies, in which economic analysis is just one input in the political decision-making process. Thus, economic analysis represents an imperfect method whose results should be used to provide more information on the efficacy and efficiency of a specific program, but not for ruling strategies out of hand.

2.10 In addition to the restriction imposed by its scope, economic analysis may have other types of limitations, including the following:

(i) First, those derived from the quality of the inputs or calculation procedures, which can give rise to four kinds of errors: (a) omission errors, (b) prediction errors, (c) measurement errors, and (d) valuation errors.

(ii) Second, those related to the project's ultimate objectives. In fact, there could be targets that, although not considered and distinct from efficiency in cost-benefit terms, are relevant for the proposed intervention, e.g., those impacting equal opportunity and income redistribution.[10]

(iii) Lastly, those related to its predictive capacity, inherent in any economic method due to the uncertainty regarding how individuals will respond to a specific intervention and the possibility that third parties not addressed by the project may be impacted in a way that decreases the costs or benefits of the policies implemented.

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[9] As noted above, even though economic analysis is based on the assumption that the project has sound technical support, its successive iterations may give rise to recommendations—aimed at optimizing the project's expected economic return—that involve modifications to the technical design of certain components.

[10] When targets other than efficiency are relevant, or when all impacts cannot be monetized reliably, multiobjective analysis provides an appropriate analytical framework. In the special case where the efficiency and equality of outcomes are the only relevant targets, a weighted cost-benefit analysis may be an appropriate technique. The multiobjective analysis is based on the notion that all policy alternatives may be compared in terms of all relevant targets. The weighted cost-benefit analysis provides an alternative decision-making yardstick to maximize net benefits. Rather than taking the net benefits as an aggregate, they are calculated for each of the different relevant groups, distinguished by income level. Thus, the net benefits of each group are multiplied by a weighting factor, selected by the analyst, in order to reflect certain distributive targets, and then the discounted net benefits are added and the alternatives evaluated can be compared.

2.11 Economic analysis also requires consideration of the stakeholders' willingness to pay as a method for valuing the project's outputs, and the opportunity cost for valuing the resources or inputs necessary to produce them. In this regard, two fundamental issues arise as a consequence of interpreting willingness to pay as a measure of benefits in assessing the efficiency of policies. First, there are theoretical limitations on the aggregation of the amounts that individuals are willing to pay for a good or service received, involving the possibility that the net benefit criterion may not lead to an unequivocal ranking of the proposed interventions. Consequently, ordering the interventions in terms of net benefits does not guarantee the transitivity of the social ordering of these interventions. Second, policy issues are involved, because willingness to pay is dependent on the distribution of wealth in a society, a fact that in practice is resolved though the analyst's subjective valuation and the practice of reporting the net benefits by income group.

## B. Economic analysis in practice

2.12 In practice, while the economic evaluation of a project may show marked sector specificity, it generally must follow these methodological steps: (1) **specify the set of alternatives** evaluated to address the identified problem; (2) **determine the actual and potential demand** for the good or service generated by the project, as well as the **current and future supply**; (3) **identify the target population** (direct and indirect project beneficiaries) **and who will bear the costs of the operation**; (4) **catalog the expected impacts** and select indicators to measure them; (5) **quantify the impact of the intervention** using the selected indicators; (6) **monetize the project's impacts** using shadow prices for the project's inputs and outcomes; (7) **discount the project's net costs and benefits** to calculate the net present value (NPV), using an appropriate social discount rate; (8) **perform a risk analysis** to identify and manage the uncertainty surrounding the interventions' outcomes; and (9) **calculate the project's fiscal impact**, (10) its **financial sustainability**, and (11) the **institutional capacity** of the entities involved in its execution.

2.13 The cost-benefit analysis methodology has been adopted by multilateral development organizations that finance investment projects, to support decision-making on the allocation of available resources based on valuation of the expected impact of the proposed interventions.[11] Systematic use of this methodology and its adaptation to each of the abovementioned organizations has given rise to what are known as the international best practices in this field. As explained below, these have been used in this study as evaluation standards for the projects making up the sample. Annex I describes in detail each of the dimensions of cost-benefit analysis used by the World Bank, the Asian Development Bank, the European Commission,

[11] As part of the effort to disseminate the practice of cost-benefit analysis, multilateral lenders have promoted its use in the planning ministries (or local counterparts) of borrowing countries through financing for the development of what are known as national public investment systems (NPIS).

Chile's Ministry of Planning, and the Inter-American Development Bank, as well as how each of these institutions conceptualizes each dimension.

### 1. Cost-benefit analysis from a sector perspective

2.14 Applied across the full range of productive sectors, economic analysis retains certain common features. In each sector, however, it acquires specific traits that, once absorbed through systematic application, give rise to preestablished frameworks for modeling project design based on the expected net benefits. This can be seen in Boxes 1 and 2, which illustrate the specific features acquired by economic analysis in the roadway infrastructure and education sectors.

**Box 1. Economic analysis in roadway infrastructure projects**

Economic analysis in **roadway infrastructure projects** usually evaluates the financial and economic feasibility of one of the following **types of interventions**: **(a) expansions,** increasing the vehicle capacity of a road as the result of turning two-lane roads into divided highways or adding additional lanes; **(b) route improvements,** involving changes in the course of the road, decreasing the curvature of slopes, or building an alternative road; **(c) surface improvements,** improving the quality of the road's surface, as in the case of paving a gravel road, or placing gravel on a dirt road; **(d) repaving,** consisting in the renovation, in whole or in part, of deteriorated pavement; and **(e) construction of new roads,** in order to reach areas with limited accessibility, such as the construction of access roads, coastal roads, or border crossings.

Such interventions seek to achieve one of the following **objectives**: **(a) to reduce congestion**, eliminating capacity limitations on networks or building new connections or alternate routes; **(b) to improve the efficiency of a connection**, particularly by increasing the speed of travel and reducing the costs of vehicle operation and the frequency of accidents through the adoption of safety measures; **(c) to build missing connections or complete construction of poorly connected networks,** allowing the integration of transnational, national, or regional territories; and **(d) to improve accessibility of peripheral zones or regions.**

**In order to estimate the flow of economic costs and benefits, these objectives must be made measurable through quantifiable benefit indicators. These include: (a) variations in the consumer surplus,** including the time multiplied by the value of time (for work) and the burdens on the user, such as charges, tolls, and changes in the costs of vehicle operation, including variations in fuel efficiency, the use of lubricants, tires, maintenance, and depreciation; **(b) variations in the producer surplus,** including profits and losses of infrastructure managers and public transportation operators, as well as any variation in government subsidies and taxes; **(c) valuation of time** of nonprofessional travel (including to and from work), which ranges, in most countries, from 10% to 42% of the value of work time; **(d) environmental costs,** which depend, in general, on the distances traveled and the level of exposure to polluting emissions; and **(e) road safety,** in which the methods used to evaluate the external costs associated with accidents avoided must be applied with reference to the average levels of danger for each mode of transportation.

Developing estimates of these indicators requires the specialist to make an **estimate of the existing demand and potential demand.** To do this, he or she must calculate: **(a) the makeup of the vehicle fleet that constitutes the annual average daily traffic (AADT) carried by the new infrastructure or**

**strengthened infrastructure**, in terms of existing traffic, traffic diverted from other modes of transportation, and traffic generated or induced;[12] **(b) the elasticity with respect to the time and costs** that follows implicitly from the estimates of traffic diverted from other modes of transportation; and **(c) the sensitivity of the projected traffic flows to certain key variables**: the elasticity with respect to travel time and costs, as well as the levels of congestion of different competing modes.

Viability analysis also aims to calculate, for each baseline scenario and solution, the **investment costs** and expenses foreseeably to be incurred by the renovation and extraordinary maintenance operations (done at regular intervals) over the entire evaluation period. Time losses for roadway users caused by potential closures or blockages associated with planned construction or improvement work must also be added, as well as other related social costs such as the replacement price for services, expropriations, and green or recreational areas.

Although infrastructure sectors are generally considered strong sectors,[13] given their capacity to have measurable cost and benefit indicators, they show great expected variation in indicators of basic costs. Delays in project execution, unforeseen engineering details, as well as geological conditions not identified in the design process and technical prefeasibility studies can introduce a major element of uncertainty into the project's aggregate costs and, therefore, into the indicators of economic return associated with the project. For this reason, such scenarios need to be included in the risk analysis.

**Box 2. Economic analysis in education projects**

The economic analysis of education projects tends to evaluate the financial and economic feasibility of one of the following types of interventions: **(a) construction of new schools** in order to increase educational opportunities in the geographic region under study; **(b) implementation of education programs and refresher training for faculty at educational institutions**; and **(c) providing technical equipment and teaching and recreational materials to schools**. The objectives of these interventions include the following: (a) increasing the productivity of the beneficiaries and, therefore, their income and that of their employers; (b) achieving greater personal satisfaction through the knowledge acquired; and (c) better integrating the beneficiaries into society by giving them access to new services and reducing antisocial behaviors. The execution of these projects aims to have positive impacts on academic performance indicators such as: the enrollment rate,[14] educational performance,[15] overcrowding, saturation of installed capacity, and the technical capabilities of the faculty.

Diagnostic assessment of the educational requirements of a specific location employs educational indicators such as: academic progress, average attendance, enrollment, average level of schooling of the population, pass and fail rate, illiteracy rate, timely success rate, overall success rate, and time to completion, among others. In addition to scaling the project design and determining and quantifying the potential benefits of its execution, **demand must be projected** over a horizon of approximately 10 years. For projection purposes, it is very important to consider whether the reference area is stabilized or subject

[12] Annual average daily traffic (AADT) breaks down into normal traffic, diverted traffic, and induced traffic. Normal traffic is defined as the traffic corresponding to the original volume of traffic and its expected growth. Diverted traffic is drawn away from alternate routes as a result of the proposed project. Lastly, induced traffic is the new traffic that is made possible entirely by the road improvement, that is, that group of new road users, who in the absence of the project would not travel or would use means of transportation other than the roadway.

[13] In comparison with the so-called weak sectors (education and health), where it is more difficult to measure the outputs and outcomes of interventions.

[14] The education deficit of the school-age population is measured using the enrollment rate, based on the proportion of boys and girls enrolled in the early childhood, primary, and secondary levels of education.

[15] Educational performance refers to the increase in the level of learning, increased general knowledge, enhanced socialization, and greater competitiveness for entry into the job market.

to denser population development, whether it is an area undergoing urban expansion, and whether migrations are occurring as a result of the closing or opening of a source of employment. The following factors must be considered for both the delimitation and characterization of the area being studied,: the network of existing institutions, relevant boundaries (geographic and administrative), accessibility (existence and condition of access roads, available public transportation, public transportation fares, weather, and public safety conditions), general features of the study area (type of area, socioeconomic status of the population, location of the population by socioeconomic strata, infrastructure in the area, and cultural considerations), and administrative characteristics of the education system. It is also necessary to identify the features of the enrolled population with respect to socioeconomic level, the level of education of parents and/or guardians, prevailing cultural traits, and the school population in the area of influence.

The offerings of the current education system must also be determined for the project's area of influence, corresponding to the total installed capacity at the time of the study. It will depend on the existing infrastructure, how it is equipped, and the human and financial resources available. The supply of educational infrastructure is determined by the installed capacity of the schools, as well as by the capacity of classrooms, toilet facilities, and playgrounds mandated by legislation.

The expected benefits of educational projects are hard to measure, especially when the private demand for education does not fully reflect such benefits, because people do not value them, or lack the buying power to pay their full value. In other words, the benefits of education cannot be estimated by users' willingness to pay. Yet it is possible to estimate some of these benefits indirectly. Thus, **benefits that translate into greater individual production can be estimated as the difference in income earned by people with different levels of education over their lifetimes**. More education adds knowledge and skills that make the individual more productive at work, which is a benefit for society (more is produced) as well as for the individual who gets more education (earns more income for work).[16] The individual who receives the education has the potential to access further education, and thereby achieve greater levels of production and higher levels of income. There are also **benefits of education for persons other than the student**; for example, attendance at school gives mothers more time and provides children with nutrition and care. Even when we cannot value the benefits of all education projects, it is important to identify them, quantify them, and indicate who receives them.

Costs must include operating costs (compensation, inputs, basic services, maintenance, leases, other operating costs), investment costs (land, construction, equipment, and information activities), and transportation costs (transportation costs: travel time and cost, transportation of students and faculty).

## C. Economic analysis rules at the IDB

2.15 To establish the quality standard for economic analysis of the projects in the sample evaluated for this study, it is necessary to know the type and extent of explicit requirements in the Bank's applicable rules. In this regard, the rules governing the application of cost-benefit analysis at the Bank have undergone considerable changes over time, particularly relating to their scope and level of specificity.

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[16] Estimates made in various countries indicate that the income earned by individuals depends on their level of education, work experience, innate ability, and other variables such as family and social relationships, on-the-job training, etc. Income estimates for individuals with differing levels of education are significant in a market economy, since the amount paid for each unit of work represents the marginal productivity of that unit (that is, the additional value of the output produced through use of that unit). On this basis, the benefits of obtaining a certain additional level of education are usually estimated in terms of the income differentials over the student's lifetime, i.e., the income earned with the additional education minus the income earned without it, all in present value.

2.16 Specifically, the socioeconomic evaluation required by the Lending Policies, in the section on project preparation and evaluation (Operational Policy OP-302), which originated in a discussion of the Board of Executive Directors in August 1978,[17] was characterized by the broad scope of the dimensions included in the analysis and by having a level of disaggregation and detail that allowed the project analyst to derive specific actions from its application. As can be seen in Box 3, OP-302 included, to a large extent, the analytical dimensions proposed in current international practice, and one of its greatest merits was that it was a binding document that provided the analyst with a guide for economic analysis of the project under evaluation.

2.17 The policy entailed a cost-benefit analysis for which the required inputs, as well as the goods and services provided by the project, were to be valued at market prices, and then corrected for potential distortions (trade barriers, taxes and subsidies, or monopolies) that kept them from reflecting the opportunity cost of the resources. Once the flows of costs and benefits valued at the applicable social prices[18] were obtained, the NPV had to be calculated for the project (and each alternative evaluated) using the opportunity cost of the capital of the country/sector. Operational Policy OP-302 established that a cost-effectiveness or least-cost analysis should be performed in those cases where valuation of the project's benefits was not possible, since the absence of an explicit market for the goods or services produced by the project meant that no price vector that could be used as a reference. The policy itself recognized the limitations inherent in this approach, since it assumed that the benefits were homogeneous and equal in value. For this reason, this type of analysis appeared in the policy as a **second best alternative,** when the data **(or a reliable proxy)** were unavailable to the analyst.

2.18 The policy also called for a sensitivity analysis of the values initially assumed for each of the model's key variables, as well as incorporation of the project's indirect effects by taking into account adverse environmental impacts or beneficial side effects, such as the stimulus produced by the project on the industries that would provide inputs for the project, on regional development and the economic integration process, and on the diversification of production.

2.19 Operational Policy OP-302 allowed that a project was economically acceptable if its internal rate of return was greater than the opportunity cost of capital, set at 12%. This rule, in addition to promoting the approval of projects that yield good social returns, also led the Bank to secure those project designs considered optimal with respect to any other alternative intervention model. Therefore, passing the economic acceptability test was a necessary, but not a sufficient, condition for a project to be approved by the Bank's decision-making bodies. The project also had

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[17] This discussion was led by the Economic Advisor to the Manager of the Project Analysis Department (PRA), Mr. Beers, and the Economist in the Methodology Unit of the Economic and Social Development Department (DES), Mr. Powers.

[18] Social prices are obtained after adjusting market prices for distortions.

to be shown to be the best alternative, there being no other **affordable** option with respect to design, scale, location, or opportunity that could yield greater net benefits.

2.20 Lastly, the policy required an analysis that allowed measurement of the project's redistributive effects, showing the distribution of benefits among the different income strata of the target population. To do this, it called for income flow to be calculated for the following categories of beneficiaries: (a) low-income private sector,[19] (b) other private sector, and (c) public sector.

**Box 3. Policies and economic analysis**

| **Operational Policies Manual OP-302, March 1981**[20] | **Operations Processing Manual PR-1105-5. Current policy** |
|---|---|
| **Loan policies. Preparation and project evaluation Socioeconomic evaluation** | **Project analysis phase. PR-1105 Economic assessment. PR-1105-5** |
| **Objectives** | **Purpose** |
| This analysis helps assure that the Bank's actions will make a maximum contribution to achievement of the development goals of the borrowing countries, such as: national and sector economic growth, regional integration, better use of technology, more equitable income distribution (especially by improving the living conditions of the most needy families), reduced unemployment, and strengthened balance of payments. Socioeconomic analysis is also incorporated into project preparation through preinvestment loans and technical cooperation; both activities seek to select and formulate projects in terms of the above objectives. | The economic assessment is characterized by the consideration of the most productive use of resources the project needs. In development projects, economic efficiency is considered from the perspective of the whole society, not from the perspective of the particular interests of an individual or a firm. The economic assessment of a project is primarily focused on: (1) The comparison between costs and benefits for the society of carrying out a project; (2) Determining efficient or inexpensive forms of using resources; and; (3) The prognosis and appraisal of the project's redistributive effects. A cost-benefit analysis of the different designs for a project makes it possible to select the design that best contributes to a country's development objectives. This study is normally performed in successive stages during project preparation, but the economic evaluation stage is when the final examination and decisions are made. The sector framework is studied during the economic evaluation of a project. Sector investment programs, the strengths and weakness of public and private institutions in the sector, and key government policies are examined. |
| **Scope and method** | |
| An economic analysis comprises: (1) identifying the physical inputs used and outputs produced by the project, and (2) quantifying these physical flows in | |

[19] The low-income population is determined using the estimated costs for the minimum requirements of food, clothing, and housing.

[20] The rest of the dimensions included in the Bank's Operational Policy OP-302—data adjustments, indirect effects, test for economic acceptability, cost-effectiveness analysis at efficiency prices, social aspects of projects, and project objectives—are presented in Annex II.

| Operational Policies Manual<br>OP-302, March 1981[20] | Operations Processing Manual<br>PR-1105-5. Current policy |
|---|---|
| **Loan policies. Preparation and project evaluation<br>Socioeconomic evaluation** | **Project analysis phase. PR-1105<br>Economic assessment. PR-1105-5** |
| money terms. The analysis uses generally accepted microeconomic methodologies, as well as methodologies developed especially by the Bank or by others for specific types of projects. The basic approach in all cases is to estimate the value of the incremental impact of the project on the economy as a whole by comparing what would occur in the market for each input and output with and without the investment.<br>The evaluation phase of project analysis has two steps: (1) an economic efficiency analysis, which prices inputs and outputs at their value to the economy as a whole; and (2) a distributional analysis which would account for the division of project benefits and costs among individuals of different income levels, between savings and consumption, and between public and private income. The Bank recognizes the importance of a comprehensive distributional analysis and encourages its inclusion, where possible. It is now systematically incorporating the impact of Bank lending on low-income beneficiaries. This analysis is subject to revision as experience is acquired in its application.<br>The economic evaluation compares economic benefits or contributions to domestic product with economic costs; its result is expressed as the economic internal rate of return of the project or its net present value (the excess or discounted benefits over discounted costs, where the discount rate is the opportunity cost of capital) The analysis compares different alternatives of design, scale, location, and timing so as to maximize the net present value, and thus to contribute as efficiently as possible to economic growth.<br>Sensitivity analysis is regularly performed to show the effect on the project of changes in important assumptions as to prices and/or quantities of inputs and outputs. When key data are uncertain, an effort may be made to prepare probability analyses, to show, for example, what is the percentage probability of a rate of return in excess of the cutoff value.<br>National development objectives are linked to decisions about which project to finance via Country Reports and Sector Studies that are prepared by the Economic and Social Development Department. The Country Reports describe the macroeconomic situation of the country, the sector, and the geographical region. They will also provide certain key accounting parameters, such as the opportunity cost of capital, labor, and local goods, which relate national development objectives to the economic analysis of projects. These parameters will | |

| Operational Policies Manual<br>OP-302, March 1981[20] | Operations Processing Manual<br>PR-1105-5. Current policy |
|---|---|
| **Loan policies. Preparation and project evaluation<br>Socioeconomic evaluation** | **Project analysis phase. PR-1105<br>Economic assessment. PR-1105-5** |
| aid the project economist in the valuation of project inputs and outputs from the national viewpoint and will provide a cutoff profitability level (cost of capital) for Bank-financed projects. The parameters will also be used in the ex post appraisal of projects.<br>**Data adjustments, indirect effects, test for economic acceptability, cost-effectiveness analysis at efficiency prices, social aspects of projects, and project objectives appear in Annex II.** | |

2.21 Looking at the Bank's current policy,[21] presented in Box 3, significant changes can be seen in terms of the scope required for the economic analysis and the level of detail with which it is presented. With respect to scope, the current policy does not require, for example, the preparation of a risk analysis, on the basis of which the analyst reports on adverse scenarios that the project under evaluation could face, as well as the associated likelihood of their occurrence. With respect to the level of detail, the policy is strictly general, avoiding the inclusion of specific features that would not only enable compliance, but also make it subject to supervision by the Bank's review and approval authorities. This is evident when we compare the two policies, since the more recent version fails to describe the meaning or implications of any of the three major guidelines it presents: (a) comparison of the social costs and benefits, (b) determining efficient or inexpensive forms of using resources; and (c) prognosis and appraisal of the project's redistributive effects.

2.22 The divergences between the current and former Operational Policy OP-302 extend beyond the boundaries of socioeconomic analysis, addressing additional and complementary dimensions such as institutional, technical, and financial evaluation. A comparison of the 1981 policy and the current policy on these dimensions appears in Annex III. For example, with respect to the institutional analysis, the differences in scope between the old and current standards are significant, and the level of specificity is even more so. The current policy requires an "institutional viability" analysis, but does not specify the dimensions to be reviewed to determine the project execution capacity of the institution(s) involved. By contrast, Operational Policy OP-302 explicitly states which aspects must be considered to assess the institutional capacity of the entities involved, including: (a) identification of objectives and targets (both formal and those based on the perception of the various managerial levels); (b) the entity's degree of organization (internal structure: decision, action, and coordination levels, as well as responsibilities and

[21] The current reference to the previous policy (OP-302) appears in the economic evaluation of the Operations Processing Manual in the section on the Project Cycle, specifically the Project Analysis Phase (PR-1105).

authority); (c) the use of human, financial, and material resources within the organizational structure; and (d) the institutional framework within which the entity functions.

2.23 In general, the gap between the current policy and Operational Policy OP-302 can be explained by the fact that the current policy only sets the objective to be pursued, but not the procedures or general guidelines to orient the work of the specialist evaluating the technical, economic, financial, and institutional feasibility of the project considered for execution.

## D. Economic analysis and the project cycle

2.24 In the initial phases of the project cycle, called the programming and identification phases, the Bank and the country engage in a dialogue, building consensus around the fundamental development issues, their causes, and the most appropriate forms of intervention, which can range from the design and implementation of a change in the country's regulatory framework to the provision of a specific good or service. The outputs in this phase generally take the form of economic assessment reports, policy dialogue documents, country strategies, and sector studies, among others. These documents serve three basic purposes: tools to facilitate dialogue on macroeconomic policy strategies with the countries, a support and feedback tool in the programming process with the country, and sources relevant information for the project teams for the design of operations.

2.25 These reports impact the Bank's programming process through two main mechanisms. The first is the effect they may have on the governmental authorities, potentially causing them to adopt the suggested strategies and incorporate these inputs into the programming process. The second is through coordination between the preparation of economic assessment reports and the programming of operations with each country. This process allows Bank specialists to identify new investment opportunities and new forms of intervention, by providing relevant information to the project teams for operation design, presenting them with the alternatives to be considered as potential solutions to the problems identified.

2.26 Actual performance of the economic analysis takes place at a later stage, called the **analysis phase**, as shown in Figure 1. According to the institution's Operations Processing Manual, the feasibility of the measures proposed by the project are evaluated in the **analysis phase** from the economic, technical, financial, environmental, legal, and institutional standpoints.

2.27 The project generation process and, therefore, the project technical and economic feasibility study, is neither linear nor based on a top-down mechanism, due mainly to the diversity of the agents involved. Projects financed by the Bank are the result of consensus between the Bank's research and monitoring activities and dialogue with the country, in which development outlooks are agreed upon, and the intervention agenda is very flexibly designed. There is no single way to generate projects; indeed, they can originate in many different ways. Although in some cases

an intervention authored exclusively by the Bank or exclusively by the country may be proposed, most are the result of working together.

2.28 In general, governments centralize proposals from the various ministries, city halls, municipalities, etc. through their National Public Investment System[22] and submit preliminary project concepts to the Bank. The selection of these projects by the government may be influenced to some extent by the discussions with the Bank during the identification phase regarding development issues. In any event, the Bank reviews the consistency of the specific solution with the problems and solutions posed in the country dialogue. Most often, the project team must take charge of turning this preliminary concept into a complete project that can be approved by the Bank's decision-making authorities. In this process, the Bank models and optimizes the project's components, entailing the introduction of a set of design elements that may be critical for the project's success after implementation.

2.29 Therefore, despite the fact that systems for generating projects may vary significantly from case to case, and that the institutional structure and development of the public investment system are such that the country must conduct the financial and economic evaluation of the project being executed, it will always be the Bank's responsibility to ensure that the loaned resources are allocated as efficiently as possible.

[22] Currently, most countries in the region have national public investment systems (NPISs), whose objective is to allocate resources for public investment to the most efficient projects, as explained in Table 4.

**Box 4. The role of national public investment systems (NPISs)**[23]

**National public investment systems (NPISs)**[24] are interagency coordinators that regulate and govern the public investment process. These administrative agencies integrate all the principles, methodologies, rules, and procedures that guide the development, execution, and evaluation of investment programs and projects undertaken with public funds. In this sense, the objective of the **NPIS** is focused on promoting the execution of profitable, sustainable, well-integrated, and properly dimensioned projects, consistent with sector policies that are in turn **consistent with the priorities** of the national policies and plans, as well as **with the public spending and external debt targets** defined by the medium- and long-term macroeconomic framework.

Considering that public investment needs are always greater than the resources available for their financing, each country's NPIS faces the task of deciding which public investment demands will be prioritized and which must be postponed due to resource constraints. In addition to considerably restricting discretionality in allocation of project funding, by making the approval and resource disbursement process much more rigorous, one of the greatest benefits for countries developing and promoting their NPISs is that they will have an ordered record of national, sector, territorial, and local projects, so that they can better negotiate and access more preinvestment and investment financing from national and international institutions and cooperation agencies.

Although most Latin American countries have NPISs, **development of their institutional framework and relevance has not been uniform in the region**. Despite the fact that most countries have legislation governing the operation of their NPISs, the more recent the system, the clearer and more precise are the laws and regulations supporting it. Thus, the oldest system (Chile) has no specific legal framework, but is supported primarily by the instructions in the Public Sector Budget Act. In contrast, the most recent systems (Argentina, Peru) have a specific law creating the NPIS and regulatory decrees governing its operation. Given that project banks, which gave rise to the idea of the NPIS, emerged as a tool to support the investment planning process, in older countries they were attached to planning offices or ministries. As these were restructured or disappeared, more recent systems are associated with ministries of finance or economy. In Central American countries, in the early to mid-1990s, NPISs entered a promising cycle of revaluation, modernization, and greater prominence with respect to programming, administration, and control of public investment. With more specific functions and responsibilities, the planning agencies or offices incorporated the preparation of the annual public investment plan, with legal and methodological support, into the government's financial management systems and under the Ministries of Economy and Finance (Panama), Ministry of Finance (El Salvador), Office of the Secretary General of Programming and Planning and the Ministry of Public Finance (Guatemala), the Ministry of Finance (Honduras), the Ministry of Planning (Costa Rica), and the Office of the Technical Secretary of the Presidency (Nicaragua).

In terms of the methodological component, the structure is similar in all NPISs and includes aspects related to project identification, diagnostic assessment of current conditions, analysis of alternatives, and private-sector and social evaluation. All that changes is the depth with which each issue is addressed and the way in which the information is to be presented. In general, there is a trend toward developing increasingly detailed and self-explanatory methodologies, presenting the analysis findings in standardized formats or templates (e.g. Colombia, Bolivia, and Peru), and developing sector methodologies and case studies to serve as guides for other types of projects.

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23 *La modernización de los Sistemas Nacionales de Inversión Pública: análisis crítico y perspectivas* [The modernization of National Public Investment Systems: Critical analysis and perspectives]. ECLAC. December 2002.

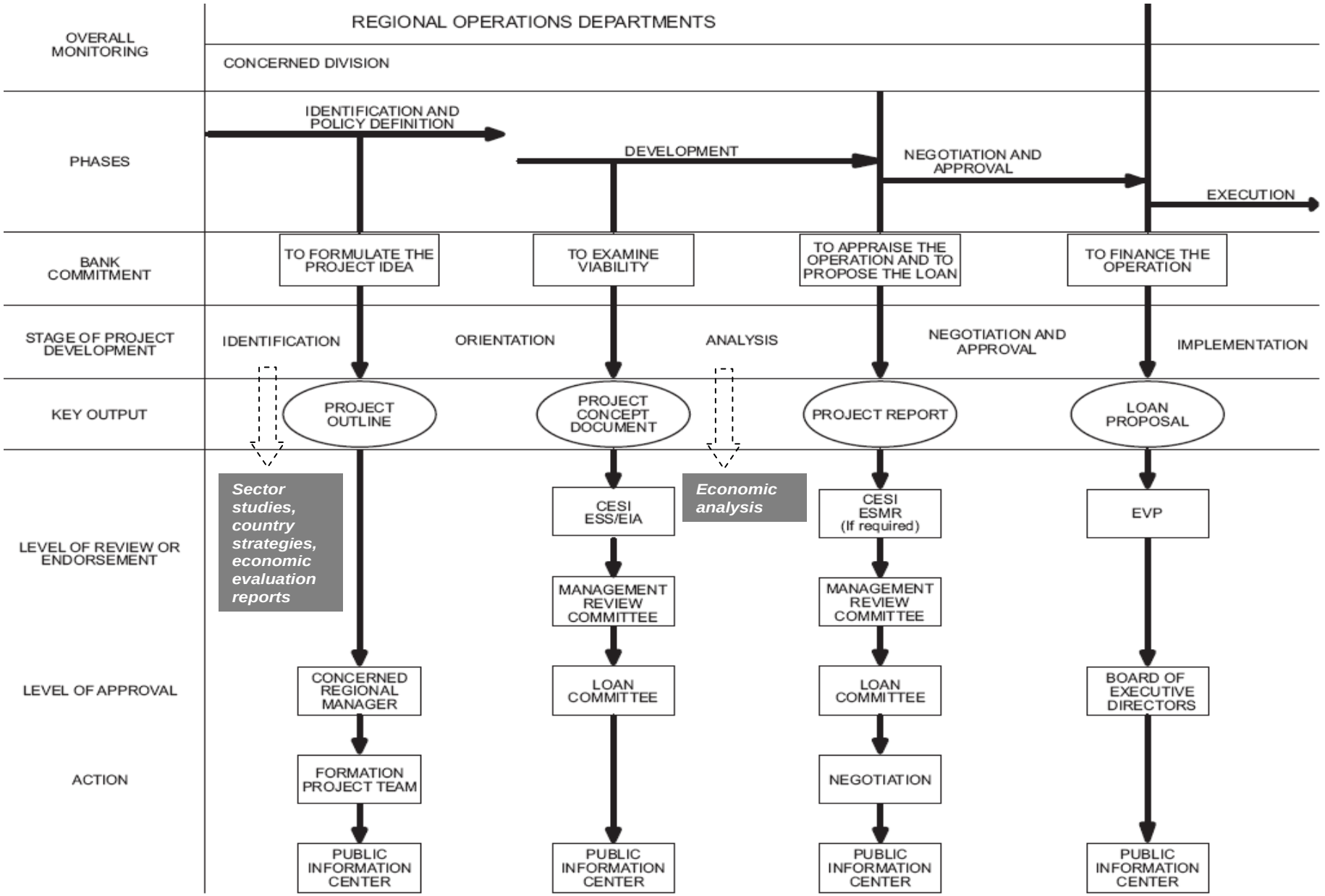
24 NPISs operate at various levels of government: national, regional, and local. Designed as national systems, they incorporate all public sector entities involved in investment activities, including ministries, public enterprises or majority State-owned corporations, and decentralized agencies.

The sources of financing included in the NPIS are quite varied, but, in general, an attempt is made to include all investment resources available to the entities making up the NPIS, including funds of foreign origin. And since training is a key aspect of an NPIS's success, most countries have developed training programs based on courses at basic, intermediate, and advanced levels, usually through agreements with local universities. The Latin American and Caribbean Institute for Economic and Social Planning (ILPES) has played a significant pioneering role in this area, participating actively in the development of a training program in Colombia, the administration of Chile's training program courses, various courses in other countries, and the design of new courses and training methods.

In terms of scope, it can be said that the efficiency of public investment has benefited significantly in those countries where evaluation of the various programs and projects included in the investment budgets of central, territorial, or regional entities has become a systematic, institutionalized activity (e.g. Colombia and Chile).

**NPISs have continued to change until recently**. In Peru, for example, measures aimed at "decentralizing" the NPIS were introduced recently to streamline public investment in a context of greater fiscal resources. That meant that ministries, regions, and local governments had the authority to declare the viability of all their projects (except borrowing operations or those requiring government guarantee), assuming responsibility for quality control of their investments, an area previously evaluated by the Ministry of Economy and Finance in most cases. Another interesting case is Mexico, where varying levels of rigor were established for public investment project analysis, including traditional cost-benefit analysis for larger projects; simplified cost-benefit analysis for medium-sized investments; cost-efficiency analysis for social or governmental infrastructure projects or maintenance programs; or simply economic rationale in the case of very small maintenance investments and programs.

**Figure 1. The project cycle, March 2008**



# III. MEASURING THE QUALITY OF THE BANK'S ECONOMIC ANALYSIS ON A SAMPLE OF PROJECTS APPROVED 1997-2006

3.1 This chapter presents the results of evaluation of the Bank's economic analysis on a sample of projects approved between 1997 and 2006. It has three sections: the first describes the evaluation instrument; the second describes the Bank's loan portfolio, specifically, the sample analyzed; and the third presents the results produced by applying the instrument.

## A. Instrument for evaluating the quality of economic analysis

3.2 The fact that there were no policies in place that define the Bank's economic analysis in a complete, detailed fashion meant that this evaluation had no baseline to serve as a reference for evaluating the quality of economic analysis in loan proposals. This limitation required the development of a replicable evaluation instrument that used quality parameters consistent with international standards[25] and could discriminate among projects with differing quality of economic analysis. The application of this instrument allowed an exhaustive diagnostic assessment that provided the opportunity, under a formal procedure and intersubjective valuation, to identify defects, find regularities, and make recommendations.

3.3 The Bank has developed two previous evaluation instruments related to economic analysis: the evaluability tool and the project quality-at-entry tool, designed by the Office of Evaluation and Oversight (OVE)[26] and the Development Effectiveness and Strategic Planning Department (DEV),[27] respectively. The purpose of these tools, and of the one proposed in this document, was to enable the Bank to produce comparable evaluations regarding its operations and so improve the quality of its interventions. With respect to the potential overlap of evaluation factors, the quality of economic analysis instrument shares just a few common elements with the instrument for the evaluation of project quality-at-entry,[28] but not with the evaluability tool.

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[25] A brief review of prior work on the quality of economic analysis, as well as international best practices, can be found in Annexes II and I, respectively.

[26] OVE developed and applied the evaluability instrument beginning in 2001, so that the Bank could institute effective results-based management. There are three key areas to be considered in determining a project's degree of evaluability: (a) clear definition of the expected outcomes (expressed as a logical relationship between the strategies and proposed objectives); (b) identification of indicators and expected targets to measure the actual results; and (c) identification of a data storage system to generate information from those indicators during project execution and completion.

[27] DEV developed the project quality-at-entry tool as part of an effort by Management to evaluate the quality of projects through a structured analytical system. Its objective was to assess project quality in all its dimensions: strategic and methodological relevance; technical, financial, economic, and environmental aspects; fiduciary responsibility; evaluability; executability; sustainability; and risk management. To this end, an analytical model was developed for each of the primary lending instruments, since their conceptual and design differences required that they be addressed individually.

[28] The most evident is the economic aspect of the project. Information on scores previously established with this instrument could not be accessed, so the quality-at-entry evaluations could not be compared with the results reported in this document.

### 1. Unit of observation

3.4 This evaluation uses the project as the unit of observation, since the project, as a model designed to achieve specific objectives through a set of actions, is the unit that embodies all operational processes and represents the basic element for decision-making by the Bank's review and approval bodies. The project loan document represents, to a certain extent, the store of knowledge accumulated with respect to the country and the target sector,[29] as well as the knowledge generated during project preparation.

3.5 Furthermore, the activities monitored most closely by multilateral development agencies are the projects they finance, and therefore they tend to use project outcomes to describe their effectiveness. This fact is also evidenced in the Bank's record-keeping system, since its operations are generally associated with a specific project that relates to the operating expenditures and the staff time devoted to its preparation, design, execution, and supervision.

3.6 In addition to the loan documents, this study examined the methodological and analytical annexes related to the economic analysis supporting the project's design, in order to determine whether there was evidence that alternatives to the submitted project had been considered, as well as whether the risks carried by the project had been properly identified and assessed in the design and preparation phases.[30]

3.7 Even when all documents available through the Bank's internal and external networks related to the project preparation and design process were reviewed, the unit of observation posed a number of notable restrictions.[31] Despite the existence of good quality economic analysis, there are a significant number of projects for which the loan document or the project's technical support documents do not provide an adequate basis for evaluating the quality of the economic analysis.[32] The information presented in these reports with respect to the issue is quite limited, since it does not provide comparisons between the intervention alternatives considered, and therefore, does not allow the reasons leading to the submitted

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29 According to World Bank studies, a project leader uses information from macroeconomic analyses and sector studies (economic and sector work, or ESW), up to four years after its publication.

30 All documentation available on the Bank's intranet was reviewed for each project in the sample. Of the total of 190 projects, 172 had some kind of annex. In terms of the types of annexes found: 25 had an institutional analysis, 7 had an environmental analysis, only 20 had annexes related to economic analysis (57 economic annexes in all were analyzed, since 7 of these projects had more than one economic analysis), and 137 had a logical framework. There was also access to various other types of annexes, such as procurement plans, policy letters, results matrices, and others.

31 These same restrictions have been noted in previous studies by other multilateral financial institutions. For example, see: World Bank. *A review of the quality of economic analysis in staff appraisal reports for projects approved in 1993.* Washington, D.C.: World Bank, 1995.

32 Inter-American Development Bank. "Economic Analysis for Development Effectiveness: Proposed Guidelines." Washington, D.C.: (DEV).

project being selected to be distinguished.[33] The economic analysis presented in the loan document tends to focus fundamentally on the presentation of profitability indicators such as the project's internal rate of return and net present value, but does not provide sufficient information to evaluate all relevant aspects in order to characterize its quality.

3.8 Moreover, the format used to present the content of the economic analysis in loan documents does not facilitate its inclusion. It is presented in an extremely aggregated form in three parts of the document (socioeconomic analysis, risk analysis, and financial analysis), and the space available for its presentation is limited, so the explanations are necessarily quite general. The lack of a standard formally requiring the presentation of detailed documentation on economic analysis for approval means that no such analysis was done for a significant portion of the sample reviewed for this evaluation.

3.9 In contrast, the widespread use of the logical framework[34] in projects submitted for approval means that they always have some level of evaluability.[35] In the application of this instrument, it is hard to address the problem of not finding a minimum level of evaluability, since the logical framework requires the presentation of expected outcomes, indicators, or targets. Yet this problem does arise when evaluating the quality of economic analysis, inasmuch as there are projects that do not have any analysis of this kind.

### 2. Description of the instrument

3.10 The evaluation instrument proposed here considers a set of factors that complement the cost-benefit or cost-effectiveness analysis. Thus, the instrument combines eight dimensions: (i) the relationship between the project's objectives and the economic analysis; (ii) consideration of alternatives; (iii) financial analysis; (iv) cost-effectiveness or cost-benefit analysis; (v) fiscal impact; (vi) environmental impact; (vii) risk analysis; and (viii) institutional analysis. Each of these dimensions corresponds to one or more evaluation criteria, for a total of 14 criteria evaluated by the proposed instrument.

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[33] One of the major errors in the economic analysis presented to the review and approval units is the lack of alternatives to the project selected to resolve the identified problem. The loan document should provide a discussion of the objectives of the sector and the alternatives considered leading to the consideration of the proposed course of action. This requirement does not necessarily imply that the project team has to perform this analysis, since it could be prepared by the country economist, the Bank's sector economist, or even the Planning Minister of the borrower country.

[34] The logical framework, a tool used extensively in Bank projects, and economic analysis are complementary instruments, not interchangeable. While the logical framework can quantify the conditions before and after an intervention, the economic analysis analyzes the impact of the project, that is, it compares scenarios with and without the project.

[35] This is shown in the OVE study on project evaluability: Inter-American Development Bank. "Analysis of Project Evaluability, Year 2001." Document RE-275. Washington, D.C.: Inter-American Development Bank (OVE), 2003.

3.11 Both the dimensions and the criteria are directly related to economic analysis, whether it be cost-benefit or cost-effectiveness analysis.[36] The first dimension evaluates whether there is a relationship between the project's objectives, always present in any loan proposal, and the project's benefits described in the economic analysis. The second dimension corroborates the presentation of alternative courses of action to the project, among which the counterfactual scenario is also considered, that is, the alternative of not taking any course of action. The third dimension, financial analysis, does not evaluate all the areas that a study of this type usually presents, but rather only considers aspects that are relevant to the economic analysis. In particular, the presence of financial flows may serve as a basis for the development of the economic flow. The fourth dimension evaluates the quality of the economic analysis itself.

3.12 The fifth dimension analyzes whether the implications of the project were studied in terms of who are the agents who pay or receive the taxes, subsidies, and transfers. The project's environmental impact, addressed in the sixth dimension, does not consider analyzing the quality of the environmental impact assessments, but rather only whether the expected impacts were evaluated in the economic flow. Likewise, the seventh dimension, risk analysis, does not attempt to evaluate the quality of the considerations proposed with respect to all risks to which a project may be exposed, but rather focuses on the risks that can impact the project's economic flow. Finally, the institutional analysis relates to those stakeholders identified in the economic analysis.

3.13 Based on the foregoing, it is clear that the proposed instrument does not represent a comprehensive evaluation of all aspects usually addressed by a financial, fiscal, environmental, risk, and institutional analysis, but rather only certain areas linked to the cost-benefit or cost-effectiveness analysis. Below is a table summarizing all of the instrument's dimensions and criteria, as well as a description of the minimum requirements that projects should meet for the highest rating in each criterion.

[36] Cost-effectiveness or least-cost, depending on the sector being evaluated and the information available to the analyst.

**Table 1**
**Instrument for evaluating the quality of economic analysis**[37]

| | |
|---|---|
| **1. Relationship between the project's objectives and the economic analysis** | |
| 1.1 | **Relationship between the project's objectives and the economic analysis**: The objectives are defined in measurable terms. There is a direct relationship between the project's objectives and benefits, which have been quantified in the cost-benefit or cost-effectiveness analysis. |
| **2. Consideration and evaluation of alternatives** | |
| 2.1 | **Counterfactual scenario**: A scenario without the project was considered, mentioning and supporting (with a detailed description and presentation of the flows) the benefits and costs associated with this option. |
| 2.2 | **Identification and evaluation of alternatives**: A set of alternatives other than execution of the project was considered, mentioning and supporting (with a detailed description and presentation of the flows) their benefits and costs. |
| **3. Financial analysis** | |
| 3.1 | **Estimation of financial flows**: The financial flows of revenues and costs (of design, execution, and operation) generated by each of the alternatives evaluated were presented in detail. |
| 3.2 | **Creditworthiness**: An evaluation was conducted of the entity's credit history with the Bank or other institutions, its credit rating, financial statements, and the composition, structure, and service of its debt. For public sector loans, an analysis of fiscal accounts was also presented (budget, revenues, spending, and economic results). |
| **4. Cost-effectiveness or cost-benefit analysis** | |
| 4.1 | **Cost-effectiveness analysis**: In cases where benefits could not be valued, a least-cost, cost-effectiveness, or weighted cost-effectiveness analysis was done, providing the cost-effectiveness ratio for each of the alternatives evaluated. When working with the cost-effectiveness analysis, support was provided that the indicators used were reliable (yield the same results when applied repeatedly to the same individuals) and valid (reflect a close relationship to the underlying concept). |
| 4.2 | **Cost-benefit analysis**: In cases where benefits could be valued, a cost-benefit analysis was performed. In addition to the internal rate of return (IRR), the net present value (NPV) and the project's flows were presented in detail. This analysis was performed for each of the alternatives evaluated. |
| **5. Fiscal impact** | |
| 5.1 | **Identification of the fiscal impact on project agents**: The agents receiving or paying the taxes, subsidies, and transfers were identified, determining those who benefited or were hurt by the project. The profits and losses of the agents involved were quantified. |
| **6. Environmental impact** | |
| 6.1 | **Consideration of the project's environmental impact**: The environmental costs derived from the impact assessment, as well as the cost of the proposed mitigation measures, were incorporated into the cost-benefit analysis. |
| **7. Risk analysis** | |
| 7.1 | **Sensitivity analysis**: A sensitivity analysis was performed in order to evaluate the variation to which the net benefit flows are subject in the event of changes in the parameters on which the analytical assumptions are based (price vector, average execution delay, average demand for the good, and institutional stability, among others). The level of stress to which each alternative was subjected was a response to the variability of the parameters involved and not to an arbitrary change in the project's costs and benefits. |
| 7.2 | **Analysis of switching value by assumption and the associated probability**: A switching value analysis was performed for each of the parameters identified and used in the sensitivity analysis. Using an analysis of their distribution, it was also corroborated that the values of the parameters—for which the NPV is canceled out or the IRR falls below the threshold established by the Bank—have little likelihood of occurring. |

[37] The definitions presented in Table 1 for each criterion correspond to the highest rating (4) for each dimension evaluated. The design of each of the four possible ratings appears in Annex IV, which presents the evaluation tool in detail.

| | |
|---|---|
| 7.3 | **Variables to be monitored and mitigation measures**: The periodic monitoring of the variables that make the project's flow of expected net benefits more sensitive was proposed, based on the two preceding analyses (sensitivity and switching value). The applicable mitigation measures in the event of fluctuations were indicated, as were their associated impact and cost. |
| **8. Institutional analysis** | |
| 8.1 | **Stakeholders and their behavior, preferences, and incentives**: An institutional matrix was developed identifying each of the stakeholders impacted by the project, providing details on the relationship between each one and the process of change moving forward in terms of inputs, outputs, and outcomes. Detailed explanations were also provided for the preferences and incentives of each identified stakeholder. |
| 8.2 | **Weakness of involved institutions and mitigation measures**: The weaknesses of participating institutions were identified and detailed, so that the activities required by the project are successfully implemented; measures were also proposed to mitigate the identified weaknesses. |

3.14 The evaluation instrument was designed to evaluate the quality of the economic analysis of investment projects, and, to a lesser extent, the policy-based loans included in the Bank's loan portfolio. This latter category of instruments has a set of special features that requires the use of general, partial, or other equilibrium methodologies to evaluate their impact, rather than a cost-benefit type of analysis.[38] They also require greater depth in the use of institutional matrices, since they make it possible to evaluate the actions, interactions, and consequences of the reforms on the institutional agencies involved.

3.15 While the scope of the evaluation instrument presented is limited to cost-benefit analysis, and that prevents it from being used for an exhaustive evaluation of policy-based loans, its nature does make it possible to evaluate the institutional analysis and the creditworthiness of the State or of the government agency that will institute the policy reforms. In practice, these are the dimensions that receive the most attention in the loan documents of this type. Nevertheless, those projects classified under this lending instrument (policy-based loans) were excluded from the analysis of outcomes, although this document does provide, in an annex, a brief description of the results of applying the instrument to these types of loans.

### 3. Rating system and the consistency of evaluated criteria

3.16 A scale of 1 to 4 was used to rate each of the criteria making up the evaluation tool's eight analytical modules, in which 1 represents the lowest rating (poor); 2, a score that is also unsatisfactory (fair); 3, a moderately satisfactory rating (acceptable); and 4, the highest and most satisfactory rating (good).

3.17 To facilitate application of the tool and consistency of the ratings across the projects reviewed, rating guidelines were drafted explicitly showing the meaning of each of the four possible scores (poor, fair, acceptable, and good) for each criterion in the eight dimensions evaluated, making it possible for evaluators to reach a consensus with respect to what each dimension means and the type of evidence that leads to

[38] Richard Bolt et al. (2004). "Economic Analysis of Policy-Based Operations: Key Dimensions." Asian Development Bank.

one score rather than another.[39] To correct any bias there may be in an evaluation of this type, due to the subjectivity inherent in a qualitative evaluation, a subsequent validation process was carried out. This involved the preparation of 190 templates with the comments on each project for each criterion evaluated, in order to facilitate identification of inconsistencies among the ratings made by the members of the evaluation team.

### 4. Limitations of the instrument

3.18 The main limitation of the instrument is that it does not allow detailed, in-depth evaluation of all aspects of the quality of the economic analysis. The exercise to minimize subjectivity in the ratings through the use of specific requirements for each of the instrument's criteria resulted in the establishment of a benchmark determining what is understood as work of minimum quality. In this sense, what ends up being evaluated is whether the project meets the minimum requirements for having quality economic analysis, and thus it can be said that the evaluation reflects the existence of the conditions necessary, but not sufficient, to achieve the highest quality level.

3.19 Moreover, although the evaluation tool allows the categorization of various aspects related to the quality of the economic analysis, it does not make possible a full evaluation of the quality of the project's design. As indicated above, the unit of observation, the loan documents, and the annexes related to economic analysis usually do not provide complete information on project design.

3.20 Given that the diagnostics carried out on projects pertaining to the different sectors (sanitation, tourism, energy, transportation, etc.) in which the Bank has intervened, and the reference parameters included in the tool are general and not sector-specific, the identification of characteristics of economic analysis that are peculiar to each sector are not captured by the evaluation tool. In fact, this is a characteristic of the quality verification templates used by the evaluability and quality-at-entry tools, as well as by the World Bank's economic analysis quality evaluations.

## B. The Bank's loan portfolio and the sample used

3.21 Between 1997 and 2006, the Bank approved a total of 775 loans, equivalent to US$62.6 billion. These figures represent an annual average of 77 loan operations and US$6 billion in credit. During the period under consideration, the Bank's loan portfolio, measured as the amount of funds approved annually, shows an upward trend. However, if measured as a proportion of gross domestic product (GDP) or public debt, a downward trend can be observed. This latter fact can be explained, in part, by the growth of Latin America. That, along with prudent management of fiscal accounts and, in particular, the profile of their international liabilities, has enabled the region's countries to access alternative sources of financing on the debt markets.

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[39] A detailed presentation of the evaluation tool is given in Annex IV.

### 1. Universe of projects

3.22 The universe of projects analyzed is made up of all loans approved in the 1997-2006 period, including investment loans, loans to the private sector, sector loans, policy-based loans, and emergency loans. With respect to the sector-specificity of the loan portfolio during the period analyzed, 29.5% of the amounts approved target the social investment sector, followed by the reform and modernization of the State sectors with 24.7%.

### 2. Selection of the sample

3.23 The evaluation of the quality of economic analysis considered a sample of 190 operations approved by the Bank's Board of Executive Directors between 1997 and 2006.[40] Thus, of all loans, 24.5% were reviewed in terms of the number of projects, or 27.5% in terms of the amounts approved.

3.24 The 190 projects were selected at random,[41] but subject to replicating, first, the sector distribution of the portfolio and second, its distribution by country.[42] Figure 2 shows the distributions by sector, country, and year, indicating that, for this evaluation, the Bank portfolio distribution by year was not replicated.

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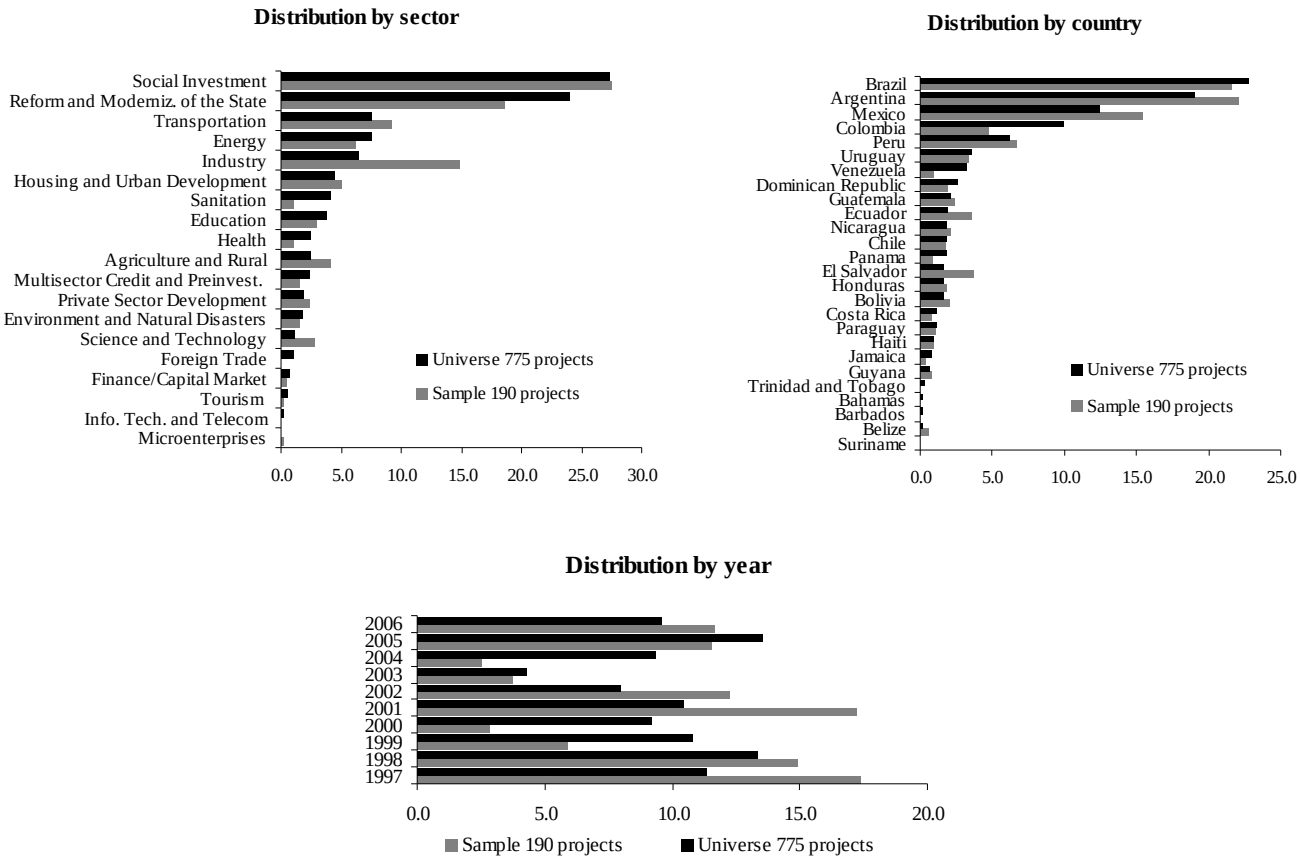
[40] By addressing only loan operations, nonreimbursable resources (grants) and guarantees for operations with sovereign guarantees were excluded. The loan category also excluded MIF operations, project preparation facilities, and technical cooperation operations, as well as regional loans.

[41] When loan documents for the operations originally selected by random could not be accessed, projects were selected arbitrarily to maintain the distribution by sector and country we sought to replicate. After a review of all 775 projects representing the universe of projects, it was found that in 8.6% of cases (67 projects), the loan document was not available. Of these, it was found that 34.3% corresponded to the first two years of the period analyzed (13 were approved 1997, and 10 in 1998). This fact could indicate that the Bank's document recording system has improved over time.

[42] The main differences in the quality of economic analysis can be explained by the sector breakdown of the loan portfolio. Work began under this hypothesis, because these were the results found in the two major evaluations done by the World Bank to determine the quality of economic analysis for projects approved, first in 1993, and later in 1996 and the first half of 1997. In particular, the World Bank distinguishes between one group of sectors that traditionally use cost-benefit analysis (agriculture, energy, finance, telecommunications, transportation, urban development, and sanitation) and another group of sectors that traditionally lack this type of analysis (education, population, health, and nutrition). Based on this consideration, the decision was made to replicate, first, the sector distribution of the Bank's portfolio, and then to use the level of representation of countries with respect to the Bank's total portfolio. The results obtained in the first evaluation, by countries and sectors, presented in section C.3 of this chapter, corroborate that the primary differences in the quality of economic analysis occur on the sector level.

**Figure 2. Distribution of the universe of projects and the sample by sector, country and year, according to loan amounts**




3.25 As can be seen in the figure, as in the case of the universe of projects, the sample focuses on seven of the 19 existing sectors: (i) social investment, (ii) reform and modernization of the State, (iii) transportation, (iv) energy, (v) education, (vi) housing and urban development, and (vii) agriculture and rural development. These seven sectors represent 73.7% of the sample selected, both in terms of amounts approved and number of projects; while in the case of the universe of projects, these sectors represent 76.9% of amounts approved and 71% of the number of operations.

3.26 The distribution of the sample by type of operations shows a bias toward investment loans, to the detriment of loans to the private sector and policy-based loans. Considering the number of projects, the universe concentrates 76.1% of its operations on investment loans, while this ratio reaches 84.2% for the sample. A similar figure is obtained when reviewing the amounts approved, where the sample has 73.2% of resources placed in investment loans, a figure greater than that of the universe of projects, which concentrates 57% of the amount approved on this type of operation.

3.27 The results of the economic analysis quality review, presented in the following section, correspond to one part of the sample analyzed: the 166 investment loans (to both the public and private sectors). As indicated above, the inclusion of the policy-based loans (24 projects analyzed) would render the results incomparable due to their different nature. Nevertheless, these projects were also evaluated and their results are discussed in Annex VI.

## C. Results of the evaluation

### 1. General results

3.28 The results of the evaluation of the investment projects show a low level of quality in the economic analysis performed by the Bank. The risk, financial, environmental, and alternative analyses, together with the cost-benefit or cost-effectiveness analysis, are the dimensions where the weaknesses are most evident. The results indicate that 46.4% of the sample shows some type of economic analysis (77 of 166 investment projects), if the definition thereof is limited to cost-benefit (64 projects) or cost-effectiveness analysis (29 projects).[43] This percentage sheds light on the Bank's concern for including evaluation instruments in the operations, but also hides a low level of quality of economic analysis.[44]

**Box 5. "Socioeconomic viability" when no cost-benefit or cost-effectiveness analysis is performed**

Apart from the 77 projects with economic analysis (cost-benefit or cost-effectiveness), 89 projects include various explanations about their potential impacts. In principle, **38 projects (of the 89) make no mention at all of the issue** and do not even include the usual "socioeconomic viability" or "economic viability" headings in the loan documents. The rest of the projects were classified into six groups. Three of these groups contain the most common explanations: **22 projects describe the potential social impacts** of the intervention, **14 make reference to increased market efficiency,** and **4 describe their macroeconomic or financial impacts**. Finally, there are three small groups: 5 projects make reference to prior program evaluations; 4 mention that a socioeconomic evaluation was undertaken, but show no indicators or figures derived from the supposed evaluation; and 2 indicate that an evaluation will be conducted in the future.

In the largest group, addressing **social impacts**, it is common to find under the "socioeconomic viability" heading reference to the groups that will benefit (10 cases), repetition of project components and potential benefits (3 cases), mention of project performance indicators (3 cases), or references to impact studies for similar programs in other countries (2 cases). The argument for project HA-0093, indicating that "any project that can generate opportunities for access to jobs or basic services should be considered a priority," stood out. Clearly, such a statement represents a clear denial of the basic usefulness of traditional economic analysis (cost-benefit or cost-effectiveness) and of the concept of scarcity of resources.

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43 Sixteen projects included both a cost-benefit and cost-effectiveness analysis.

44 The low quality of economic analysis is a characteristic that has also been noted in previous Bank research projects, such as the one performed by DEV that analyzed a sample of 42 investment projects approved between 2003 and 2005, or the one by OVE on projects in Guyana during the 1992-2004 period. In the first case, the following limitations were found: (i) the economic information presented was very limited, (ii) the documentation supporting the analysis provided an inadequate basis for determining the loans' development effectiveness, (iii) the economic analysis was usually limited to presenting the IRR, and (iv) the Management committees paid very little attention to the economic analysis presented. In the second case, all but the transportation projects lacked cost-benefit and risk analysis.

3.29 Thus, only 7.8% of projects with cost-benefit analysis and 6.9% of those with cost-effectiveness analysis achieved the highest score on the evaluation. In fact, over one third of the former showed only the IRR, and more than half of the latter indicated that the project was the least-cost alternative or cost-effective, but made no mention whatsoever of the alternatives on which the comparisons were based. As shown in Box 6, the IRR required for a project to be approved by the Bank's review authorities is at least 12%. This minimum return value allowed by most multilateral institutions has remained virtually unchanged over time, despite the fact that the opportunity cost of capital not only varies among countries and economic sectors, but also has shown variation over time.

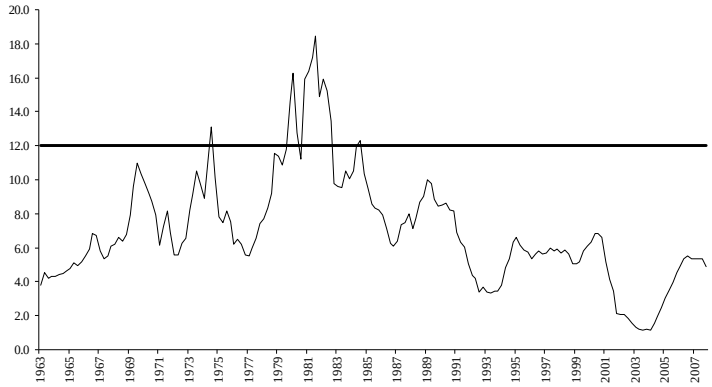
**Box 6. Constant 12% opportunity cost: a short history**

Opportunity cost, long used by the IDB, has remained constant at a value of 12% and has its origins in the literature on economic development from the 1950s. In his 1955 book, *Design of Development*, Jan Tinbergen uses a rate of 10% as the appropriate cost of capital for evaluating projects in developing countries. His original source is the ECLAC *Manual on Development Projects*. Since then, various World Bank projects were evaluated at rates of 10% and 12%. In an operational memorandum from March 1971, the World Bank indicates that "[i]n most countries, the [opportunity cost of capital] will fall within a range of approximately 8 to 14 percent."[45] In their history of the World Bank, Mason and Asher describe how the Bank's areas were not sufficiently sensitive to the estimation of projects' cost of capital, so that in general, "if Bank projects promise an internal rate of economic return of 10 percent—or even better of 12 percent—they are considered acceptable."

By the 1970s, the rate of 10% had become the "traditional method" used by the World Bank's Operations Evaluation Department. A project was considered satisfactory "based on achievement of at least a 10 percent economic rate of return (ERR), or other significant benefits if the economic rate of return is lower, or an evaluator's qualitative judgment about performance if no ERR has been calculated."[46] In the case of the IDB, the 1981 Operational Policies Manual, section OP-302, already stipulated using the rate of 12% for evaluating its projects, which continues to this day.

As history shows, the rate of 12% currently used by the IDB must have been taken from 1950s literature and is based on very old project evaluation techniques, while also assuming that benchmark rates have remained static for more than 50 years. When the 10% to 12% practice began to establish itself as a standard, the methodological problem was already recognized, as indicated by the concern of Mason and Asher: "It is… remarkable how frequently 10 percent turns out to be the opportunity cost of capital no matter what economy is involved or what the year of estimate."[47] It is illustrative to see how the traditional 12% method is inconsistent in such a volatile global financial system. While determining the discount rate for development projects is not easy, it is clear that this rate cannot have remained constant over the last fifty years.

**Figure 3. Six-month LIBOR rate and the 12% method: 1963-2007**




There are various methods for estimating the social discount rate, such as the marginal social rate of time preference model, weighted social opportunity cost, the shadow price of capital, or the decreasing social discount rate over time. All of these methodologies leave open the possibility of changes over time, and suggest that in recent years, the average social discount rate may be close to 7%.[48]

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45 Edward Mason and Robert Asher. *The World Bank since Bretton Woods*. The Brookings Institution, 1973. p. 242.

46 Devesh Kapur, John Lewis, and Richard Webb. *The World Bank, its First Half Century*. Vol. II, Brookings Institution Press, 1997. p. 421.

47 Edward Mason and Robert Asher. *The World Bank since Bretton Woods*, p. 242.

48 Anthony Boardman, David Greenberg, Aidan Vining, and David Weimer. *Cost-Benefit Analysis: Concepts and Practices*. Prentice Hall, 3rd ed., 2006.

3.30 Another dimension of the economic analysis evaluated that is closely related to the cost-benefit or cost-effectiveness analysis is risk analysis, and in particular, sensitivity analysis. Of all projects with cost-benefit analysis, 64.1% included a sensitivity analysis, while for projects with cost-effectiveness analysis, 34.5% included an exercise of this type. Just two projects received the highest score (4.8% of the projects with sensitivity analysis). The main limitation identified was the arbitrary introduction of variations (between 10% and 25% in most cases) in the total costs and benefits of the projects.

3.31 The objectives and economic analysis dimension, which evaluates the relationship between the project's objectives and the explicit benefits in the cost-benefit or cost-effectiveness analysis exercise, was rated good or acceptable in over 26% of cases. The absence of alternatives is a feature of over 84% of the projects reviewed, a figure similar to that found in the case of creditworthiness analysis in the financial analysis criterion. Moreover, the failure to provide financial flows was almost a constant in the evaluation, since over 90% of projects were graded as poor. A slightly better situation was observed in the identification of the fiscal impact on project agents, where 11.4% of projects were rated as acceptable, and 59% as fair.

**Table 2**
**Distribution of projects by analyzed dimensions and average score**

| Dimension of economic analysis (EA) | Criteria | In percentage | | | | Average score (range from 1 to 4, with 4 as highest score) |
|---|---|---|---|---|---|---|
| | | Good | Acceptable | Fair | Poor | |
| Objectives and EA | Relationship between project objectives and economic analysis | 24.7 | 1.8 | 3.6 | 69.9 | **1.813** |
| Alternatives | Counterfactual scenario | 2.4 | 5.4 | 7.8 | 84.3 | **1.259** |
| | Identification and evaluation of alternatives | 2.4 | 4.2 | 9.6 | 83.7 | **1.253** |
| Financial analysis | Estimation of financial flows | 2.4 | 1.8 | 5.4 | 90.4 | **1.163** |
| | Creditworthiness | 0.6 | 1.8 | 13.3 | 84.3 | **1.187** |
| CE or CB analysis | Cost-effectiveness analysis (CE) | 1.2 | 6.0 | 10.2 | 82.5 | **1.259** |
| | Cost-benefit analysis (CB) | 3.0 | 22.3 | 13.3 | 61.4 | **1.669** |
| Fiscal impact | Identification of the fiscal impact on project agents | 0.0 | 11.4 | 59.0 | 29.5 | **1.819** |
| Environmental impact | Consideration of the project's environmental impact | 0.0 | 0.0 | 2.9 | 97.1 | **1.029** |
| Risk analysis | Sensitivity analysis | 1.2 | 11.4 | 13.3 | 74.1 | **1.398** |
| | Switching value analysis by assumption and associated probability | 0.0 | 0.0 | 0.6 | 99.4 | **1.006** |
| | Variables to be monitored and mitigation measures | 0.0 | 0.6 | 0.0 | 99.4 | **1.012** |
| Institutional analysis | Stakeholders and their behavior, preferences, and incentives | 0.0 | 5.4 | 87.3 | 7.2 | **1.982** |
| | Weakness of institutions involved and mitigation measures | 6.0 | 4.2 | 49.4 | 40.4 | **1.759** |

3.32 In the case of analysis of the project's environmental impact, a binary rating was given, depending on whether the environmental costs and benefits had been included in the economic analysis. Thus, the study showed that over 97% of the projects received a poor rating, due to the fact that, in most cases, the environmental costs arising from the impact assessment were not incorporated into the cost-benefit analysis.[49] The last dimension evaluated was the institutional analysis. The stakeholder description criterion received a rating of good or acceptable in just over 5% of cases, while for the criterion of identifying institutional weaknesses and mitigation measures, the ratio was 10.2%.

## 2. Analysis by dimension

### a. Relationship between the project's objectives and the economic analysis

3.33 A clear definition of the project's objectives aims to limit the set of alternative courses of action that may be subsequently compared—in terms of their expected profitability—through formal economic analysis. It is also necessary for the project's objectives to be fully consistent with the benefits stated in the cost-benefit

[49] Bank policies explicitly state the requirement for an environmental impact analysis that must undergo a specific review process led by CESI. This rule requires the preparation of a specialized document specifying all technical analysis on environmental matters related to the project. Thus, despite the widespread use of the environmental impact assessment and the recognition of this impact in the loan documents, in most cases, it is not quantified or considered in the economic evaluation.

or cost-effectiveness exercise in order to be able to select the project that optimizes these indicators.

3.34 Considering the foregoing, a single criterion was analyzed for this dimension: the relationship between the project's objectives and the economic analysis. With respect to the projects, the review of this criterion showed that:

a. First, 24.7% received a good rating, since they established a direct relationship between the project's objectives and the benefits quantified in the cost-benefit or cost-effectiveness analysis.

b. Second, 1.8% of the projects qualified as acceptable, since despite presenting measurable objectives and having quantified the project's benefits in the cost-benefit/cost-effectiveness analysis, there was no direct relationship between them.

c. Third, 3.6% of the projects had a fair rating, since they limited themselves to presenting a measurable definition of the objectives.

d. Finally, 69.9% of the projects received a poor rating, since the objectives presented were not quantifiable.

**b. Consideration and evaluation of alternatives**

3.35 Preparing a quality economic analysis allows for the determination of the impact of the project—and of alternative interventions—by comparing the net benefits of the scenarios with and without the project. Thus, the consideration of alternative courses of action to the project, including the possibility of no intervention, represents the foundation of the economic analysis. Two criteria were used to analyze this dimension: the establishment of a counterfactual scenario and the consideration of alternatives other than executing the project. The results of the review show that:

a. Bank projects do not answer the question, "What would happen if the project is not executed?" in 84.3% of the cases. With respect to the existence of a counterfactual scenario, 15.7% of the sample mentions it, while, for all projects including a cost-benefit analysis, this ratio rises to 40.6%. However, when not only the mention of the counterfactual scenario is required, but also the presentation of the costs and benefits of not executing the project, these percentages are cut in half (to 7.8% and 20.3%, respectively).

b. The failure to mention alternatives other than execution of the project is a characteristic of 83.7% of the cases. Of all projects making such a mention (16.3%), only 40.7% actually present the alternatives considered. For projects with cost-benefit analysis, 28.1% of the total indicated that there were alternative courses of action to the project, while for projects with cost-effectiveness analysis, 82.8% did so. If one digs deeper and not only seeks a mention of the alternatives evaluated, but requires a description of them, only 15.6% of projects with cost-benefit analysis meet this requirement, while the ratio reaches 27.6% for projects with cost-effectiveness analysis.

### c. Financial analysis

3.36 Financial analysis identifies the project's net monetary flow from the point of view of the executing agency and allows assessment of the entity's capacity to meet its financial obligations and finance future investments. In contrast, economic analysis evaluates the project from the point of view of the economy as a whole, and therefore considers all costs and benefits to be borne and enjoyed by the members of society as a whole. The relevance of financial analysis lies in the fact that it can be used as a basis for economic analysis, through the subsequent correction of financial flows, particularly when the project involves changes in the revenues of the agency involved (receipts or others), or when a reduction in cost of the services provided is proposed.

3.37 Two criteria were evaluated in the financial analysis dimension: presentation of the financial flows and evaluation of the borrower's creditworthiness. The ratings presented in Table 2 can be supplemented with the following observations:

a. Project financial flows were shown by 9.6% of the projects. Of the total number of projects presenting flows, only one fourth broke down costs and revenues, adding comments or clarifications for the most relevant figures. It should be noted that all projects that presented these types of flows subsequently performed some kind of economic analysis (cost-benefit or cost-effectiveness), and that, in 68.8% of cases, they received ratings of good or acceptable.

b. The borrower's creditworthiness was analyzed in 15.7% of cases. Most often, this was centered around the presentation of fiscal accounts, without including the issue of debt. Thus, 76.9% of the projects that analyzed this criterion evaluated only fiscal accounts, and only one private sector investment project (loan PE-0216) examined the borrower's credit history with the Bank or other institutions, its credit rating, financial statements, and the breakdown and service of its debt.

### d. Cost-effectiveness or cost-benefit analysis

3.38 Cost-benefit and cost-effectiveness analyses[50] represent the two traditional tools of economic analysis. While the former allows the quantification and direct comparison of a project's benefits and costs, the latter is used to contrast the project's costs with some nonmonetary measure of the benefits, and thus to select the most effective alternative in terms of cost, i.e., the option with the lowest costs per unit of benefit. The two criteria analyzed for this dimension are precisely the two abovementioned tools, and their review leads to the following conclusions:

a. Of the Bank's projects, 46.4% include some type of economic analysis. In the case of cost-benefit analysis, 38.6% of all projects used this tool (64 projects), while the ratio was 17.5% (29 projects) for cost-effectiveness analysis. A

[50] Cost-effectiveness analysis included least-cost analysis, cost-effectiveness analysis in the strict sense of the term, and weighted cost-effectiveness analysis.

group of projects, representing 9.6% of the total, used both tools (16 projects). Here, it should be noted that the evaluation could be biased, as all the annexes supposedly accompanying loan documents were not always available, as discussed in Box 7.

**Box 7. Bias in ratings due to the lack of annexes for some projects**

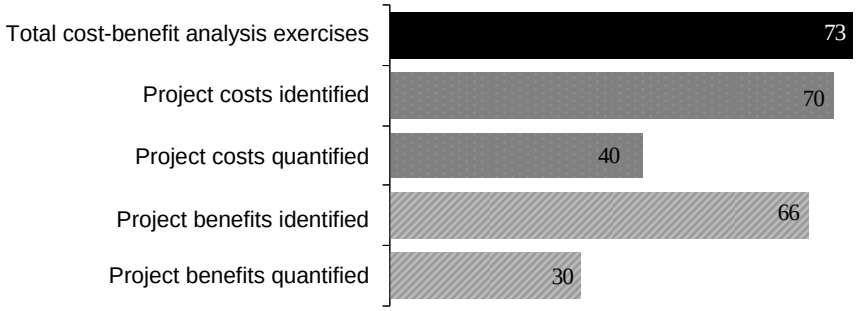
Of the 64 projects using cost-benefit analysis, the loan documents for 39 indicated that there was an annex including additional information on the economic analysis, but these annexes were actually available in only 20 cases.[51] Of the projects that only used cost-effectiveness analysis, only two loan documents made reference to an annex, one of which was available. Thus, **full access to information was not available for 20 projects** (12% of the total sample of 166). As an exercise to approximate the bias in the rating, scores were recalculated for 20 projects with cost-benefit analysis which did have annexes, but these were not considered in the evaluation (that is, as if there had been no access to them). The rating received was the same for 15 projects, while in five cases, the rating was lower. If we assume that the proportion of projects with a downward bias applies to the 19 projects without annexes, it could be said that five projects should have higher scores with respect to the cost-benefit analysis.

b. With respect to the quality of the projects' cost-benefit or cost-effectiveness analysis, 29.5% of the total number of projects obtained ratings of good or acceptable. An acceptable cost-benefit analysis was considered to be one presenting the project's NPV or its flows, while, in the case of cost-effectiveness analysis, at a minimum the alternatives evaluated had to be presented. Other important characteristics of the cost-benefit analysis are presented in Figure 4. Adequate quantification of the costs and benefits identified, as well as the flows of the NPV for the project; the calculation itself or presentation of the NPV for the alternatives to the project; and the quantification of the identified environmental costs or benefits, among other factors, were notably absent.

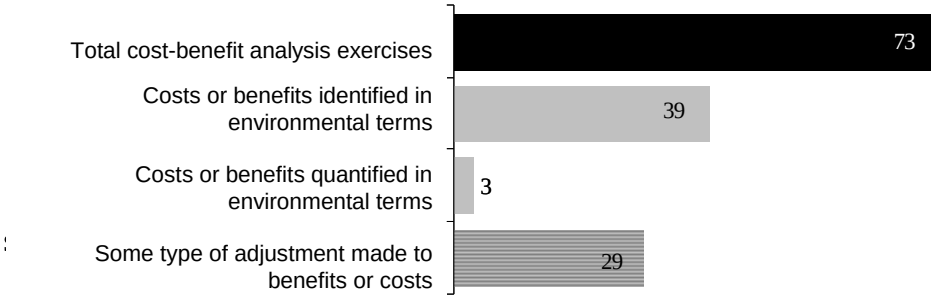
[51] It should be noted that although there were 20 projects without any type of economic annex, 7 had more than one economic annex. Therefore, 57 economic annexes were evaluated in all.

**Figure 4. Characteristics of the 73 cost-benefit analyses found in 64 projects**[52]

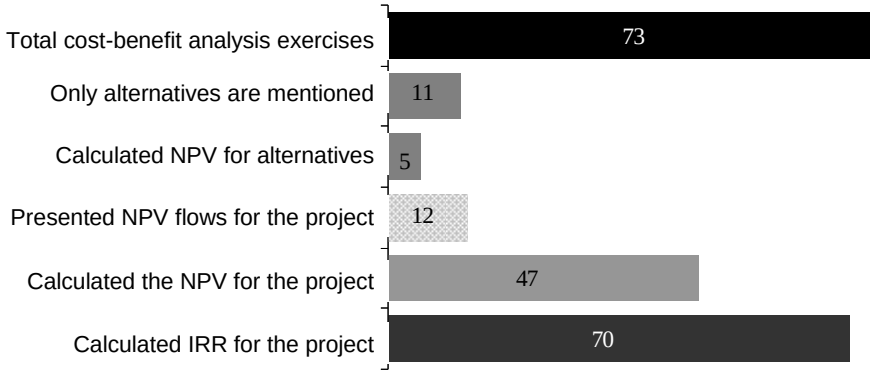
**(a) Identification and quantification of costs and benefits**




**(b) Environmental considerations and adjustments in flows**




**(c) Alternatives, IRR, and NPV**

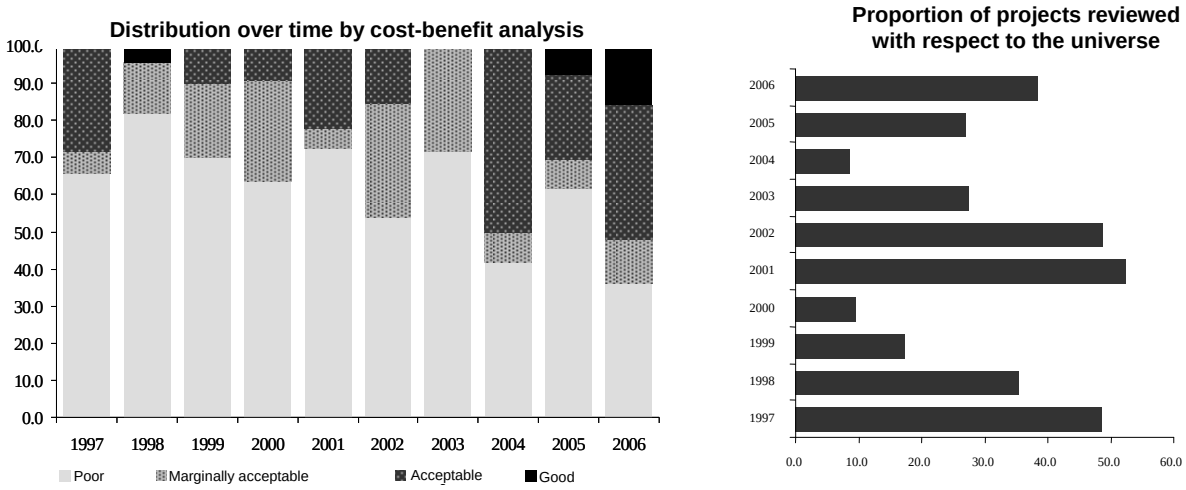



c. The main defect found in the projects including a cost-benefit analysis is that they only present the IRR, while for those including cost-effectiveness analysis, it is the failure to show the alternatives that were supposedly analyzed. Of the 64 projects with cost-benefit analysis, 22 only presented the

[52] Seventy-three components of 64 projects with cost-benefit analysis exercises were evaluated. Eight projects included more than one cost-benefit analysis.

IRR as the sole result (34.4% of all projects with cost-benefit analysis). The lack of alternatives in the case of cost-effectiveness analysis was even more significant, since this occurred in 14 of the 28 projects that made use of this tool (50% of all projects with cost-effectiveness analysis).

**Figure 5. Distribution over time of projects by rating of cost-benefit analysis and proportion of projects reviewed with respect to the universe in terms of amounts approved**




d. Finally, with respect to cost-benefit analysis, the figure above shows the distribution over time of the results of the project review. As indicated in the section describing the sample selection, the sample was selected in an attempt to replicate the distribution of the universe of the Bank's loans by sector and country. In this regard, the proportion of projects reviewed for each year is not the same. So, while the attached figure shows an improvement in recent years with respect to the quality of cost-benefit analysis, this should be considered as merely a reference.

**Box 8. Model cases of cost-effectiveness and cost-benefit analysis**

The economic analysis dimension of this evaluation made use of two criteria: cost-effectiveness analysis and cost-benefit analysis. For this reason, model cases were identified for each specified criterion.

**Cost-effectiveness analysis**

The evaluation of this criterion considered the identification of the method used to perform the analysis and the level of detail of the information presented. Thus, two projects received the highest score. First, the rehabilitation of downtown areas and land management support project in Cuenca, Ecuador (EC-L1021) received a rating of 4. This project's objective was to contribute to maintaining the vitality of the historic city center by improving the quality of life of the population in the downtown areas with the most significant physical, social, and economic deterioration. In this case, a least-cost evaluation was performed to select among alternatives yielding identical results or benefits, and the existing alternatives were presented.

The analysis considered technical specifications based on ordinances specific to the historic areas; for example, the façade of the structure selected for the remodeling of the market cannot be changed, and the streets must be paved with cobblestones. Nevertheless, in this latter case, the possibility of a single level, versus the difference in level between the streets and sidewalks, was considered. When no restrictions applied, material or construction alternatives were considered for the most significant components of the investment; for example, in the case of the public market center structures for the San Francisco passageway and the new 9 de Octubre public market center, savings of 5% and 30%, respectively, were estimated by selecting the metal option rather than concrete. At the same time, the option of constructing the parking facility beneath the Plaza Cívica would be one third more economical than building it on the surface; in this case, the lack of land and the demolition activities had a significant impact on costs.

The loan proposal for development of a satellite system and applications based on earth observation in Argentina (AR-L1017) also received the maximum score. This is due to the fact that the economic evaluation included a least-cost evaluation of the alternative technologies capable of providing benefits similar to those planned for the two agricultural applications (that is, reproducing accurate maps of soil humidity, reducing the margins of error of the recommendations of the National Institute of Agricultural Technology (INTA) to fertilize or apply phytosanitary controls). The alternative solutions considered were as follows: (i) the dielectric parameter method, based on the installation and operation of sensors to measure soil humidity based on its conductivity properties; and (ii) the hydrobalance method, based on the installation and operation of automatic weather stations to measure soil humidity. Results showed that, compared to these other technologies, the satellite system represented the least-cost alternative. Using a 10% discount rate, the present value of the investment, operation, and maintenance costs of the satellite system was US$132 million, while those associated with the dielectric parameter method and the hydrobalance method were US$902 million and US$197 million, respectively.

**Cost-benefit analysis**

Six projects earned the highest score on the economic analysis evaluation. These included the Rehabilitation of downtown areas and land management support project in Cuenca, Ecuador (EC-L1021), described above, which received a score of 4. This is due to the fact that an economic cost-benefit analysis was performed based on specific yields that allowed the main individual benefits to be identified and quantified. These include freeing public space for recreation and making better use of underused areas in public plazas and markets; reduction of cleaning and maintenance expenses for public places; less property damage from criminal acts and traffic accidents; enhanced welfare due to improvements in perception of security; savings in costs of operating and maintaining vehicles, and drivers' time; profit on parking services and a childcare facility-dining hall; fewer losses due to improper handling and storage of merchandise; reassignment of police personnel to prevention duties; improvement in public welfare by reducing disease associated with improper sanitary handling of food products; cultivation of knowledge by facilitating access to information; establishment of baselines for the development of statistics to improve the efficiency and effectiveness of social policies; lower municipal expenses by avoiding actions to penalize improper use of public space; higher productivity of vendors, as well as increased welfare by improving their working conditions; lower incidence of respiratory disease by reducing environmental pollution; and increased productivity of tourism resources. Moreover, costs were calculated for each component and project, and the least-cost alternative was selected for the economic evaluation. Thus, over a ten-year period, these benefits would allow the recovery of approximately 95% of the costs associated with the project, since according to this analysis, the project's NPV was US$465,227, while the IRR was 10.83%.

A cost-benefit analysis was also conducted based on real estate prices. After the major decline in 2002, real estate prices in the 9 de Octubre market and Plaza San Francisco sectors recovered quickly, unlike the rest of the Historic Center. This is largely due to the fact that these areas remained very attractive for business activities: 80% of properties sold were for commercial purposes. In the San Francisco area, the increase in prices can also be explained by the actions taken with respect to the 10 de Agosto

market (bordering the plaza), which relocated informal vendors into a new public market center. In this context, real estate agents indicated that the physical, social, and economic improvements to be provided with the implementation of the project (primarily security, availability of parking, cleanliness, and order) could drive an increase in real estate prices of 30% in the 9 de Octubre market area, and in excess of 20% in the Plaza San Francisco area. Thus, the approximately 680,000 square meters affected (directly and indirectly) by the project would undergo an appreciation of US$23.2 million, providing strong justification for the project, while increases of approximately 22% and 15% would ensure the profitability of the operation. As an additional frame of reference, in the 10 de Agosto market area, where the 2004 intervention was much more limited than those planned for the 9 de Octubre market and San Francisco, prices increased more than 6% over the Cuenca average (2003-2005 period); moreover, when only considering 2004-2005, the differences are much greater. Thus, using the costs mentioned above and considering the price increase resulting from a survey conducted, an NPV of US$4,628,433.64 and an IRR of 48% were obtained, while for a minimum necessary scenario, an NPV of US$17,316.01 and an IRR of 12.2% were obtained.

It is important to note that a financial analysis was also prepared for private projects. Even in a downside scenario, the receipts generated by the parking facilities exceed their operating expenses. Nevertheless, in a low-end conservative scenario (full capacity between six and seven hours per day, at the lowest market rate) the IRR is nearly 9%.

### e. Fiscal impact

3.39 Analysis of fiscal implications allows the identification of stakeholders who benefit and are hurt by project execution. Thus, those who pay and receive taxes, subsidies, and transfers can be distinguished. This was the only criterion evaluated in this dimension. No projects qualified as good: 11.4% of all projects were ranked as acceptable; 59%, fair; and 29.5%, poor. No project received the highest score because the stakeholders' profits and losses were not quantified. The vast majority of projects qualified as fair, since rather than clearly identifying the stakeholders' profits and losses in fiscal terms, they only mentioned the costs and benefits, usually of the beneficiaries, based on which some fiscal impact can be inferred.

### f. Environmental impact

3.40 Economic analysis should internalize the externalities caused by the project's execution. Among them, one of the most important is the spillover effect relating to the environmental costs associated with the evaluated intervention strategies. In this regard, this dimension evaluates a single criterion that analyzes whether, in those cases where environmental impacts were identified, these losses were accounted for in the cost-benefit analysis. For this reason, the score given was either a 1 or a 2, depending on the quantification of the environmental benefits and costs. Thus, the results show that 2.9% of the projects subject to environmental assessment[53] were rated as good, and 97.1%, as poor. The low percentage of projects receiving the highest grade can be explained because this group of projects did not include the

[53] Unlike the other criteria analyzed, the total number of projects on which the percentages are based was 104 (and not 166), due to the high number of cases in which an environmental impact assessment was not applicable.

environmental costs resulting from the impact assessment, or the cost of the proposed mitigation measures, in the cost-benefit analysis.

### g. Risk analysis

3.41 Risk analysis is a necessary component of traditional economic analysis (cost-benefit or cost-effectiveness) allowing one to analyze to what extent variations in the assumptions put forward for variables of interest can impact project execution and the achievement of its targets. Thus, risk analysis not only contributes to mitigating the pernicious effects of the identified risks, but also to neutralizing them. The lack of solid risk analysis is recognized as one of the main causes for the gap existing between the IRR expected at the outset of the project and that calculated upon completion of its implementation.

3.42 The risk analysis dimension incorporated three criteria that have been evaluated in the project review: (i) sensitivity analysis, (ii) switching value analysis for each assumption and associated probability, and (iii) identification of variables to be monitored and mitigation measures. The results of the analysis indicate that:

a. Sixty-four point one percent (64.1%) of projects with cost-benefit analysis and 34.5% of those with cost-effectiveness analysis performed a sensitivity analysis. The main feature of these analyses is that they simply apply a percentage increase or decrease to the project's profitability indicators for the expected costs and benefits. Of the sensitivity analyses performed, 51.2% consisted solely in cost increases, benefit reductions, or some combination thereof. In 44.2%, a sensitivity analysis was performed on the primary profitability indicators, such as the IRR or NPV, with arbitrary or exogenous variations in the parameters for which there was uncertainty. In just 4.7% of the total, that is, in two projects, sensitivity exercises were done with modifications in the parameters based on past behavior or future projections. A more detailed description of the exercises conducted appears in Box 9.

**Box 9. Sensitivity analysis in Bank projects**

In the vast majority of cases, sensitivity analysis consisted in arbitrary modifications of the projects' costs and benefits. Thus, **25 projects included differing cost increases, with the most common variations being 10%, 20%, or 25%**. In 15 of the cited projects, and in two other projects, arbitrary reductions were made to the benefits, also in the abovementioned proportions. There were four projects for which delays in the project startup were simulated (one or two years), six in which unexpected increases in investment resources were considered (10%, 20%, or 30%), seven with changes in demand, and three with delays in the project's benefits. Finally, 13 projects were also found with more accurate and specific sensitivity exercises. These included changes in harvest yields (HA-0016), changes in rates (EC-L1021 and BR-0249), changes in occupancy times (EC-L1021), financial factors[54] (BO-L1002), unsupplied energy (PR-L1010), probability of an event every 100 years (EC-L1003), expected value of fruit and vegetable production (GU-0133), elasticity of demand (BR-0249), and availability of water (PN-0030), among others.

[54] These include actual expenses for operation and maintenance, the amount of sanctions above the baseline situation, the effects of the exchange rate, and the fluctuation of interest rates.

3.43 Only one project performed a switching value analysis.[55] This occurred in the case of identifying variables that had to be monitored and mitigation measures. The project with switching values (BA-0019) calculated the maximum variations in costs and benefits that gave the project a net present value of zero, but the exercise was not done on the flow parameters, and thus it received a grade of marginally acceptable. In the case of the project that presented variables that had to be monitored and mitigation measures (PR-L1010), their cost was not quantified, and therefore it received a grade of acceptable. It should be noted that in no case was the selection of the parameters subject to monitoring or the determination of the frequency of this oversight based on a risk analysis.

3.44 Despite the fact that loan documents, in general, devote significant attention to the risks associated with the institutional capacity of the executing agencies, very few projects include the risk assessment in the sensitivity analysis. In general, the assumptions on the basis of which projects are designed—such as the government's implementation capacity, macroeconomic climate, availability of funding for local costs (local counterpart fulfillment), as well as other key operational considerations—are not included in the analysis, and this prevents the assessment of the impact of these factors on the project's main performance indicators.

### h. Institutional analysis

3.45 The institutional capacity evaluation is perhaps, along with the risk analysis, one of the most relevant dimensions of the economic analysis. The ability to identify and characterize the institutions and stakeholders involved allows for the determination of the existing limitations for successful execution, as well as any potential conflicts or resistance that may arise. Clearly, this information is necessary to take measures to ensure that the pursued objectives are achieved.

3.46 Considering the foregoing, the following criteria were analyzed: (i) identification of each stakeholder, as well as their behavior, preferences, and incentives; and (ii) identification of the weaknesses of the involved institutions and mitigation measures. The results of the review show that:

a. Of the projects, 87.3% provided a superficial identification of the stakeholders in the reform supported by the loan. While this identification took place in 154 cases, in 94.2% of them, the level of analysis did not determine the relationship of each stakeholder with the process of change proposed by the project in terms of inputs, outputs, and outcomes, or indicate their preferences or incentives.

b. Despite the marked relevance of the executing agencies' capacity to move a project forward satisfactorily, 89.8% of the projects reviewed did not analyze this issue in any depth. Forty point four percent (40.4%) of the projects simply

[55] This analysis was only considered for projects with economic flows, since private sector projects were found that used this exercise solely for financial flows.

made no mention of the issue, while 49.4% did identify weaknesses, but only generally, and just 4.2% of the total detailed the institutional weaknesses found. Six percent of the projects received a grade of good, because, in addition to providing a detailed description of the projects, they provided mitigation measures related to the indicated problems.

**Box 10. Model case for institutional analysis**

In 2006, the Bank granted an investment loan to the Government of Ecuador whose objective was to contribute to maintaining the vitality of the city's Historic Center by improving the quality of life of the population in the downtown areas with the most significant physical, social, and economic deterioration (Rehabilitation of downtown areas and land management support project in Cuenca, Ecuador, EC-L1021).

Its objectives would be achieved by containing and rehabilitating these areas, with emphasis on the 9 de Octubre and San Francisco sectors, through the following actions: (i) rehabilitation and construction of the urban infrastructure necessary to empower and complement the city's **Networks of Community Market Centers (RCCP)** and the reclamation of the recovered public space, improving the environment, security, and habitability in the area; (ii) support for formal and informal vendors so they can improve their businesses, with incentives for private investment and emphasis on microenterprises and greater demand in the area; and (iii) institutional strengthening of the Municipality in aspects related to the project's actions, with emphasis on the management and administration of the RCCP and public space in general. In terms of economic analysis, the loan proposal was considered a model project due to the specificity of the primary criteria evaluated for this section.

- ***Stakeholders and their behavior, preferences, and incentives.*** The study identified the project's stakeholders as well as its benefits. They include the residents of Cuenca's traditional downtown area, the citizens of Cuenca, the tourists who visit the Historic Center, and the direct beneficiaries such as residents, formal and informal vendors, and their families, and entrepreneurs, among others. The project's executing agency, the Municipality of Cuenca, is also identified with the support of an executing unit, reporting directly to the mayor's office, and the secondary executing agencies involved in each of the project's components. For this reason, the project received a rating of 3, since the most relevant stakeholders are identified along with their respective preferences and incentives.

- ***Weakness of involved institutions and mitigation measures.*** The loan proposal includes an assessment of the executing agency's capacity. It notes that during project preparation, an analysis of the Municipality's strengths and weaknesses was performed on aspects relevant to the operation. The results showed that the Municipality had limited experience in the execution of projects involving: (i) socioeconomic and institutional components associated with works; (ii) involvement of various sectors, including the private sector and the tourism sector; (iii) IDB procedures; and (iv) the involvement of various municipal agencies (planning, social, economic, urban, Historic Center, among others). For this reason, a centralized execution mechanism was chosen to reinforce the municipal capacity in these areas. A risk analysis was also performed, and it provided a detailed evaluation of the Municipality's institutional capacity, the conclusions of which reinforced the results mentioned above. Basically, it was possible to establish that one of the main risks facing the operation was the institutional weakness of the Municipality, with emphasis on the nonexistence of an organization that would allow it to administer and manage the city's network of public market centers. For this reason, the primary activity of the proposed institutional strengthening component is the creation of this entity. Executing units for each of the project's components were also identified and their institutional capacity was briefly addressed. Likewise, the project proposes some measures to mitigate the institutional weakness and indicates that studies were commissioned to define new administrative systems for the Municipality and other institutions. Since the institutional weakness was only identified in detail for the primary executing agency, and quite vaguely for the other institutions and the proposed mitigation measures, the rating assigned was a 2.

Therefore, on average the project received a satisfactory grade of 2.75 out of 4 for the institutional capacity analysis.

### 3. Analysis by sector and country

#### a. Analysis by sector

3.47 While the selection of the sample sought to replicate, in principle, the distribution of the Bank's portfolio by sector, the same level of representation was not achieved for all sectors. Thus, in 12 sectors, more than 20% of the respective portfolio was reviewed; in four, between 10% and 20%; and in two, less than 10%. For this reason, in the results presented below, the sectors are classified according to their level of representation.

3.48 In this regard, the first analysis for each sector sought to determine how many of the 14 criteria reviewed[56] had a nigh percentage of projects rated as satisfactory (grades of good and acceptable). Thus, it was found that the highest rated sectors—in relative terms—were agriculture and rural development, housing and urban development, and energy.[57] For these three sectors, in at least half of the existing criteria (between seven and nine), there was a high percentage of satisfactory results (over 10% of projects in each sector), while in the rest of the sectors, in two thirds or more of all criteria (9 of 14 criteria), there was a low percentage of satisfactory results.

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[56] From the relationship between the project's objectives and the economic analysis to the weakness of the institutions involved and the mitigation measures.

[57] In these three cases, more than 20% of each sector's portfolio was reviewed. The ratios were 45.5%, 30.9%, and 22.8%, respectively.

**Table 3**
**Number of criteria evaluated considered satisfactory by sector**

| | Number of criteria evaluated (total 14) with… | | |
|---|---|---|---|
| | **… less than 10% of projects with satisfactory ratings** | **… between 10% and 30% of projects with satisfactory ratings** | **… more than 30% of projects with satisfactory ratings** |
| Agriculture and rural development** | 7 | 6 | 1 |
| Foreign trade | 14 | 0 | 0 |
| Finance/capital market development* | 12 | 0 | 2 |
| Multisector credit and preinvestment* | 14 | 0 | 0 |
| Science and technology** | 10 | 2 | 2 |
| Housing and urban development** | 5 | 8 | 1 |
| Education** | 11 | 3 | 0 |
| Energy** | 5 | 6 | 3 |
| Industry** | 14 | 0 | 0 |
| Social investment** | 13 | 1 | 0 |
| Microenterprises** | 13 | 0 | 1 |
| Sanitation | 9 | 4 | 1 |
| Environment and natural disasters** | 11 | 3 | 0 |
| Private sector development** | 13 | 1 | 0 |
| Reform and modernization of the State** | 14 | 0 | 0 |
| Health* | 11 | 2 | 1 |
| Transportation** | 10 | 3 | 1 |
| Tourism* | 10 | 0 | 4 |

* Sectors in which between 10% and 20% of each sector's portfolio was reviewed
** Sectors in which over 20% of each sector's portfolio was reviewed

**Table 4**
**Percentage of projects with satisfactory ratings for some criteria by sector**

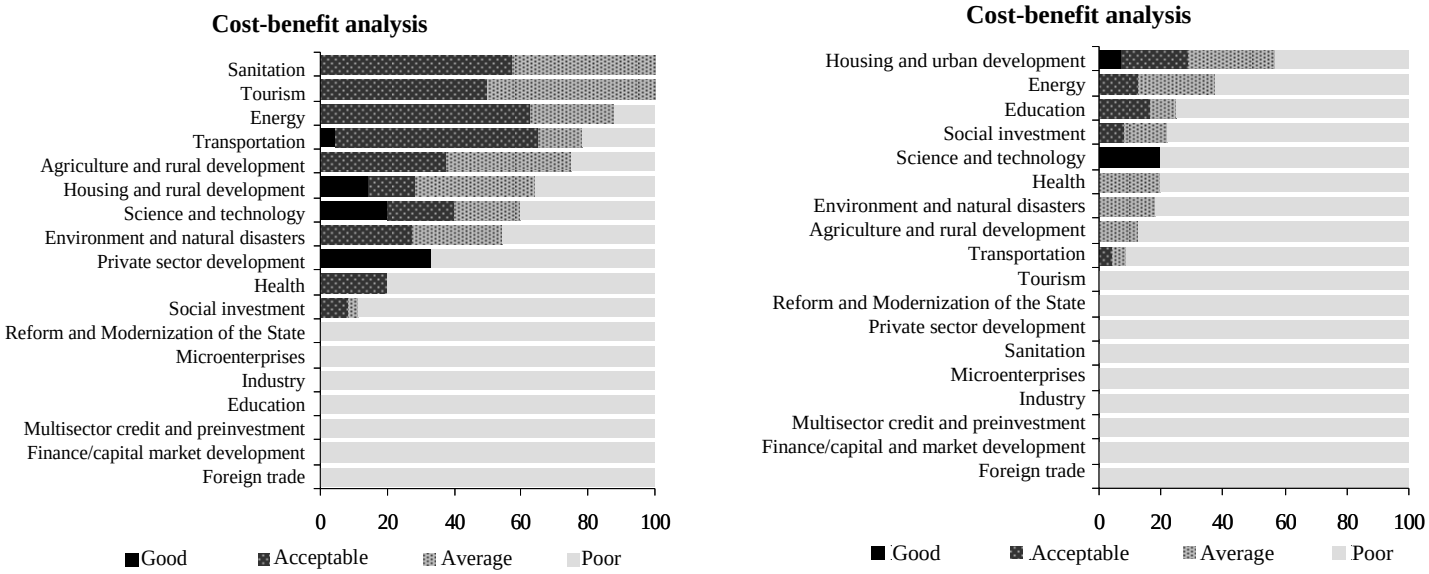
| | Percentage of each criterion with satisfactory ratings (Good and Acceptable) | | | | |
|---|---|---|---|---|---|
| | **Cost-effectiveness analysis (CE)** | **Cost-benefit analysis (CB)** | **Sensitivity analysis** | **Stakeholders and their behavior, preferences and incentives** | **Weakness of involved institutions and mitigation measures** |
| Agriculture and rural development** | 0.0 | **37.5** | 12.5 | 0.0 | 25.0 |
| Foreign trade | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Finance/capital market development* | 0.0 | 0.0 | **33.3** | 0.0 | 0.0 |
| Multisector credit and preinvestment* | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Science and technology** | 20.0 | **40.0** | **40.0** | 0.0 | 0.0 |
| Housing and urban development** | 28.6 | 28.6 | 14.3 | 14.3 | 7.1 |
| Education** | 16.7 | 0.0 | 0.0 | 0.0 | 0.0 |
| Energy** | 12.5 | **62.5** | **50.0** | 0.0 | 12.5 |
| Industry** | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Social investment** | 6.8 | 6.8 | 0.0 | 6.8 | 11.4 |
| Microenterprises** | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Sanitation | 0.0 | **57.1** | 14.3 | 0.0 | 0.0 |
| Environment and natural disasters** | 0.0 | 27.3 | 27.3 | 0.0 | 9.1 |
| Private sector development** | 0.0 | 16.7 | 0.0 | 0.0 | 0.0 |
| Reform and modernization of the State** | 0.0 | 0.0 | 0.0 | 3.2 | 9.7 |
| Health* | 0.0 | 20.0 | 0.0 | 0.0 | **40.0** |
| Transportation** | 4.3 | **65.2** | 21.7 | 8.7 | 8.7 |
| Tourism* | 0.0 | **50.0** | **100.0** | **50.0** | 0.0 |

* Sectors in which between 10% and 20% of each sector's portfolio was reviewed
** Sectors in which over 20% of each sector's portfolio was reviewed

3.49 A second way to analyze sector results was to study in detail some of the primary considerations evaluated, as noted in Table 4. In this case, the decision was made to analyze some of the criteria corresponding to the dimensions of the economic analysis, risk analysis, and institutional analysis. The most significant results show that, in the sectors related to infrastructure—energy, sanitation, and transportation—almost two thirds of the projects had a satisfactory rating for the cost-benefit analysis. Only in the energy sector did half the projects complement the foregoing analysis with a sensitivity analysis. With respect to the institutional analysis, the health and tourism sectors presented the best results.

3.50 The last way to address the sector analysis is the detailed presentation of the rating of the cost-benefit and cost-effectiveness analysis for the 18 sectors analyzed, as seen in Figure 6. In principle, no type of analysis was found in seven sectors: (i) foreign trade, (ii) financial and capital market development, (iii) multisector credit and preinvestment, (iv) education, (v) industry, (vi) microenterprises, and (vii) reform and modernization of the State. On the other hand, five sectors made relatively significant use of economic analysis (75% or more of the total number of projects): (i) sanitation, (ii) tourism, (iii) energy, (iv) transportation, and (v) agriculture and rural development.

**Figure 6. Distribution of projects by sector and rating received**




**Box 11. Model cases of cost-effectiveness and cost-benefit analysis in health and education**

**Health: Cost-benefit of project EC-L1025**

In 2006, the Bank granted loan EC-L1025 for a project in support of universal health insurance in Ecuador, targeting the country's two poorest quintiles (with emphasis on the indigenous population), with the objective of improving the quality of and access to health services by creating a new institution (SODEM), responsible for this sector of the population. As secondary objectives, it aimed to strengthen the network of providers (public and private), by providing them with a monetary incentive for their efficiency in terms of date of delivery, quality, and costs. The cost-benefit analysis received a grade of acceptable and was considered the best among the projects in the health sector. This is due to the fact that the IRR and NAV were calculated and the project's benefits and costs were identified. The project did not receive a better rating because, although it mentioned that the program had potential benefits and that the estimates suggested that a package targeted on preventing neonatal or infant deaths could yield up to 109% per dollar spent, implying a benefit of over US$350 million (in net present value) for the project in the form of savings of expenses incurred by the beneficiary population, it did not detail the process followed to arrive at this estimate.

**Education: cost-effectiveness of projects ES-0159 and ME-0052**

Two projects received the highest cost-effectiveness rating in the education sector. First is loan ES-0159, granted in 2005 to El Salvador, whose objective was to provide more opportunities for the most vulnerable populations to enroll and stay in school and complete the cycle, expanding the supply of education in preschool and basic education, making it more flexible, and improving the conditions for learning and coexistence in schools. The cost-effectiveness analysis received a grade of acceptable because a least-cost analysis was performed, it was mentioned that the project was the most cost-effective alternative, and the alternatives in the cost-effectiveness analysis were expressed in terms of the same outcome. Nevertheless, while this analysis was done to evaluate one of the actions to be implemented within the project (outsourcing the teaching of English), no support was provided for the assumptions or the methodology followed to obtain these indicators.

The second project is the loan to Nacional Financiera S.N.C. for a distance education program (ME-0052), whose purpose was to expand the middle-school education offering for populations that the traditional system has been unable to serve efficiently. The program would strengthen distance education methods in order to extend the offering. The economic analysis performed included a least-cost analysis, under which the alternatives produced identical outcomes, but the fact that the project was the least cost alternative was not demonstrated.

3.51 As noted, there are major differences between sectors in the ratings given. Likewise, significant differences can be found within the sectors themselves if the tools used to conduct the cost-benefit or cost-effectiveness exercises are analyzed in greater detail. This is reflected in Box 12, which describes the lack of uniformity in the criteria for applying the cost-benefit analysis in transportation sector projects.

**Box 12. Lack of uniformity in cost-benefit analysis in the transportation sector**

The 23 projects reviewed in the transportation sector were grouped based on the similarity of the objectives proposed in order to facilitate their comparison with respect to economic analysis. Thus, the following groups were identified: (i) those related to the increased quality and efficiency of service through institutional, administrative, regulatory, and road safety reforms, representing 9 of the 23 projects mentioned; (ii) those related primarily to the rehabilitation and maintenance of roads, representing 12 of the 23 projects; and (iii) those related specifically to the construction of another type of infrastructure, such as airports and border crossings, representing the remaining two projects. In the case of the **road rehabilitation and maintenance project group, 10 of the 12 projects included a cost-benefit analysis**. It is important to note that no rationale was found for why the remaining two projects (CH-0179 and CO-0058) had not performed a cost-benefit analysis as in the other cases.[58] Seven projects were also based on the HDM model, usually used to assess transportation costs.

All of the projects with a cost-benefit analysis calculated the project's NPV and IRR, in addition to identifying the project's benefits and costs. In many cases, this identification (in a description) did not involve a quantification, that is, the use of figures. **In the case of the benefits, only three projects showed the applicable values** (GY-0076, BO-0200, and BR-L1033), while the description was usually related to nonincremental benefits, a result of the savings in resources such as operating costs for motor vehicles and travel time (7 of the 10 projects).

In the case of costs, there was only one project that did not quantify anything (PN-L1010); nonetheless, **various adjustments were made to the flow of costs in four of the 10 projects**. For example, one project calculated the economic value of the unskilled labor used and made adjustments based on the elimination of "taxes on wholly imported inputs" (NI-0146). Another case included "environmental improvements" and excluded taxes (BR-0295). Another project reflected "the impact of an undervalued exchange rate (10%) on the cost of imported components, as well as the impact on wages in view of the unemployment level" (HO-0164). Along the same line, one project mentioned the use of economic prices and the exclusion of taxes (BR-L1033). Finally, the five remaining loans did not make any kind of economic adjustment to the costs used in the economic flow (NI-0170, ES-0129, GY-0076, BO-0200, and BL-0001).

### b. Analysis by country

3.52 The analysis by country is subject to the same proviso made for the case of sector analysis. Some countries have a higher proportion of their project portfolio reviewed than others. Therefore, the following tables indicate whether work was done with more than 20% of the portfolio of each country (17 countries), between 10% and 20% (5 countries), or less than 10% (2 countries). The first two of the three exercises used in the sector analysis were replicated.

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[58] The case of project CO-0058 was not considered cost-benefit analysis, since, unlike the others, it makes no explicit mention of the value of any profitability indicator for the project. Thus, on the economic analysis, it only states that "…the works included during the preparation and those in the first year of the project have demonstrated their economic feasibility with an economic return above the threshold rate of 12%." Loan proposal CH-0179 is similar in this regard, since it fails to explicitly provide a profitability indicator for the project.

**Table 5**
**Number of criteria evaluated considered satisfactory by country**

| | Number of criteria evaluated (total 14) with… | | |
|---|---|---|---|
| | **… less than 10% of projects with satisfactory ratings** | **… between 10% and 30% of projects with satisfactory ratings** | **… more than 30% of projects with satisfactory ratings** |
| Argentina** | 8 | 5 | 1 |
| Barbados* | 12 | 0 | 2 |
| Bahamas | 14 | 0 | 0 |
| Belize** | 8 | 5 | 1 |
| Bolivia** | 5 | 8 | 1 |
| Brazil** | 8 | 5 | 1 |
| Chile** | 13 | 0 | 1 |
| Colombia* | 13 | 1 | 0 |
| Costa Rica* | 13 | 0 | 1 |
| Dominican Republic** | 12 | 2 | 0 |
| Ecuador** | 5 | 8 | 1 |
| El Salvador** | 8 | 5 | 1 |
| Guatemala** | 13 | 1 | 0 |
| Guyana** | 9 | 4 | 1 |
| Haiti** | 9 | 0 | 5 |
| Honduras** | 12 | 1 | 1 |
| Jamaica* | 14 | 0 | 0 |
| Mexico** | 9 | 5 | 0 |
| Nicaragua** | 10 | 3 | 1 |
| Peru** | 13 | 1 | 0 |
| Panama* | 10 | 4 | 0 |
| Paraguay** | 10 | 2 | 2 |
| Uruguay** | 9 | 3 | 2 |
| Venezuela | 12 | 2 | 0 |

* Countries in which between 10% and 20% of each country's portfolio was reviewed
** Countries in which over 20% of each country's portfolio was reviewed

3.53 In principle, for each country, we calculated how many of the 14 criteria reviewed presented a high percentage of projects evaluated as satisfactory (grades of good and acceptable). Despite having more categories in the distribution by country that in the sector distribution (24 versus 18), fewer categories (in this case, countries) could be identified that distinguished themselves from the rest for their high percentage of satisfactory grades. Thus, only two countries—Ecuador and Bolivia—had a significant number of criteria (9 of 14) with a high percentage of projects rated as satisfactory (over 10% of projects for each country).

3.54 For this reason, as in the World Bank project review in the 1990s, it can be noted that the main differences in the analysis quality ratings for IDB projects between 1997 and 2006 occur at the sector level rather than the country level.[59]

[59] It must be noted that the World Bank made the distinction at the regional, rather than the country level, as indicated in the document.

3.55 The detailed presentation of some of the instrument's criteria by country shows that there are not such marked differences as there are between sectors. In fact, there were three sectors which had a satisfactory rating for the cost-benefit analysis in nearly two thirds of the projects. In comparison, as can be seen in Table 6, there is only one country with a high percentage of projects reviewed having a satisfactory cost-benefit analysis.[60] For the other 23 countries reviewed, in the best case (Nicaragua) had a proportion of satisfactory projects of 44.4%.

**Table 6**
**Percentage of projects with satisfactory ratings for some criteria by country**

| | Percentage of each criterion with satisfactory ratings (Good and Acceptable) | | | | |
|---|---|---|---|---|---|
| | **Cost-effectiveness analysis (CE)** | **Cost-benefit analysis (CB)** | **Sensitivity analysis** | **Stakeholders and their behavior, preferences and incentives** | **Weakness of involved institutions and mitigation measures** |
| Argentina** | 15.4 | **38.5** | 23.1 | 15.4 | 0.0 |
| Barbados* | 0.0 | **100.0** | **100.0** | 0.0 | 0.0 |
| Bahamas | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Belize** | 20.0 | 20.0 | **40.0** | 20.0 | 0.0 |
| Bolivia** | 12.5 | 25.0 | 25.0 | 0.0 | 12.5 |
| Brazil** | 10.5 | **31.6** | 10.5 | 0.0 | 10.5 |
| Chile** | 0.0 | 0.0 | **50.0** | 0.0 | 0.0 |
| Colombia* | 0.0 | 0.0 | 0.0 | 0.0 | 20.0 |
| Costa Rica* | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Dominican Republic** | 0.0 | 0.0 | 0.0 | 25.0 | 25.0 |
| Ecuador** | 12.5 | **37.5** | 12.5 | 18.8 | 6.3 |
| El Salvador** | 12.5 | 25.0 | 0.0 | 0.0 | **37.5** |
| Guatemala** | 0.0 | 8.3 | 8.3 | 0.0 | 8.3 |
| Guyana** | 0.0 | **40.0** | 20.0 | 0.0 | 20.0 |
| Haiti** | 0.0 | 0.0 | **33.3** | 0.0 | **33.3** |
| Honduras** | 9.1 | **36.4** | 9.1 | 0.0 | 9.1 |
| Jamaica* | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Mexico** | 28.6 | 14.3 | 14.3 | 0.0 | 0.0 |
| Nicaragua** | 0.0 | **44.4** | 11.1 | 0.0 | 0.0 |
| Peru** | 0.0 | 9.1 | 9.1 | 9.1 | 9.1 |
| Panama* | 0.0 | 14.3 | 14.3 | 14.3 | 14.3 |
| Paraguay** | 0.0 | **40.0** | 0.0 | 0.0 | 20.0 |
| Uruguay** | 0.0 | **33.3** | 0.0 | 0.0 | 16.7 |
| Venezuela | 0.0 | 25.0 | 0.0 | 0.0 | 0.0 |

* Countries in which between 10% and 20% of each country's portfolio was reviewed

** Countries in which over 20% of each country's portfolio was reviewed

[60] This is the case of Barbados, where only one project was reviewed and it received a grade of acceptable for the cost-benefit analysis.

# IV. CAUSES OF THE LOW QUALITY OF ECONOMIC ANALYSIS

4.1 A survey[61] and a set of structured interviews[62] were conducted with Bank staff (at Headquarters and in the Country Offices) and counterparts in borrower countries in order to validate the results of the analysis and investigate the possible causes of the results presented in the preceding section.

4.2 Among the reasons explaining the lack of quality economic analysis in loan proposals, the following stand out: the incentive structure provided by the institution's policy framework, weak economic and sector work, the nature of the approval process, the disconnect between the Bank's portfolio quality and risk rating, the Bank's status as a preferred creditor, and the organizational separation between project design and execution.

## A. Incentive structure

4.3 The lack of incentives to mobilize the organization around development results is as important as the presence of incentives that make the organization prioritize other types of activities. The consistency between the Bank's mandate, institutional strategy, organization, procedures, and allocation of specific resources is what allows there to be compatibility between what is said is done and what is actually done. This consistency is what provides the set of formal and informal incentives that govern the institution's actions.

### 1. Policies

4.4 The current body of institutional policies provides the formal incentive structure that shapes the conduct of the stakeholders comprising the organization. On one hand, we have policies that define the form and content of the project reports, and on the other, those that define the evaluation parameters on the basis of which the review bodies certify that these loan documents meet the guidelines ensuring their quality and evaluability.

4.5 The shortcomings in the quality of the economic analysis of projects can be attributed to the shortcomings in the policies on the management of the project cycle, the shortcomings in the enforcement of the policies, and the shortcomings in compliance with the policies. That is, the low quality of the economic analysis of projects may be a consequence of the actions undertaken by those who set the policies, by those who represent the review and approval bodies, and by those who draft the loan documents.

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61 Annex VII shows the results of a survey designed and administered to all Bank staff involved in the design and preparation of projects, as well as all of the Institution's division chiefs. It was sent to a total of 700 staff at Headquarters, and had a response rate of 18% (124 people), quite a good rate compared to other similar exercises undertaken by the Office of Evaluation of Oversight.

62 Interviews were conducted with 30 staff members and 25 sector specialists from the Country Offices and government counterparts with experience in project design and management. Several division chiefs and one manager were also interviewed.

4.6 In this regard, the 2005 evaluability study[63] analyzes the preparation and managerial review process that takes place prior to project approval. This document indicates that:

*"The operational manuals for project preparation and the managerial review process prior to approval still pose requirements of a generic nature and do not specify standards of evaluability… The normative that are applicable to project report reviews do not consider the systematic utilization of evaluability standards that can serve as a reference in the process of preparation and review and as a formal incentive for the improvement of evaluability."*

The two main quality review bodies, the Management Review Committee (CRG) and the Loan Committee (LC), pay little attention to the level of evaluability or the quality of the economic analysis of the loan proposals, showing a preference for the aspects strictly related to the risks of approving the project (compliance with fiduciary polices and administrative rules), as well as risks associated with loan disbursement eligibility.[64] Moreover, there is no system for monitoring the agreements reached in these review bodies, creating a disincentive for compliance with any agreements made.

4.7 The evolution of the project review process has been defined by the attempts to balance the objectives of timely approval and quality development,[65] through modifications in the degree of institutional independence existing between those who design the projects and those who verify their quality. In a 2002 report, OVE explains:

*"Until 1994, this process was based on a 'two key' system for project approval. The Bank's Operations Department held one key, while the Project Analysis Department held the other." … "During the financial crises of the 1980s, the Bank established an expedited one-key approach for the design of sector loans, giving the Department of Plans and Programs exclusive jurisdiction over this instrument. The reorganization of 1994 moved further in the direction of expedited approval, moving sector lending to the Regional Operations Departments while at the same time allowing them to incorporate the technical units formerly reporting to the Project Analysis Department. This consolidation of project preparation has probably increased the flexibility and responsiveness of the Bank, but at the cost of tipping the balance away from extensive documentation of anticipated results."*

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63 Document RE-333. *Analysis of Project Evaluability Year 2005*. OVE, 2006.

64 The limited focus of discussions in the CRG with respect to economic analysis can be explained because such discussions take place when the projects are in very advanced stages of preparation, when substantial changes to design elements can involve significant costs. Comments of a structural nature are valued much more in the preliminary stages, when the design elements are still in tentative form.

65 Document RE-260. *Development Effectiveness Report*. OVE. March 2002.

The experience of the World Bank seems to bear significant similarities.[66]

4.8 In the survey conducted, we found that 72% of those surveyed reported that the lack of clear internal policies and internal control mechanisms requiring compliance with the general guidelines for economic evaluation are one of the main factors limiting the quality of economic analysis. The explicit requirement for quality economic analysis in the rules of the Bank's operations manual would be a determining factor for this to be incorporated into the process of preparing and designing projects submitted for approval.

4.9 As indicated in Section II of this report, the policy has undergone marked deterioration with respect to the quality level required for economic analysis of projects submitted for approval. Currently, this policy has eroded to the point that, despite the fact that the preparation of an economic analysis is required in the analysis phase of the project cycle, no mention is made of the scope or the level of detail to be considered by project team members. In practice, this is more a recommendation than a binding factor for the conduct of those preparing the projects, as shown in the results of the analysis of the sample's 190 projects.

**2. Recognition of staff within the institution**

4.10 According to the results of the survey, the volume of loans approved is considered the most frequently used indicator for purposes of recognizing work, promotions, and/or pay raises of project team leaders and members with a frequency of 90%, followed by the speed and efficiency with which project approval is managed, with 82%. In a revealing response, 95% of staff consider that the quality of the economic analysis is of limited or no importance at all for the same purposes. This corroborates a prior study by OVE documenting that:

*"Managers in the operational departments have incentives linked to the number and amount of loans approved, not to studies produced."*[67]

4.11 Along this same line, research done by the World Bank[68] attempts to examine whether a reallocation of the institution's resources toward economic and sector work (ESW) could have a negative impact on loan volumes. The research proposes that if the approval of a large volume of loans by the Board of Executive Directors were a key factor for an official to earn promotions and develop his or her career, a movement of resources from ESW activities to preparation activities could be

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66 In 1995, a study by Devarajan, S., Lyn Squire, and Sethaput Suthiwart-Nareput, entitled "Reviving Project Appraisal at the World Bank," explained that the Central Projects Department, which was responsible for setting the standards and reviewing the appraisal reports, stopped performing these duties around 1982 and "the function of quality control was devolved to regional vice presidencies which were themselves the producers of the appraisal reports." At the World Bank, the need for quality control led to the creation of a Quality Assurance Group in 1997, which is an independent body, largely dependent on outside technical experts to determine "quality at entry."

67 Document RE-323. *Evaluation of the IDB's Studies.* OVE. 2006.

68 Klaus Deininger, Lyn Squire, and Swati Basu. "Does Economic Analysis Improve the Quality of Foreign Assistance?" October 1998.

expected, giving rise to quantity replacing the quality of the projects approved. The results obtained suggest that the variable that measures the number of employee-weeks devoted to loan preparation activities, excluding adjustment operations, seems to be 40% to 50% more effective in generating rewards and recognition than ESW activities. That is, project managers are willing to accept a moderate to significant decline in loan program quality in exchange for a modest increase in salary level. The study suggests that managers are prepared to allow a substantial reduction in loan program quality in exchange for a small increase in wages, or recognition, associated with the size of the loan program. The foregoing has also been corroborated for the IDB by its staff, who, when asked about the factors that adversely affect the quality of economic analysis, the majority (83%) respond that:

*"internal incentives favor a culture of approval over quality."*

4.12 These results follow naturally from an informal incentive structure that recognizes massive approval of projects as a virtue, even more in a context showing a reduction of net financial flows to borrower countries and a drop in multilateral institutions' market share.

4.13 The Bank faces a particularly difficult situation. Basically, because there are no established metrics for development objectives, which therefore, are not subject to systematic measurement. In fact, if development objectives were systematically measured, they would not be easily attributable within the project teams, and even if they were, the lag between the compensation and project execution would be sufficiently broad so as to weaken the links between the compensation system and meeting development objectives. Unlike development objectives, approval targets are easily quantifiable.

## B. Scant economic and sector work (ESW) and low demand for this output by project teams

4.14 A recent evaluation by OVE shows that the Bank's studies are low in number and in quality when compared to those produced by other multilateral lending institutions. [69]

*"…many studies are of low quality. A substantial number of studies (20%) made no use of primary or secondary data. Over half did not use a replicable, evidence-based methodology, and 3/4 did not provide policy implications that were logically consistent given the rest of the study. And as for the small subset of IDB studies that are published, the IMF and WB produce twice the publications per employee than the IDB, even though the average IDB publication is in journals of lower quality."*

Moreover, internal demand for these outputs is very limited, showing that this information is not being used in the design of programs and projects financed by the Bank. This evaluation finds that the limitations related to the low usage of the

[69] Document RE-323. *Evaluation of the IDB's Studies.* OVE. December 2006.

studies produced by the Bank are due in part to the low quality, limited relevance, restricted storage of the results, and high access costs associated with them.

4.15 The shortfall in the production and use of macroeconomic and sector studies runs contrary to the Bank's objectives. To the extent that the Bank's knowledge is not adequately managed, the efficient design of development strategies through dialogue with governments is hindered. Moreover, inadequate knowledge management also explains the absence of alternatives in the economic analysis of Bank projects, since the projects do not appear as results of a study diagnosing problems and the effectiveness of feasible solutions, but rather as partial solutions whose impact cannot be anticipated based on studies completed. The results of ESW activities are not immediate. In fact, on average, it is expected that they can have an impact on approved loan operations within four years of their development.

4.16 One of the main objectives of ESW is to identify the external factors that impact project performance and propose solutions to improve their design. Therefore, weak ESW activities lead to the Bank having additional problems anticipating and assessing the political and institutional risks to which the results achieved by the interventions are subject.

4.17 Country strategies should be documents that link the results of specialized studies to the program activity. Nonetheless, the study led by OVE on the evaluability of country strategies includes among their most common features: the general nature of their content; the lack of a clear strategic focus; the presence of numerous objectives or action areas, justifying almost any type of intervention; the limited depth of sector diagnostics; and the appearance of being written to justify a preconceived list of projects.[70] Although it always depends on the country in question, OVE finds, in general, that the strategies defined in these documents are not specialized diagnostics, with due specificity and analytical support, but rather general guidelines to orient resource allocation during the corresponding political cycle.

4.18 Despite the highlighted problems, through the interviews conducted with government counterparts in the three countries visited (Peru, Argentina, and El Salvador),[71] a level of assessment in this area has been noted. The authorities believe that ESW is highly useful for delimiting the development strategies set forth

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[70] In the opinion of the Research Department (RES), the problem with the country document is that it is based on the assignment of projects, and is later complemented with a macroeconomic framework that only seeks to provide a certain policy rationale for previously allocated loans, while lacking a strategic vision for the country. RES clearly favors a top-down strategy in programming and believes that the country documents are low-quality bottom-up constructs with respect to the country's strategic policies.

[71] These countries were selected because they provided certain representation by economic region and country size. Therefore, we have a large MERCOSUR country where Bank loans represent a relatively small portion of public debt, but are significant in terms of Bank assets; a medium-sized Andean Community country, and a small Central American Common Market (CACM) country, where the Bank represents one of the largest sources of resources, but at the same time is one of the countries with the lowest representation, in terms of nominal credit value, in the IDB's loan portfolio.

in their government plans. While the social liabilities to be addressed may be obvious to the regional authorities, the ways of addressing them are significantly less clear. This occurs particularly in low-income countries where the Bank is the main creditor. The interviews asked participants to compare the Bank's products with those of similar institutions and the primary difference, in the participants' opinion, is that the World Bank had clear advantages over the IDB in analytical and technical work; while the IDB had clear advantages over the World Bank in adapting projects to the environment and characteristics of each country.

4.19 In terms of the potential impact of ESW, a World Bank research study[72] found through a descriptive statistical analysis that the set of projects rated satisfactory and benefiting from high levels of ESW require significantly lower levels of preparation and supervision than other projects. At the same time, it was noted that projects considered unsatisfactory require 20% more preparation and 22% more supervision. The foregoing highlights the importance of investing more resources in the project design stage, where ESW adds greater value. Therefore, greater attention to ESW, while clarifying the rationale for interventions and allowing their economic feasibility to be valued in comparison to a set of alternatives, may result in better project design and efficient resource allocation in the preparation and supervision stages.

## C. The disconnect between the Bank's portfolio quality and risk rating

4.20 The Bank's credit risk rating has remained at AAA since its operations began. According to the rating agencies that evaluate the Bank, the strength of this rating is based on three fundamental factors. One provided by the nonborrowing members, another provided by the borrower members, and a third provided by the Bank's administration. The first element that supports the risk rating of the Bank's debt is the strength and commitment of its shareholders expressed in the form of paid-in and callable capital. The Bank's financial policies expressly limit the Bank's maximum borrowings to the amount of callable capital for nonborrowing countries. This structure is equivalent to an express guarantee by the nonborrowing countries on the Bank's borrowings. The second element, provided by the borrowing members, is the Bank's status as a preferred creditor. This status is a condition validated by the Bank's longstanding relationship with the borrowers, is recognized by the markets, and consists in the fact that the borrower countries consider their debt with the Bank as a priority (senior) with respect their other obligations. That is, the Bank is a preferred creditor in the sense that it is the first to collect (and lend) in difficult times. The third element, provided by the administration, is embodied in the Bank's financial policies and risk management capacity. The capital adequacy, price, credit risk, liquidity risk, market risk, and operational risk policies are considered by rating agencies as appropriate and conservative with respect to the Bank's line of business and scale of operations.

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[72] Klaus Deininger, Lyn Squire, and Swati Basu. "Does Economic Analysis Improve the Quality of Foreign Assistance?" October 1998.

4.21 The three elements are complementary, but the first is the only one that has been there from the start, and is probably the most important in determining the quality of the Bank's debt.[73] The reason is simple: a guarantee implies that the original debtor is replaced by the guarantor in the event of default, and therefore, the relevant risk is ultimately the risk of the guarantor.[74] Nevertheless, as a result of this structure, the risk rating no longer directly reflects the quality of the Bank's portfolio. The rating is no longer an accurate guide or an element of market discipline with respect to portfolio quality. Under these circumstances, economic analysis, and financial and risk analysis in particular, lose importance among institutional priorities.

## D. Preponderance of sovereign risk in the portfolio

4.22 Related to the preceding point, prior research also shows that the private sector loan portfolio presents generally greater evaluability, and its loan proposals tend to be supported with higher quality analysis.[75] This may respond to the fact that, for private sector projects, the preferred creditor feature does not work. For this reason, the requirements for approval in terms of evaluability and quality for private sector projects are higher, and in comparison, the requirements for sovereign risk operations may be more lax, since they have the State's ability to pay in the event of default. Projects with the private sector are also required to formally establish the Bank's additionality, to show that the benefits generated by project execution exceed the costs in order to prove the repayment capacity and minimize the financial risks assumed.

4.23 While private sector projects pose a different type of credit risk, the risk of failing to properly fulfill development objectives is common to all Bank projects. Unlike credit risk, development risk is the risk that the project will not achieve the expected development outcomes, regardless of the risk that the loan may not be repaid.[76]

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73 For a detailed explanation, see CA-199, The Committee of the Board of Governors, "Study on the Use of Capital Resources," IADB 1982.

74 For example: "By the fall of 1958 the spread between the volume of outstanding debt and the amount of the U.S. guarantee had narrowed to about $700 million, and the U.S. rating services had begun to sound an alarm. Several institutions holding World Bank bonds were becoming nervous, and a representative of the Bank was told by the president of Moody´s Investor Service that if the spread approached zero, Moody´s would have seriously to reconsider the rating of IBRD issues." Mason and Asher, 1973. p 117, citing a memorandum by W. Bennett, "The World Bank and the Investment Market." 1969.

75 Loans to the private sector represent, on average over the last four years, just 5% of approved loans.

76 A description of the results of the economic analysis quality instrument by public and private investment loans is not included, because the selection of the sample did not consider representation of the results by these categories. Thus, in terms of amounts approved, public sector investment loans in the sample (160 projects) represent 36.7% of the universe of projects in this category, while the private sector projects reviewed (6 projects) represent only 6.4% of the total private sector loan portfolio.

### E. The organizational separation between project design and execution

4.24 The separation of design activities from project implementation and execution activities is one of the main causes of the existence of weak incentives for quality economic analysis. The people who design the project do not have to deal with the consequences of their potential design errors, and those who execute the project may make material modifications to the original design. Some may consider that some of the design elements were inadequate, and therefore must be modified. And others may consider that such modifications are material, and therefore alter the essence of the project. The Bank has a long tradition of separating design from project execution, by assigning the design work to headquarters staff and execution work to the Country Offices.[77]

*"This organizational division creates a profound 'two cultures' problem within the institution. For the culture of design, success is defined as an elegant document which moves smoothly through the approval process. What happens once the document is approved is largely irrelevant to the career of the designer, who has already moved on to the next design task. For the culture of execution, success is defined as prompt and timely disbursement, accompanied by assured compliance with Bank procedures and contractual commitments. Achievement of developmental outcomes is not part of the currently-defined job of country office staff."*

## V. CONCLUSIONS AND RECOMMENDATIONS

### A. Conclusions

5.1 The results of the evaluation show a low quality of the economic analysis done in the Bank. All of the components analyzed need substantial improvement. The risk analysis associated with cost-benefit analysis, the financial analysis used as the basis for determination of economic flows, the explanation of alternatives, and the cost-benefit or cost-effectiveness analysis itself are all dimensions where the scores show very low quality levels.

5.2 This low quality results from several different factors. Probably the most significant is that the incentives for the Bank's professional staff clearly favor higher volumes of loans over the quality of the operations. This also biases the Bank's capacities toward the approval of operations. The institutional capacity of member countries, scant economic and sector work, the organizational separation between design and execution, together with a portfolio that has moved toward more complex sectors and instruments act as additional limiting factors.

### B. Recommendations

5.3 Internal policies are a key element of the incentives that determine the allocation of resources within the Bank. As indicated above, the lack of clarity in policy documents has freed entire sectors from the obligation to present any type of

[77] Document RE-260. *Development Effectiveness Report*. OVE. March 2002.

measurement of expected economic benefits, and primarily focuses attention on elements linked strictly to more formal aspects of the project approval process. Therefore, it is advisable to revise the internal policies on quality and evaluability guidelines for loan proposals. Operational guidelines need to be established at the sector level to facilitate the preparation of economic analysis by Bank staff; while it must also be ensured that the quality review bodies pay due attention to the level of evaluability and quality of the economic analysis in the proposals. Moreover, a system to monitor the decisions of the review bodies should be established as an additional element encouraging a higher level of compliance and accountability. For these reasons, public access to information and specific studies on projects must be significantly improved. This was one of the primary challenges faced in preparing this evaluation.

5.4 Based on the surveys and interviews conducted, the review of prior evaluations, and the experience of other multilateral institutions, it is clear that a culture of quality and results faces its main challenges when it has to operate in an environment that openly favors approval volume as a primary criterion for recognition. A culture of approvals represents a constant obstacle to results-based management, when the general perception is that the primary criterion in determining raises and promotions is the volume of approvals. Therefore, we recommend revising the staff evaluation system to explicitly and formally consider the quality of operations and the quality of the economic analysis conducted in each proposal. One way to generate information for such purposes might be to require review and decision-making bodies to rate each proposal on the quality dimensions deemed pertinent, at the time the decision is made.

5.5 Efficiently addressing the needs of member countries requires shortening the project cycle significantly, but also demands higher quality in the Bank's interventions. The experience of other multilateral institutions and the Bank itself suggests that more in-depth economic and social work (ESW), providing a clearer rationale for the interventions and a better assessment of their economic feasibility, results in better project design and more efficient resource allocation. Therefore, it would be advisable to allocate more resources to ESW. This recommendation requires more coordination by our Research Department (RES), which should be fully integrated into the Bank's activities and the project cycle with specific outcomes.

5.6 One characteristic of quality economic analysis is the preparation of risk and institutional analyses considering all potential sources of variation for the project's net benefit flows, including both shocks in exogenous factors and in the conduct of the agents involved. Once the project is defined, the risk and institutional analyses, particularly the mitigation and damage control measures, become the most relevant elements. Ideally, both the risk and the institutional analyses should be exhaustive and fully integrated with institutional learning. Therefore, it is advisable for the operations manuals to define the minimum set of elements to be considered in both

types of analysis. A qualitative approach may be efficient to the extent that the risks linked to the projects are, by their nature, risks that can be considered operational.

5.7 Related to the previous point, it should be noted that the risk analysis of projects financed by the Bank is done by the same staff responsible for promoting the project's approval. According to a basic principle of separation of powers, the project risk analysis should be done by a group that is independent of the business or transactional activities. The conflict of interest arises when the project's promoter does not have sufficient incentives to exhaustive identify the risks of the project he or she is promoting. This is even less the case if recognition, raises, and promotions depend on the volume of approvals achieved. Therefore, we recommend that the analysis, measurement, and monitoring of project risks be carried out by an independent group, separate from the origination of operations.

5.8 Projects financed by the Bank are the result of the consensus between the research and monitoring activity performed by the Bank and the dialogue with the country. In most cases, projects are the result of joint activity in which governments submit preliminary project concepts to the Bank, which the Bank must turn into complete projects. Therefore, we recommend supporting and complementing the economic analysis done by the countries so that the rationale for the interventions and the design of the projects improves from their origin. Investing in improving the quality of economic analysis in the countries involves allocating more resources to building institutional capacity and fully tapping the Bank's recognized capacity for adapting its proposals to the particularities of each country.

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# Annex I

| Criterion | World Bank Handbook (Belli 1996. Belli et al (2001)) | MIDEPLAN Chile | European Commission (2003) | Asian Development Bank (1997) | IDB (2006/07) |
|---|---|---|---|---|---|
| **Context** | Economic context (link between the project, the sector, the macroeconomic environment, and the institutional context) | Identification of the area of study and influence (PP) | Compatibility of the project with EU objectives in the sector considered, and with the objectives of the funds considered | Macroeconomic and sector context | The project's economic context<br>Main problems of economic development (problem tree)<br>Context of the project's sector |
| **Public sector intervention** | Rationale for public sector intervention | | | Evaluates whether the project could be undertaken by private entities given the financial returns on the investment, or whether the use of public funds in necessary to cover the actual or potential deficiency in the supply of the good or service. | The potential for the private sector to provide the required good or service must be studied. This is to avoid a shift in private supply and the public financing of only those projects whose social return is greater than their financial return. Basically, it is an attempt to limit government investment to the provision of public goods. |
| **Project objective** | Project objective | Identification of the problem<br>Identification of the target population (PP)<br>Projection of the potential population-PP<br>Current and projected demand<br>Current and projected supply<br>Current and projected deficit (PP) | Definition of the objectives<br><br>The objectives must be socioeconomic variables<br><br>What socioeconomic benefits will result from project execution?<br>Identification of the project as a defined unit | The project objectives must have measurement indicators that allow the evaluation of project performance and its impact on the outcome indicators. The objectives should also be related to the macroeconomic and sector objectives identified for the country. | Project objectives must be associated with performance indicators that can be quantified, and to the extent possible, assessed. |
| **Counterfactual analysis** | Comparison of the situation with and without the project | Identification of alternatives: optimization of the baseline situation<br>Configuration of alternative solutions (size, location, technology) PP | Analysis of viability and options (ensure the project represents the best possible option)<br><br>Comparison of the situation with and without the project and with minimal intervention | Identification of costs and benefits with and without the project | Comparison of the situation with and without the project (situation without the project differs from current situation) |
| **Alternatives** | Comparison of alternatives | | | Study of alternative projects | Alternatives among diverse projects<br><br>Optimization of design and time (for a specific project) |

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| **Separable components** | Separable components | | | Each component must be evaluated separately, to determine its individual economic return. Thus, components may be added to or eliminated from the final project design. | Definition of the project to be analyzed: separable components |
| **Fungibility** | Ensuring that all projects in the borrowers' public investment program contribute to the country's development objectives | | Only those projects that prove to be economically and financially profitable and that in turn appear to be the best feasible alternative of the range of available options will be undertaken. | Economic analysis should lead to a project decision that ensures that available funds are being used on the most profitable investment alternative, once the risk factors and the associated likelihood of their occurrence has been internalized. | |
| **Distributive effects** | Economic analysis should include transfers, such as subsidies and taxes, so as to identify the groups that will enjoy the benefits and those who will bear the costs. | | | Distribution of project effects<br>Analysis of differences between economic and financial prices | Analysis of incentives and fiscal impact (disaggregation of costs and benefits) |
| **Fiscal impact** | Fiscal impact | | | Funding of project and fiscal analysis | |
| **Project sustainability** | Is the project sustainable in financial terms? Who will finance it? Is sufficient financing available? | | | Estimate the debtor's creditworthiness by reviewing its portfolio of liabilities and recurring revenues. This will provide an idea of the borrower's ability to pay, as well as its capacity to fulfill the counterpart contribution, if required. | |
| **Environmental impact** | The positive and negative environmental externalities should be assessed and included in the project's flow of costs and benefits. If environmental impacts are foreseeable, then appropriate prevention or mitigation measures must be considered (in this case, the cost associated with the project's residual impact should still be included). | Projects must have the Environmental Qualification resolution. | Impact on the environment (for large projects).<br>Application of a polluter pays policy for the project. | Environmental sustainability | |

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| **Cost-benefit analysis** | The financial analysis is the starting point for identifying the project's economic costs and benefits. Two types of adjustments are necessary: the first is the inclusion or exclusion of some costs and benefits, and the second is the reassessment of the project's inputs and outputs at their opportunity cost. The financial analysis is done from the viewpoint of the implementing agency (IA). This identifies the project's net monetary flow for the IA and assesses the entity's capacity to meet its financial obligations and to finance future investments. In contrast, economic analysis evaluates the project from the perspective of the economy as a whole. | Profitability indicators<br>Cost-benefit or cost-effectiveness approach<br>Use of social prices (EV) | Part of the financial analysis. The purpose of the financial analysis is to use the project's cash flow projections to calculate appropriate rates of return, as well as the financial net present value. | A study of the actual and potential demand for the financed project, as well as the current and future supply of the good or service to be provided by the project must be conducted. This will allow estimation of the population served and therefore, of the benefits to be generated with project execution.<br><br>This information is used to prepare financial flows during the project's life cycle and to obtain profitability indicators appropriate for the peculiarities of each case. These may include the internal rate of return, net present value, and the incremental internal rate of return, among others. | Estimation of the costs (system of costs, real vs. nominal prices, opportunity cost, transfers, contingencies, sunk costs, service of debt, depreciation, shadow prices).<br>Estimation of benefits (valuation)<br>Use of shadow prices.<br>Actual prices |
| | It should include sunk costs, interest payments, and repayment of principal, physical contingencies, donations, and contributions. It should also include positive and negative externalities caused by the project. Gains in the consumer surplus resulting from potential price cuts for the good or service as a result of project execution. In cases where market prices do not reflect the true opportunity cost of capital, due to distortions, shadow prices should be calculated from the inputs and outputs—tradable and non-tradable and services—to assess the project's economic costs and benefits. | | Economic analysis (starts with the financial analysis and moves on to shadow prices, if applicable; corrects for externalities and taxes and subsidies) | The project's financial sustainability must be evaluated. | - Least-cost analysis<br>- Cost-effectiveness analysis<br>- Cost-utility analysis<br>- Cost-benefit analysis |
| | | | Costs and benefits analyzed at various points in time | Identification of costs and benefits (system of costs, sunk costs, contingencies, working capital, transfers, depreciation, external costs) | |

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| **Risk analysis** | **Switching values analysis** on selected variables: (a) aggregate costs and benefits, (b) critical components of costs (productivity coefficient and prices of main inputs) and benefits (prices of project outputs, rate levels, expected growth rate of demand for project outputs), and (c) the effect of delays on project execution.<br><br>Considers **sensitivity analysis** to be very limited, since it does not include the probability of occurrence of events or the correlation existing between the involved variables. Moreover, the practice of submitting the key variables to an arbitrary percentage of variation does not necessarily have any correlation with the observed or likely variability of the variables underlying the project's costs and benefits.<br><br>Suggests **Monte Carlo simulations** to appropriately estimate the project's net present value. This requires specifying the distribution of the probability of the primary factors subject to uncertainty (which may be extracted from past observation of the variable or the subjective judgment of expert technicians and financial analysts) and specifying the correlation between the involved variables. | | **Sensitivity analysis:** This requires the selection of the model's critical variables and parameters. *Procedure:* (a) determine all variables used to calculate intermediate production and consumption in both the financial and economic analysis; (b) perform a qualitative analysis of the impact of the variables in order to identify those with marginal elasticity, so as to limit the quantitative analysis to the variables that are subject to more significant variation; (c) perform an analysis of scenarios giving optimistic and pessimistic values to each of the variables whose elasticity is not considered marginal. To do this, the extreme values on the probability distribution range should be selected with respect to each critical variable.<br><br>**Probabilistic risk analysis:** This analysis requires associating each critical variable with a probability distribution defined within a range of values around the optimum estimate used in the benchmark hypothesis to calculate the evaluation indices.<br><br>Monte Carlo simulations are recommended in cases where a set of variables is considered in order to facilitate calculation of the profitability indicators as a result of the combined variation of the variables subject to uncertainty. | **Sensitivity analysis:** This involves four basic steps: (a) identify the variables to which the decision on the project may be sensitive, (b) determine the degree to which the value of these variables can vary from the baseline case, (c) calculate the effect of the different values on the project's primary profitability indicators (NPV and IRR), and finally, (d) interpret the results and design risk mitigation measures.<br><br>The degree of variation to which the involved variables are subject must be derived from ex post evaluations and other studies of projects with similar characteristics. To facilitate the mitigation action, the sensitivity analysis must be done on each variable individually and not only on the total costs and benefits.<br><br>**Quantitative risk analysis:** This assigns a specific probability of occurrence to each of the possible values of the involved variables.<br><br>The purpose is to determine a distribution of probability for the project's profitability indicators after simultaneously varying, through a random selection, the probable values of each relevant variable. The ultimate objective is to provide the policymaker with an analytical framework allowing the comparison of alternative projects by the magnitude of their net benefits, as well as associated risks that they will actually be achieved. | **The risk analysis must be done on each variable for which assumptions were made** to build the flows of benefits and costs associated with the project. The analysis at the sector and project levels allows the identification of the factors that may affect its viability.<br><br>To understand the risk inherent in the project, the following can be done: (a) sensitivity analysis, (b) switching values analysis, and (c) Monte Carlo risk analysis.<br><br>The sensitivity analysis is useful to the extent that the changes recorded by the project's profitability indicators may be related to their causal factors and not only to the aggregated cost and benefit levels. Otherwise, the person responsible for making decisions is not able to recognize whether a variation of 10% or 20% in the project's benefits and costs adequately represents the risk to which the project is actually exposed. |

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| **Risk analysis** | | | | For each variable subject to considerable fluctuations, adequate mitigation measures must be proposed to be included in the project design. These may include project-level actions, such as long-term supply contracts or pilot phases; sector level actions, such as technical assistance programs; or national level actions, such as changes in tax policy. In high-risk cases, the project should be submitted for redesign or a pilot implementation phase. | **The switching values analysis** also has the disadvantage of not considering the probability of occurrence of the events rendering the project's net present value as zero or that place its profitability below the threshold established by the opportunity cost of capital used as a reference.<br><br>**The Monte Carlo simulation analysis** is a method that provides the probability distribution of an outcome based on the probability distribution of income data. This overcomes the limitations of the sensitivity and switching values analyses, since it not only assigns a probability distribution to all assumptions underlying the calculations made, but also allows the implications of the existence of correlations between the involved variables. |
| **Poverty analysis** | Specify assumptions; critical actions for project success; comparison between projected values and historical values | | | Distributive and poverty analysis | |
| **Monitoring and evaluation** | | Ex post evaluation | | Monitoring and assessment of benefits during the project life cycle | |
| **Gender analysis** | | Gender analysis if it is pertinent and warranted | | | |
| **Provides sector evaluation guide?** | | Evaluation guide for approximately 30 types of projects | Provides an evaluation guide for sectors | No | Suggests using differentiated methodologies but does not propose any |

# Annex II

**Operational Policies Manual OP-302 March 1981**
**Loan Policies. Preparation and project evaluation**
**Socioeconomic evaluation. Cont.**

## Data adjustment

The economic efficiency analysis frequently starts with financial data prepared to measure the financial results of a project at market prices. Such data must be adjusted for use in the economic analysis, which seeks to measure the investment's impact on the society, or the national economy, rather than from the viewpoint of the individual entity or the financial profitability of the project. The principal adjustments are:

1. To price goods and services at marginal opportunity costs to the country. This includes valuing inputs and outputs generally at border prices (CIF/FOB), adjusted for internal handling and distribution costs; valuing labor at what it would produce in the absence of the project; and adjusting to a real cost basis those inputs whose prices are affected by subsidies, monopolistic marketing situations or other interferences with the operation of market forces through which prices would equal marginal costs.
2. To exclude taxes (and subsidies), because they are transfers within the country rather than costs (and benefits) to the economy.
3. To exclude interest and depreciation, because they would involve double counting under the method of calculating the internal rate of return or the present value of the project.

## Indirect effects

The economic efficiency analysis also studies indirect effects or externalities. For example, these, would include: (a) adverse environmental effects on the quality of the air, water or land use, (b) beneficial external effects such as reducing flood damage downstream from a hydroelectric dam, or (c) use by others of an access road to a project. As far as possible these will be qualified and incorporated into the analysis if they are clearly a function or result of the project.

Certain other indirect effects may also be reviewed, such as the stimulus to industries supplying inputs for the project or benefit for consumers of its goods and services, the project's influence on regional development and diversification within the country, and its effect on Latin American economic integration. Although such indirect and induced effects cannot always be incorporated into a benefit-cost or cost-effectiveness analysis, they may have an influence on the Bank's decision to approve or disapprove a project.

## Test for economic acceptability

If the project shows an internal economic rate of return of less than the opportunity cost of capital in the country (which has up to now been assumed to be at least 12 percent), it is considered submarginal from the economic efficiency viewpoint. Even if the rate of return exceeds the minimum acceptable value, the Bank seeks to verify that there is no alternative of design, size, location or timing that would produce more net benefits, and that there is no better project available for Bank financing in the sector in question.

## Cost-effectiveness analysis at efficiency prices

In certain fields such as health, education, electricity and rural potable water, it is not always feasible to estimate the value of economic benefits. As a consequence, the economic efficiency analysis may be limited to a “least cost” or “cost-effectiveness” approach. This methodology compares the present value of the economic efficiency cost of alternative projects to attain given objectives, so as to select the alternatives with the lowest cost, thus maximizing the effectiveness of given amount of investment resources. This methodology is admittedly incomplete, because it implicitly assumes a homogeneity and equal value of benefits, i.e. that each medical treatment, each KWh of electricity, each school graduate, or each liter of water is equally valuable or meritorious, when in fact that probably would not be demonstrated if data were available to compare the situation with and without the project for all beneficiaries.

In applying cost-effectiveness analysis to a single project, the decision criterion is the least cost solution to the problem. In the case of global programs, a maximum cost per person or per unit or output is established, based on general experience, ex-post evaluations, and the specific conditions of the program, so that subprojects with higher costs are excluded unless there is special justification. Excluding high cost subprojects reduces the average cost per person or per unit, and the emphasis on cost-effectiveness gives incentives to those who design the projects to seek the most economical solutions at all stages. It is to be expected that the cost-effectiveness method will be replaced by standard economic efficiency analysis, as more reliable methods for estimating economic benefits are developed.

**Social aspects of projects**

A basic purpose of the Bank is to accelerate the social development of its regional developing members, but the concept of "social development" is broad and not very clearly defined. In common usage, the social development includes not only such activities as satisfying basic human needs (such as nutrition, employment, health, shelter and education), but also many other goals such as benefiting low income families, bettering the quality of life, improving the physical and social environment, providing more self-improvement opportunities, and developing participatory community or cooperative activities. These social considerations of an intangible nature should form part of the project analysis. However, given the difficulty of quantifying them, they often can only be described and set forth as targets.

Direct income benefits to low income groups can be quantified, however, so that besides carrying out the efficiency analysis described above, a separate analysis is performed that measures the distributional effects of the projects.

The first step in the analysis is to determine the maximum annual per capita income level for individuals to be considered as belonging to the "low income group." This is done on a country-by-country basis by estimating basic food requirements, and adding to this the cost of satisfying other minimum basic requirements such as clothing and shelter. The results of the studies and the low income cut off level so determined become operational only after approval by the borrowing country.

Based upon the low income per capita level and average family size, a maximum income is estimated for qualifying beneficiary families as "low-income." The income flows are then calculated for three groups—private low-income, other private and the public sector. The flows to these groups resulting from the project depend upon such things as: amount and distribution of consumption benefits (if any), level and structure of remunerations for unskilled and skilled labor, public or private corporation profits or losses, direct investments, and operating and maintenance expenses. They also take into consideration transfers between the groups via subsidies, taxes, etc.

The final ratio that represents the project's distribution impact consists of net benefits to the low income group divided by the total net benefits to the private sector. Because of the difficulty in determining the distributional impact of government receipts and expenditures, these flows do not enter into this final ratio.

In the cases where it is not possible to carry out a cost-benefit analysis, the objective is to estimate a coefficient for the project representing its distributional impact that is consistent, in an accounting sense, with the results of projects for which a cost-benefit analysis has been performed. In these cases, an attempt is made to estimate the proportion used or consumed of the product or service received as a function of the income level or the beneficiary.

Where cost-benefit analysis has been performed, aggregation of the results, within or between projects, is achieved through the addition of the income flows computed for each of the private sector groups. In the absence of this kind of analysis, aggregation is achieved using the appropriate weights.

All projects should be planned so as to attain their goals efficiently, in a manner that takes into account the mores, cultural values and traditions of the persons to be affected.

**Project objectives**

The project goals should be clearly stated, quantified if possible, realistically attainable and consistent with the country priorities and development strategies, which are addressed in the Country Reports and Sector analyses prepared by the Economic and Social Development Department. The project objectives are also essential for the ex post evaluation.

# Annex III

| **Operational Policies Manual OP-302 March 1981. Loan Policies. Preparation and evaluation of projects**<br>***Institutional Evaluation*** | **Operations Processing Manual.**<br>**Project Cycle. Analysis Phase. PR-1105**<br>***Institutional Assessment. PR-1105-4*** |
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| **Objectives** | **Purpose** |
| The purpose of institutional evaluation is to ascertain the agency's capacity to perform its activities, including the project to be financed by the Bank in such a way as to attain its goals and objectives. Because of its dynamic nature, institutional evaluation begins at the time of the Bank's first contact with the prospective borrower and continues throughout the operational cycle. Its specific objective is to identify and formulate the recommendations and conditions of the prospective loan. | The Bank must ensure that a project responds to a demand or need, that it is technically viable, financially solvent and economically justified before any potential financing. It must also ensure that the entity(ies) that will be involved in implementing the project are "institutionally viable" to effectively and efficiently carry out the project.<br><br>The **institutional assessment** is the study of the institutional viability of the project, also known as administrative or managerial analysis, and inquires:<br>(a) Whether the entity is suitably organized and whether its administration is appropriate for the tasks to be carried out.<br>(b) Whether it makes effective use of local capacity and initiatives, and<br>(c) Whether institutional changes or changes in policies outside the entity are required to comply effectively with project objectives. |
| **Scope** | |
| Institutional evaluation includes an analysis of the purposes, objectives and specific goals of the institution, its complement and use of human, financial and physical resources included in its organization structure and the institutional framework within which the agency operates. Institutional evaluation takes into account the following aspects:<br><br>(a) Examination of the process whereby specific goals and objectives are identified, both in formal aspects and in the perception of the various managerial levels, verifying the integration of the project into the institution's planning.<br>(b) Analysis of the entity's degree of organization, interna1 structure, decision, action and coordination levels, and interplay of functions, responsibilities and authority; information systems and managerial control; and all policies, manuals and procedures governing its activity for purposes of satisfactory production of the corresponding goods and services and for proper execution of the project, guaranteeing its operation and future maintenance.<br>(c) Analysis of the agency's human resources with special emphasis on managerial levels, identifying its skill in planning, organization, development, and satisfactory control of all available resources.<br>(d) Analysis of financial resources available to the entity, reviewing the mechanisms whereby these are obtained, with emphasis on the local contribution required for the project; of decision mechanisms for the allocation and investment of resources; and of accounting and auditing control systems.<br>(e) Analysis of the fiscal and informational resources, ensuring that the agency's external and internal communication channels | |

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| function properly in support of managerial duties and guaranteeing the availability of the necessary physical resources to meet the specific goals both of the institution and of the project under review.<br>(f) Review of the institutional framework within which the entity functions, its operational relationship with government authorities, its ability to comply with market trends, the appropriate and timely nature of the regulations that restrict and/or motivate the institution's activity. | |

| **Operational Policies Manual OP-302 March 1981. Loan Policies. Preparation and evaluation of projects**<br>***Technical Evaluation*** | **Operations Processing Manual.**<br>**Project Cycle. Analysis Phase. PR-1105**<br>***Technical Assessment. PR-1105-3*** |
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| **Objectives** | **Purpose** |
| Technical evaluation of development projects is designed for the following purposes: (i) to ascertain the overall technical feasibility of the project, (ii) to determine that the project and its potential impact are satisfactorily defined and that they are properly timed and situated, and include all the necessary technical elements to ensure optimal effectiveness and economy both in execution and in subsequent operation and maintenance, (iii) to verify financing requirements and make recommendations regarding the project plan of execution and conditions for the financing necessary to carry out the project. | The Bank must ensure that the projects are well conceived, that their technical design is appropriate and that they conform to generally accepted parameters. The **technical assessment** examines everything relevant to the process of obtaining the sought after results:<br><br>(a) The project design: outputs, their scale, location, physical characteristics and other specifications pertaining to their nature and operation.<br>(b) The technologies to be used, including the types of equipment and procedures, and the extent to which they are suited to local conditions.<br>(c) The criteria to be followed for the delivery of services.<br>(d) The necessary tasks, their sequence and timeline, including whether the execution timetables are realistic and the likelihood of achieving expected production levels.<br>(e) The resources needed and their costs.<br>(f) One very important part of the technical assessment is the examination of the cost estimates in order to determine whether they are satisfactory, within an acceptable margin of error, and whether the allocations set aside for extra physical quantities and price increases during execution are adequate.<br>(g) The technical assessment also reviews the proposed procurement procedures, as well as the procedures for contracting engineering, architectural and other professional services, to ensure that they comply with Bank requirements. In addition, the technical assessment estimates the costs of operating the project installations and services, and the availability of raw materials and other inputs. It also studies the social impact of the project to ensure that any adverse effects are controlled or kept to a minimum. Due to this interconnectedness, technical considerations are frequently combined with financial, environmental, institutional, and economic assessments. |

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| **General Considerations** | |
| Technical evaluation includes an analysis of the purposes, objectives and specific goals of the project, taking into account the following aspects:<br>(a) Examination of long-term sector planning and of prefeasibility and feasibility studies culminating in the selection and location of the project.<br>(b) In-depth analysis of the dimension and scope of the project, reviewing the justification and magnitude of the specific goals proposed.<br>(c) Analysis of design aspects, taking into account the norms, criteria and specifications applied; studies conducted; alternatives examined; possible changes in the solutions proposed as a result of the final studies; possible changes in physical goals; and maximization of social benefits such as the generation of employment.<br>(d) Study of the technical specifications and procurement system for goods and services needed for the project.<br>(e) Review of cost estimates and factors affecting escalation and contingencies. Determination of investment categories and the currencies that will be used for the goods and services to be acquired.<br>(f) Elaboration of a project execution plan, establishing deadlines for the principal activities identified defining the inter-relationships between them and placing proper emphasis on those activities on whose completion the overall deadline for the project depends. Analysis of the execution plan includes the number of specific goals, any difficulties and contingencies, the construction methods scheduled and the technical and managerial capacity of the borrower and of the executing agency.<br>(g) The study of the execution conditions is the most complex phase of the entire analysis process, since optimal magnitude—both technical and economic—within a basically satisfactory period does not in itself ensure implementation feasibility. The analysis of this aspect requires an overview of possible physical, financial and institutional contingencies, the availability and expertise of consultants, contractors and suppliers, and a review of the previous experience of both Bank and borrower in financing and executing of similar projects.<br>(h) Finally, evaluation includes appropriate recommendations with regard to any technical conditions for execution and subsequent operation and maintenance that should be incorporated into the loan contract. | |

| **Operational Policies Manual OP-302 March 1981. Loan Policies. Preparation and evaluation of projects Financial Evaluation** | **Operations Processing Manual. Project Cycle. Analysis Phase. PR-1105 Financial Management Assessment. PR-1105-1** |
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| **Objectives** | **Purpose** |
| Generally speaking, the Bank finances only part of the cost of each project and solely as a loan. Consequently, it is important for the Bank to ensure that such resources, in addition to its loan funds, as may he needed to complete the cost of the project during its execution, will be available on reasonable conditions and as scheduled. Furthermore, it is necessary to determine whether the borrower's financial capacity is adequate to comply with its financial commitments undertaken as a result of execution of the project and whether, once the project has been executed, it will operate on a self-financing basis. | **Applicability:** These guidelines are applicable to investment loans (including small projects) and global credit loan operations.<br>The purpose of the Financial Management Assessment should be threefold: (1) to assess the financial management capacity of the borrower and/or executing agency and to propose any financial management building activities; (2) to evaluate the borrower and/or executing agency capacity in maintaining adequate financial, accounting, internal control and internal audit systems; and (3) to establish the review process for disbursements. |
| **General Guidelines** | **Responsibility** |
| In order to ascertain these financial aspects, the Bank draws up a financial analysis in each case. In general, the type of financial analysis will depend on the nature of the project and the source or sources of funds to be used for furnishing the counterpart contributions required for that project.<br>In the case of projects in which the counterpart to the Bank loan to finance its cost, loan service and project operating and maintenance costs are derived exclusively from budget resources, the financial analysis will include a historical analysis of the budget and a projection thereof, incorporating all present and future commitments in order to evaluate the effect of the project's execution on the budget of the borrower, thus determining the financial feasibility of its execution.<br>In those other cases in which the plan for financing a project required the availability of self-generating sources of funds, capital contributions, parallel financing or other financing supplied by third parties, the financial analysis will be more detailed.<br>When the applicant is an existing entity, a study will be made of its financial behavior in order to draw conclusions regarding its financial status. In all cases of either an existing or prospective entity, a financial projection will be prepared covering the period of project execution and a minimum of six years of regular operation.<br>This information will lead to conclusions about the financial feasibility of the project and on the financial clauses to be included as part of the loan contract in order to protect the Bank and ensure the extent to which the project can be satisfactorily completed at the lowest possible risk. | The Project Team and the respective Country Office are responsible for the Executing Agency's (EA) financial management assessment for projects in preparation. Normally, the Country Office member of the Project Team undertakes this assessment. The results of the EA’s financial management assessment should be included in the project documentation. Country Offices are responsible for the financial management assessment of projects in execution. |

# Annex IV [78] [79]

| Name of document | Characteristics of the sample analyzed | | | | Main conclusions |
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| | Year approved | Size of sample | Lending instrument | Economic sector | |
| The Economic Analysis of IDB Financed Projects | 1998 | 46 | Investment loans | | Just 25% of all projects evaluated had good or acceptable analysis of the project's projected impact, concluding that "no systematic effort was made to make more uniform use of economic analysis to support the design, ex ante and ex post evaluation of projects at all levels of the Bank." |
| Instruments and Development: An Evaluation of IDB Lending Modalities (RE-300) | (1997-2000) | 190 | Investment loans | | Just 37% of all projects evaluated included some formal calculation of the financial yield of the loan before its approval, whether by calculating the internal rate of return or net present value of the investment. It was also impossible to evaluate the technical quality of these reports, since the support files for the calculation of these profitability indicators are not available. |
| Analysis of Project Evaluability Year 2001 (RE-275) | 2001 | 90 | Investment loans (77%); PBLs (16%); private sector loans (7%) | Social investment (42%); Reform of the State (27%); Production and Infrastructure (30%) | The loan documents show a precarious identification of the risks as well as the strategies for preventing and mitigating them (82% of projects were unsatisfactory). Most projects were also shown to lack results indicators allowing the measurement of the impact on the target variables (84% unsatisfactory). Many of them also failed to provide baselines identifying the magnitude of the benefits generated by the project (93% unsatisfactory). |
| Evaluation of the IDB's Program in the Agriculture Sector (1990-2001) (RE-291) | (1990-2001) | 78 projects (2/3 of the resources invested by the Bank in this sector) | | | Only 25% of the projects analyzed had an ex ante cost-benefit analysis. These projects also had a weak or no approach for anticipating risks and the measures necessary to mitigate them. The levels of evaluability of the projects selected in the agriculture sector show that the structure and content of the projects must still be adjusted to facilitate the monitoring and evaluation of their performance. |

[78] It is important to consider that the conclusions of the studies referred to are based on different evaluation criteria since each one used different technical and analytical support as the basis for its analysis. Therefore, the fact that the existing studies do not use a common analysis tool does not allow their results to be fully comparable, inasmuch as the characteristics evaluated in each analytical module differ from one to another. Moreover, the quality of the samples varies considerably, so the conclusions drawn from these evaluations must be adjusted in terms of time, sector, region, and financing instrument.

[79] Nevertheless, it should be noted that despite the fact that these studies use different evaluation methodologies and criteria, all share the conclusion that the quality of the economic analysis of projects approved does not meet the standards established by international best practices.

| Name of document | Characteristics of the sample analyzed | | | | Main conclusions |
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| | Year approved | Size of sample | Lending instrument | Economic sector | |
| Evaluability 2005 | 2005 | 83 | Investment loans (85%); PBLs (8%); private sector loans (7%) | | 38% of the projects examined show serious problems in defining assumptions and risks. The risks to which the projects are exposed are barely supported with data and generally not assessed. The interventions are based on assumptions that are not made explicit in the project documents or whose validity is not empirically supported. The mitigation measures generally appear as insufficient and lack monitoring mechanisms. It is also noted that the loan documents that include satisfactory risk definitions (6%) come mostly from the private sector window (PRI). |
| An Evaluation of the Methodology, Quality and Relevance of Ex Ante Socio Economic Evaluation of IDB Projects in Guyana (1992-2004) | (1992-2004) | 9 | | | It concludes that the evaluation procedures, information, and documentation used are not standardized. It also highlights the absence of complete cost-benefit analyses, from both the economic and financial points of view, and the lack of appropriate risk studies. |
| Status of economic evaluation for IDB investment projects (DEV) | (2003-2005) | 42 | | | It concludes that (a) the economic information submitted to decision-making bodies is limited; (b) the documentation supporting the analysis usually provides an inadequate basis to determine the effectiveness (in development terms) of the investments financed by the Bank (whether ex ante or ex post); (c) the economic analysis tends to be focused on presenting an economic rate of return; while this is not very useful for policy makers; and (d) the management committees pay little attention to the economic analysis presented. |
| Quality-at-entry | August and December 2002 | | Investment loans (73.3%); PBLs (3.3%)[80]; private sector loans (23.3%) | | It concluded that the Bank is doing a satisfactory job of confirming that the project is well oriented in technical, economic, and environmental terms, in the presentation of evidence of the arrangements made for the project's financial management and for procurement management, and in the definition of the basic outputs generated and expected, and verifiable progress indicators. However, they show weaknesses in defining the basic data describing the condition to be improved by the project, in the desired direct effects, and verifiable progress indicators for the achievement of such |

[80] No analysis was done of the policy-based loans because, in the set of projects to be analyzed, there was only one such operation.

| Name of document | Characteristics of the sample analyzed | | | | Main conclusions |
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| | Year approved | Size of sample | Lending instrument | Economic sector | |
| | | | | | effects, as well as in the evaluation of all significant risks that could impact the project's capacity to generate outcomes and the identification of properly designed strategies to mitigate such risks during project execution. |
| Review of Quality-at-Entry of Policy-Based Loans Approved in 2003 | 2003 | 10 | PBLs | | The quality-at-entry review indicated that seven of the ten policy-based loans approved in 2003 received a completely satisfactory overall grade, and the others a completely unsatisfactory evaluation. Nevertheless, on the specific aspect of identifying and managing risk, the panelists noted that often, there was no sufficiently clear definition of the risks for the policy-based loans, or a determination of their relative importance. Moreover, the documentation for some loans lacks an analysis of significant macroeconomic risks. It was often noted that the proposed measures for managing risks related to political and institutional capacity were inadequate. With respect to the logical framework, a need was detected to quantify the outputs and outcomes of the policy-based loans with midterm and final evaluations, as well as a clear identification of the anticipated results. |
| Review of Quality-at-Entry of Investment Projects Approved in 2004 | 2004 | 27 | Investment loans | Environment, agriculture, infrastructure, modernization of the State, and social investment | Almost 40% of the projects did not do an internal rate of return or cost-effectiveness analysis. Both the modernization of the State projects and the social investment projects frequently only provided a qualitative discussion of the benefits. Some other less frequently found defects included inadequate sensitivity analysis, insufficient estimates of benefits, limited support for assumptions on which costs and benefits were estimated, and the underestimation of costs. Nearly one third of the projects capable of carrying out financial analysis showed problems. With respect to the logical framework: about 30% of the projects were evaluated as unsatisfactory. The main problem was in the quantitative specification of the outputs and outcomes, baselines, and midterm indicators. When these indicators were included, they were not sufficiently well defined to make their progress measurable. |

| Name of document | Characteristics of the sample analyzed | | | | Main conclusions |
|---|---|---|---|---|---|
| | Year approved | Size of sample | Lending instrument | Economic sector | |
| Review of Quality-at-Entry of Eight Infrastructure Projects without Sovereign Guarantee Approved in 2004 and 2005, for private sector borrowers. | (2004-2005) | 8 | | Infrastructure | Economic analysis was frequently not a significant consideration in investment decisions. For most of the projects, the main output of the economic analysis was the economic internal rate of return. Moreover, the assumptions made in the analysis were rarely included in the loan documents. In several cases, a "black box" model was used, which gave rise to a broad range of IRRs, with their respective probabilities, without any appropriate explanation on how they had been calculated. With respect to financial considerations, 50% of the projects received an overall unsatisfactory grade. The reason for this result is that loan proposals do not systematically disclose the accounting standards or whether the financial information provided was audited. |
| Review of Quality-at-Entry of Policy-Based Loans Approved in 2005 | 2005 | 6 | PBLs | Infrastructure and financial sector, modernization of the State, and social sector | 50% of the PBLs analyzed lacked a proper results framework, with the main problems in this regard being the lack of a clear link between the output indicators, outcome indicators, and the established targets, based on which (along with the baselines) we can monitor and assess the project's progress. In 50% of the projects analyzed, the risk identification was incomplete. Most of them lacked a proper analysis of the risks related to exchange and interest rates, as well as inherent political and institutional risks. The analyses did not consider a clear reference of the relative importance of the identified risks. 67% of the PBLs analyzed did not include elements to manage the main risks, or only proposed limited measures to mitigate them (especially risks related to problems with institutional capacity, high levels of turnover of the staff necessary for PBL execution and political risks). |
| An Evaluation of the Methodology, Quality and Relevance of Ex Ante Socio Economic Evaluation of IDB Projects in Guyana (1992-2004) | (1992-2004) | 9 | | | It concludes that the evaluation procedures, information, and documentation used are not standardized. It also highlights the absence of complete cost-benefit analyses, from both the economic and financial viewpoints, and the lack of satisfactory risk studies. |

| Name of document | Characteristics of the sample analyzed | | | | Main conclusions |
|---|---|---|---|---|---|
| | Year approved | Size of sample | Lending instrument | Economic sector | |
| Status of economic evaluation for IDB investment projects (DEV) | (2003-2005) | 42 | | | It concludes that (a) the economic information submitted to decision-making bodies is limited; (b) the documentation supporting the analysis usually provides an inadequate basis to determine the effectiveness (in development terms) of the investments financed by the Bank (whether ex ante or ex post); (c) the economic analysis tends to be focused on presenting an economic rate of return; while this is not very useful for policy makers; and (d) the management committees pay little attention to the economic analysis presented. |

# ECONOMIC ANALYSIS EVALUATION INSTRUMENT

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|---|
| **1. Relationship between the project's objectives and the economic analysis** |
| **1.1 Relationship between the project's objectives and the economic analysis** |
| 4. A measurable definition of the objectives is presented. There is a direct relationship between the project's objectives and benefits, which have been quantified in the cost-benefit or cost-effectiveness analysis. |
| 3. A measurable definition of the objectives is presented. There is a direct relationship between the project's objectives and benefits, but they have not been quantified in the cost-benefit or cost-effectiveness analysis. |
| 2. A measurable definition of the objectives is presented. There is no direct relationship between the project's objectives and benefits, nor have they been quantified in the cost-benefit or cost-effectiveness analysis. |
| 1. No measurable definition of the objectives is presented. |
| **2. Consideration and evaluation of alternatives** |
| **2.1 Counterfactual scenario** |
| 4. A scenario without the project was considered, mentioning and supporting (with a detailed description and a presentation of flows) the benefits and costs associated with this option. |
| 3. A scenario without the project was considered, mentioning the benefits and costs associated with this option. |
| 2. The existence of a counterfactual scenario was only mentioned, without explaining the benefits and costs of this option. |
| 1. No mention was made of the existence of a counterfactual scenario. |
| **2.2 Identification and evaluation of alternatives** |
| 4. A set of alternatives other than project execution was considered, mentioning and supporting (with a detailed description and a presentation of flows) its benefits and costs. |
| 3. Each alternative was explained, describing the associated costs and benefits, but they were not explained in detail. |
| 2. The existence of alternatives to the project was mentioned, but their benefits and costs were not mentioned, nor were they explained. |
| 1. No alternative to the course of action defined by the evaluated project was considered. |
| **3. Financial analysis** |
| **3.1 Estimation of financial flows** |
| 4. The financial flows of revenues and costs (of design, execution, and operation) generated by each of the alternatives evaluated were presented in detail. |
| 3. Of all financial flows of revenues and costs (of design, execution, and operation) generated by each of the alternatives evaluated, only some presented the flows in detail. |
| 2. The financial flows of revenues and costs (of design, execution, and operation) generated by each of the alternatives evaluated were not presented in detail. |
| 1. No revenues and costs (of design, execution, and operation) were presented for each of the alternatives evaluated. |
| **3.2 Creditworthiness** |
| 4. The entity's credit history with the Bank or other institutions was evaluated, as was its credit rating, financial statements, and the composition, structure, and service of its debt. For public sector loans, an analysis of fiscal accounts was also presented (budget, receipts, expenditures, economic result). |
| 3. The entity's financial statements and the composition, structure, and service of its debt were evaluated. For public sector loans, an analysis of fiscal accounts was also prepared. |
| 2. The entity's financial statements were evaluated. For public sector loans, an analysis of fiscal accounts was also prepared. |
| 1. No mention is made in the analysis of the borrower's ability to meet its commitments with the institution. |

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| **4. Cost-effectiveness or cost-benefit analysis** |
| **4.1 Cost-effectiveness analysis** |
| 4. In the event that the benefits could not be assessed, the least-cost, cost-effectiveness, or weighted cost-effectiveness analysis was applied, presenting the cost-effectiveness ratio for each of the alternatives evaluated. When working with cost-effectiveness analysis, it was confirmed that the indicators used were reliable (an effectiveness measure is reliable if it yields the same results when applied repeatedly to the same individuals) and valid (an effectiveness measure is valid if it reflects a close relationship to the underlying concept). |
| 3. In the event that the benefits could not be assessed, the least-cost, cost-effectiveness, or weighted cost-effectiveness analysis was applied, presenting the cost-effectiveness ratio for each of the alternatives evaluated. When working with cost-effectiveness analysis, it was not confirmed that the indicators used were reliable (an effectiveness measure is reliable if it yields the same results when applied repeatedly to the same individuals) or valid (an effectiveness measure is valid if it reflects a close relationship to the underlying concept). |
| 2. In the event that the benefits could not be assessed, the least-cost, cost-effectiveness, or weighted cost-effectiveness analysis was applied. However, the cost-effectiveness ratio was not presented for each of the alternatives evaluated, despite the fact that this could have been done. |
| 1. No cost-effectiveness analysis was performed. |
| **4.2 Cost-benefit analysis** |
| 4. In the event that the benefits could be assessed, a cost-benefit analysis was performed. It was presented in detail (in addition to the IRR, NPV, and project flows). This analysis was done for each alternative evaluated. |
| 3. In the event that the benefits could be assessed, a cost-benefit analysis was performed. It was presented in detail (in addition to the IRR, NPV, and project flows). This analysis was done only for the project evaluated and not for each alternative considered. |
| 2. In the event that the benefits could be assessed, a cost-benefit analysis was performed. Only the IRR was presented, but not the NPV or the project's detailed flows. This analysis was done only for the project evaluated and not for each alternative considered. |
| 1. No cost-benefit analysis was performed to compare the net benefits of the alternatives considered, despite the fact that this could have been done. |
| **5. Fiscal impact** |
| **5.1 Identification of the fiscal impact on project agents** |
| 4. The agents receiving and those paying taxes, subsidies, and transfers were identified, thus recognizing the agents benefited and hurt by the project. The profits and losses of the agents involved were quantified. |
| 3. The agents receiving and those paying taxes, subsidies, and transfers were identified, thus recognizing the agents benefited and hurt by the project. The profits and losses of the agents involved were not quantified. |
| 2. Only some of the agents benefited and hurt by the project were identified, with a vague description of the implications. |
| 1. No analysis of the fiscal impact was done. |
| **6. Environmental impact** |
| **6.1 Consideration of the project's environmental impact** |
| 2. The environmental costs derived from the impact assessment, as well as the cost of the proposed mitigation measures, were incorporated into the cost-benefit analysis. |
| 1. The environmental costs derived from the impact assessment, as well as the cost of the proposed mitigation measures, were not incorporated into the cost-benefit analysis. |
| **7. Risk analysis** |
| **7.1 Sensitivity analysis** |
| 4. A sensitivity analysis was performed to evaluate the variation to which net benefits flows are subject under modifications in the parameters on which the assumptions of the analysis are based (price vector, average execution delay, average demand for the good, and institutional stability, among others). The level of stress to which each alternative was subject is a response to the variability of the involved parameters, that is, it is not an arbitrary change in the project's costs and benefits. |
| 3. A sensitivity analysis was performed to evaluate the variation to which net benefits flows are subject under modifications in the parameters on which the assumptions of the analysis are based (price vector, average execution delay, average demand for the good, and institutional stability, among others). However, the level of stress to which each alternative was subject is not a response to the variability of the involved parameters, but rather, used an arbitrarily selected variation value. |

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| 2. A sensitivity analysis was performed by varying the flows of benefits, costs, and investment (by an arbitrarily selected factor), rather than establishing variations on its determining factors (parameters). |
| 1. No sensitivity analysis was performed, and no provisions were taken for the possible fluctuations to which the project is subject. |
| **7.2 Switching value analysis by assumption and associated probability** |
| 4. A switching value analysis was performed for each of the parameters identified and used in the sensitivity analysis. Using an analysis of their distribution, it was also corroborated that the values of the parameters—for which the NPV is canceled out or the IRR falls below the threshold established by the Bank—have little likelihood of occurring. |
| 3. A switching value analysis was performed for each of the parameters, but no likelihood of occurrence was specified for those values for which the NPV is canceled out or the IRR falls below the threshold established by the Bank. |
| 2. A switching value analysis was performed on the benefit flows and costs rather than performing it on its determining factors (parameters). |
| 1. No switching value analysis was performed. |
| **7.3 Variables to be monitored and mitigation measures** |
| 4. The periodic monitoring of the variables that make the project's expected net benefits flow more sensitive was proposed, based on the two preceding analyses (sensitivity and switching value). The applicable mitigation measures in the event of fluctuations were indicated, as were their associated impact and cost. |
| 3. The periodic monitoring of the variables that make the project's expected net benefits flow more sensitive was proposed, based on the two preceding analyses (sensitivity and switching value). The applicable mitigation measures in the event of fluctuations were indicated, but their associated impact and cost are not calculated. |
| 2. The periodic monitoring of the variables that make the project's expected net benefits flow more sensitive was proposed, based on the two preceding analyses (sensitivity and switching value). No applicable mitigation measures were indicated in the event of fluctuations, nor was their associated impact and cost calculated. |
| 1. There was no identification of variables or mitigation measures to be monitored during the project execution process. |
| **8. Institutional analysis** |
| **8.1 Stakeholders and their behavior, preferences, and incentives** |
| 4. An institutional matrix was developed identifying each of the stakeholders impacted by the project, providing details on the relationship between each one and the process of change moving forward in terms of inputs, outputs, and outcomes. Detailed explanations are also provided for the preferences and incentives of each identified stakeholder. |
| 3. An institutional matrix was developed identifying only the most relevant stakeholders impacted by the project, providing details on the relationship between each one and the process of change moving forward in terms of inputs, outputs, and outcomes. Detailed explanations are also provided for the preferences and incentives of each identified stakeholder. |
| 2. An institutional matrix was developed identifying only the most relevant stakeholders impacted by the project, providing details on the relationship between each one and the process of change moving forward in terms of inputs, outputs, and outcomes. However, no detailed explanations are provided for the preferences and incentives of each identified stakeholder. |
| 1. No institutional analysis is performed. |
| **8.2 Weakness of involved institutions and mitigation measures** |
| 4. The weaknesses of involved institutions are identified and detailed so the activities required by the project are successfully implemented; measures to mitigate the identified weaknesses were also proposed. |
| 3. The weaknesses of involved institutions are identified and detailed so the activities required by the project are successfully implemented. |
| 2. The weaknesses of involved institutions are identified so the activities required by the project are successfully implemented. |
| 1. The weaknesses of the institutions involved in project implementation are not identified. |

## APPLICATION OF THE INSTRUMENT TO A SAMPLE OF PBLS

As noted above, this section serves as a reference since the economic analysis quality instrument was not designed to analyze policy-based loans (PBLs). The results presented in the table below show a very low level of quality in the economic evaluation of this type of loan, since no project qualified as good under any of the instrument's criteria. The results are also clearly worse that those presented for investment and private sector loans.

All projects were graded poor in the dimensions concerning objectives and economic analysis, alternatives, environmental impact, and risk analysis. With respect to the financial analysis dimension, no project presented an estimation of financial flows and only 16.7% of the projects identified the borrower's creditworthiness to some extent. This last result is noteworthy, largely because it would be expected that the Bank would perform a more detailed analysis of the sustainability of the country's debt in cases where it grants a discretionary loan subject to the execution of a series of institutional reforms. This would be the procedure, at least to ensure that the institution is aware of the potential risks it assumes as a lender and as an entity promoting the macroeconomic sustainability of its member countries.

**Table 7. Distribution of projects by dimensions analyzed and average score received**

| Dimension of economic analysis (EA) | Criteria | In percentage | | | | Average score (range from 1 to 4, with 4 as highest score) |
|---|---|---|---|---|---|---|
| | | Good | Acceptable | Fair | Poor | |
| Objectives and EA | Relationship between project objectives and economic analysis | 0.0 | 0.0 | 0.0 | 100.0 | 1.000 |
| Alternatives | Counterfactual scenario | 0.0 | 0.0 | 0.0 | 100.0 | 1.000 |
| | Identification and evaluation of alternatives | 0.0 | 0.0 | 0.0 | 100.0 | 1.000 |
| Financial analysis | Estimation of financial flows | 0.0 | 0.0 | 0.0 | 100.0 | 1.000 |
| | Creditworthiness | 0.0 | 4.2 | 21.5 | 83.3 | 1.250 |
| CE or CB analysis | Cost-effectiveness analysis (CE) | 0.0 | 0.0 | 0.0 | 100.0 | 1.000 |
| | Cost-benefit analysis (CB) | 0.0 | 4.2 | 0.0 | 95.8 | 1.083 |
| Fiscal impact | Identification of the fiscal impact on project agents | 0.0 | 8.3 | 45.8 | 45.8 | 1.625 |
| Environmental impact | Consideration of the project's environmental impact | 0.0 | 0.0 | 0.0 | 100.0 | 1.000 |
| Risk analysis | Sensitivity analysis | 0.0 | 0.0 | 0.0 | 100.0 | 1.000 |
| | Switching value analysis by assumption and associated probability | 0.0 | 0.0 | 0.0 | 100.0 | 1.000 |
| | Variables to be monitored and mitigation measures | 0.0 | 0.0 | 0.0 | 100.0 | 1.000 |
| Institutional analysis | Stakeholders and their behavior, preferences, and incentives | 0.0 | 0.0 | 70.8 | 29.2 | 1.708 |
| | Weakness of involved institutions and mitigation measures | 0.0 | 4.2 | 33.3 | 62.5 | 1.417 |

Thus, it can be noted that none of the projects—as expected given the nature of these loans—performed a cost-effectiveness analysis and only 4.2% of the projects received a score of acceptable for performing a cost-benefit analysis for the project. This refers to the Sector program for public utilities in Colombia (CO-0270), whose purpose is to support the Government of Colombia in implementation of a series of reforms to ensure that public electricity, telecommunications, water, and sanitation services fulfill their objectives of equity, efficiency, quality, and sustainability, and to promote a better climate for private

investment. The cost-benefit evaluation of this program was graded as acceptable, since it shows the NPV for the fiscal impact of the reforms; identifies the project's benefits and costs; and includes costs and benefits in environmental terms, as well as for each involved stakeholder.

The fiscal impact dimension had a higher score, since over 50% had a score of acceptable or fair. The institutional analysis dimension also had higher scores: 70.8% of projects identified the stakeholders, while 37.5% identified, to a certain extent, the weakness of the involved institutions and the mitigation measures. Despite the better scores, the fact that they are lower than those for investment projects stands out, considering that one would expect the institutional analysis for a reform loan to be better supported given the institutional nature of the loan.

# Annex VII

| Results of the economic analysis quality survey | | | | |
|---|---|---|---|---|
| **(1) In retrospect, and in light of the identified experiences of success and failure, how important would you consider the following factors to be for the success of projects?** | | | | |
| | **Very important** | **Important** | **Somewhat important** | **Not important** |
| The quality of the project's economic analysis | 27% | 54% | 16% | 3% |
| The institutional quality of the borrower country | 50% | 41% | 7% | 2% |
| The quality of the project's executing agency | 82% | 15% | 2% | 1% |
| The quality of the project's supervision | 62% | 33% | 3% | 2% |
| The quality of the country strategy and sector studies | 14% | 48% | 30% | 8% |
| **(2) In light of your experience in the identified projects, how important do you consider quality economic analysis to be in each of the stages of the project cycle?** | | | | |
| | **Very important** | **Important** | **Somewhat important** | **Not important** |
| In the identification stage | 25% | 45% | 25% | 5% |
| In the preparation stage | 44% | 40% | 14% | 2% |
| In the analysis stage | 55% | 29% | 14% | 2% |
| In the supervision and execution stage | 23% | 43% | 27% | 7% |
| **(3) In light of your experience in the identified projects, how important do you consider the following limiting factors for the quality of economic analysis?** | | | | |
| | **Very important** | **Important** | **Somewhat important** | **Not important** |
| Internal incentives favor a culture of approvals, emphasizing the number of projects approved over their quality | 48% | 35% | 15% | 2% |
| The higher number of loans in the reform and modernization of the State sector to the detriment of traditional sectors like infrastructure and energy | 17% | 18% | 48% | 17% |
| The high workload for specialized human resources in the Bank | 29% | 48% | 20% | 3% |
| The lack of clear internal policies and control mechanisms that require fulfillment of general guidelines for economic evaluation | 25% | 47% | 25% | 3% |

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|---|---|---|---|---|
| Restrictions imposed by the institutional capacity of the Bank's clients | 30% | 38% | 28% | 4% |
| **(4) When the Bank made use of some type of economic analysis in the projects in which you participated, for what main purpose was it used?** | | | | |
| | **Very important** | **Important** | **Somewhat important** | **Not important** |
| To optimize project design | 20% | 54% | 18% | 8% |
| To fulfill a requirement in the approval procedures | 23% | 42% | 24% | 11% |
| To rule out unviable project proposals | 15% | 34% | 29% | 22% |
| To prioritize projects qualified for financing | 12% | 35% | 33% | 20% |
| To define a target portfolio of projects in the programming phase | 5% | 23% | 37% | 35% |
| To supervise or evaluate the project's results | 10% | 43% | 35% | 12% |
| **(5) Not all projects originate in the same way. In light of your experience in the identified projects, how were the projects financed by the Bank originated?** | | | | |
| | **Very important** | **Important** | **Somewhat important** | **Not important** |
| The projects are designed entirely by the governments and then they present their financing needs to the Bank in order to execute them. | 4% | 9% | 69% | 18% |
| The projects are partially designed by the government in a preliminary phase and then the Bank turns these policy ideas into specific projects and programs eligible for financing and execution. | 19% | 43% | 35% | 3% |
| The projects are designed jointly between the Bank and the borrower country from the start. | 22% | 48% | 30% | 0% |
| The projects are designed entirely by the Bank and then promoted among the borrower country's authorities. | 5% | 18% | 52% | 25% |
| **(6) In light of your experience in the identified projects, how important are the following factors in hindering approval of a project by the Bank's decision-making authorities?** | | | | |
| | **Very important** | **Important** | **Somewhat important** | **Not important** |
| The low quality of the economic analysis submitted | 9% | 31% | 52% | 8% |
| Low quality in the project's design and logic | 23% | 56% | 18% | 3% |
| Limited integration within the strategy framework defined by the Bank for the borrower country | 5% | 38% | 48% | 9% |
| Limited evidence of social returns | 10% | 42% | 40% | 8% |
| The difficulty in obtaining the necessary waivers in the event that any Bank policies are violated | 8% | 44% | 42% | 6% |

| | | | | |
|---|---|---|---|---|
| The limited evidence of good management and institutional capacity of the executing agency | 12% | 48% | 36% | 4% |
| **(7) In light of your experience, of the following indicators, which ones does the Bank currently use for purposes of recognition of work, promotions, and/or salary raises for project team leaders and members?** | | | | |
| | **Very important** | **Important** | **Somewhat important** | **Not important** |
| The volume of loans approved | 50% | 40% | 9% | 1% |
| The speed and efficacy with which project approval is handled | 35% | 47% | 16% | 2% |
| Compliance with development objectives planned for the projects | 1% | 12% | 70% | 17% |
| Quality of project design | 3% | 26% | 62% | 9% |
| Enhanced quality of dialogue with respect to borrower countries | 8% | 35% | 49% | 8% |
| Quality of economic analysis of submitted projects | 0% | 5% | 69% | 26% |
| The level of compliance with the disbursement schedule for approved projects | 16% | 26% | 44% | 14% |

**(8) In light of your experience in the identified projects, what impact does the preparation of an economic analysis have on the satisfactory achievement of the project's objectives?**[81]

- Projects that include high quality economic analysis are far more successful in setting appropriate targets.
- In theory, it should be high. Currently, given the limited importance (and low quality) of the economic analysis, the impact is minimal.
- The impact is and should be significant. Unfortunately, economic analysis is not common in the design, preparation, execution, and evaluation of projects financed by the Bank.
- The analysis has an impact if the economist decides for personal reasons to include the analysis in the project's design. Otherwise, only sometimes does someone ask whether economic analysis was done and almost never are its results discussed.
- Limited, due to the fact that incentives are focused on compliance with procedures that are more administrative than related to technical content.
- An appropriate economic analysis would basically allow the selection of real, measurable indicators that in turn, would contribute to better monitoring and effectively achieving the project's development objectives.
- It has a major impact, but the quality of the ex ante economic analysis does not guarantee that the project will be executed without major cost increases or without generating the originally projected benefits.
- In 15 years with the Bank seeing projects in six countries and at Headquarters, I have NEVER seen economic analysis for the projects. We have even told senior officials at the Bank that we do not understand the programming process, that it does not analyze the economic profitability of the projects to set priorities. So, why have we promoted it as a tool in the countries?
- In the projects I have been involved in, the main value added by economic analysis has been that it has helped all of us (Bank and country) to think through things better and get baselines and indicators to measure the project's impact.
- It clearly defines the environment of the program to be designed, not only with respect to its connection with the country strategy and the institutional capacity of potential executing agencies, but it also allows monitoring of the impact of the investment with respect to compliance with the targets and objectives.
- The Bank says that it supports the countries, but it actually supports the governments of the moment. The culture of the "approval meter" has taken hold and the quality of projects has fallen.
- It improves the definition, identification, and monitoring of the baseline, indicators, and compliance with objectives, providing better focus on the design and subsequent execution.

[81] Only some of the comments made by those surveyed have been included.

- It allows proper identification of the project's risks, its economic, political, and institutional viability, and anticipates potential problems in execution.
- Economic analysis is important and has to enter into sufficient detail for the planned investments (at the feasibility level). However, even with better economic analysis, this analysis is less important than a good institutional analysis to achieving the project's objectives.
- It depends on the quality of the information. Normally this information is not available or is of very poor quality, so the evaluation is based on assumptions, which clearly make the economic evaluation more an effort to comply with policies than to objectively evaluate the projects' economic and social benefits.
- Very important, because economic analysis makes it possible to allocate resources properly, identify the technology to be used, and define the targets attributable to these resources and their combination in a concrete manner.
- According to the definition provided, it is important to specify project outcomes in terms of the most direct effect on the project's benefits and to guide execution feasibility. Nevertheless, it should be limited to a situation with and without the project, because the potential options are very limited in the public policy area and the political economics of the process are often more important than quality economic analysis.
- My experience is not in investment projects for works, so this has not been a determining factor for me.
- Technical analysis done well ensures a smart investment that is properly scaled, evaluated with respect to alternatives for the use of resources and their impacts. There are no good projects without it.
- Economic analysis allows the project to achieve its objectives efficiently. It is essential to ensure the proper use of public resources.
- It is important. There has to be knowledge beyond the market for the services to be rendered. I would say that it is more important than economic feasibility. The Bank is not accustomed to analyzing the "market" for goods or services. Sometimes great emphasis is placed on the economic analysis, but the market is not taken into account.
- When economic analysis is done during project preparation, it helps identify the most relevant outputs for society and therefore, those with the greatest impact for the project. However, I would like to stress that financial analysis is also very important for quantifying the benefits for the State in terms of greater revenues and savings.
- The correlation is ambiguous. The impact on large projects tends to be affected by the prevailing institutional-policy framework and by sudden major changes in external conditions.
- It is crucial. Unfortunately, the Bank uses EA only as a formal requirement for designing and approving a project and not as a basis for management of performance, risk, and project results.
- In institutional capacity and public management projects, it is hard to measure the benefits (unlike infrastructure and social projects), therefore, often a bureaucratic cost-benefit analysis is done that contributes little to achieving the project's objectives. The building of consensus and institutional leadership, and execution capacity in the government are much more important for achieving project objectives.
- The impact is on the expected effects of the operation. If the benefits to be generated are not known with respect to their costs, the initiative's development impact cannot be evaluated.
- It should be very important, but the definitions for the approval of programs are subject to a very strong political component, in addition to the fact that they are requested by the government of the moment based on its priorities, and the Bank must satisfy its client. They run the risk of not performing economic analyses on the understanding that one project or another will be approved.
- Broadly defined, as was done at the start of this survey, this analysis is essential, since it allows problems to be anticipated, while identifying risks and potential mitigation measures, and establishing reasonable expectations with respect to expected outcomes. Establishing as policy the need for such an analysis and standardizing the quality required, but not the methodology to be followed (in some sectors, a strict cost-benefit analysis is not always feasible or necessary to establish the project's economic viability), is essential for improving the quality of the portfolio with respect to its effectiveness, and allowing our approach to shift from processes toward outcomes.
- The impact is very high, but in most projects I have evaluated, there is no rigorous economic analysis. It is up to the team leaders whether it is done or not.
- Quality economic analysis should help identify the real impacts and effects of an investment by using, in some cases, a certain degree of freedom to vary from traditional concepts, especially in remote areas where the investment will have a strong social impact that cannot necessarily be evaluated in numeric or monetary terms.

- To guarantee the reliability of the investment and prevent countries from assuming debt unnecessarily.
- **Economic analysis is a significant part of the project's rationale, but it contributes little to execution, which operates under four basic constraints: existence of a project champion; institutional mobilization around the project, political priority, and visibility in the media.
- It is only a useful tool, but in many cases, the data ends up being adjusted to justify the feasibility. It is not an exact science. The problem is not so much the economic analysis, since the capacity and experience of the project team can make up for any gaps in this regard. The problem is the political pressure and the perverse incentives to streamline approval of projects that are not ready or that do not have enough elements to verify their effectiveness. If we add to this the fact that the new approval procedures leave much to be desired in terms of peer review and quality assurance, it is unlikely that the quality and efficiency of future projects will improve. More sector work must be done to identify projects that have value added (if that is what the Bank wants).
- Quality economic analysis must be very clear on the parameters that the project intends to change (baseline) and realistic about the project's work hypotheses (institutional, risk, and other analyses). The impact should be very high if, in addition to realistic design, it is strictly supervised.
- It supports the substantive improvement of the management of viable objectives, allows execution assumptions and risks to be inferred; facilitates dialogue with the counterpart about decision-making, is extremely important for clarifying the types of interventions in projects that include infrastructure works and productive programs. In social programs, it establishes contrasting relationships with the achievement of objectives and sector efficiency benchmarks (cost/benefit) for the interventions.
- The projects I have participated in have not included economic analysis.
- In recent years, the value is low. Economic analysis is no longer considered an important factor in decision-making.
- Least-cost designs. Investments in works when needed (we have often delayed works due to lack of demand). These two factors involve efficiency in public spending. 2. Projects appropriate for users' needs and ability to pay, involving long-term sustainability. The projects the leaders want are often not those the users want or can pay for. 3. Rates designs in such a way that poor users have access to the services.
- For infrastructure projects, economic analysis is relevant for ruling out undesirable alternatives. For social projects, this analysis tends to be more complicated and in some ways, involves more assumptions, which in the end can make it useless for practical purposes.
- Economic analysis is only done to decide whether the Bank will finance it or not. Rarely does the achievement of a project's objectives have anything to do with whether the IRR was 12%, 14%, or 20%.
- Economic analysis is important to the extent that the executing agency understands its implications and considers not only quantifiable impacts, but also intangibles and spillover effects, etc. In practice, in general, only very specific economic impacts close to the project's effects are considered.