
Assessment of the Relationship between Level of Bank Programs Effort and Level of National Economic Development

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Strategic Planning and Operational Policy Division

Strategic Planning and Budget Department

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Objective

The objective of this paper is to analyze statistical relationships between the level of Bank effort in the operational program and the relative level of economic and social development of the Bank's borrowing member countries. Specifically, the analysis tested the hypothesis that there is an inverse relationship between a country's level of social and economic development and the Bank's level of effort in that country, and the reverse, that the more developed a country is, the lower the level of effort the Bank will devote to the preparation and execution of lending operations. The purpose was to assess the degree to which the Bank is reaping benefits of scale and the delegation of Bank project and program preparation to the individual borrowing country.

With this purpose, indicators were developed in order to account for the **operative effort** of the Bank at the country level, in conjunction with the use of macroeconomic data that reflect the level of economic, social and political development of each country.

Methodology

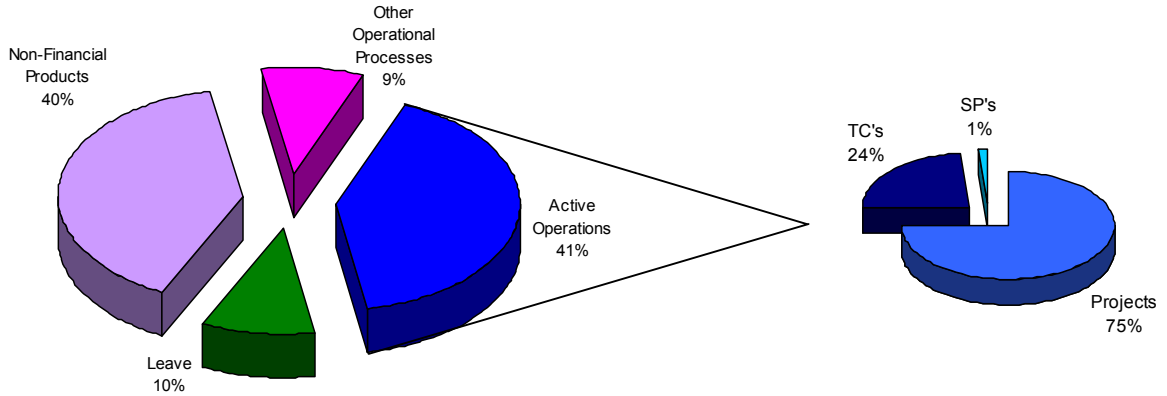
Reflecting the fact that approximately 44 percent of current administrative budget resources are allocated to what are termed "operational programs" (1998), the analysis focused on this portion of the Bank's budget resources. Utilization of this subset of Bank administrative resources is currently tracked through the Bank's Time Recording System (TRS), logged against individual operations which are linked to individual country programs.

The number of staff-hours at the operation level reported in 1998, by operational departments¹ and country offices, constitutes the basis for estimating the operative effort of the Bank. From the total number of staff-hours reported in TRS, the time related to projects, loans, technical cooperations and small projects (active operations) were considered (roughly, 2500 operations that account for a total of 700,000 staff-hours). Of this total the time was divided as indicated in the chart below, with approximately 41%

¹ Operational Departments: RE1, RE2, RE3, DPP, INT, OCE, PRI, SDS.

* Other Operational Processes: Budgeting, Training, Computer Support, Supervision, etc.

going to support individual projects, loans, TC, SP and MIF preparation, 40% for non-financial products and 9% for “other” operational processes.²



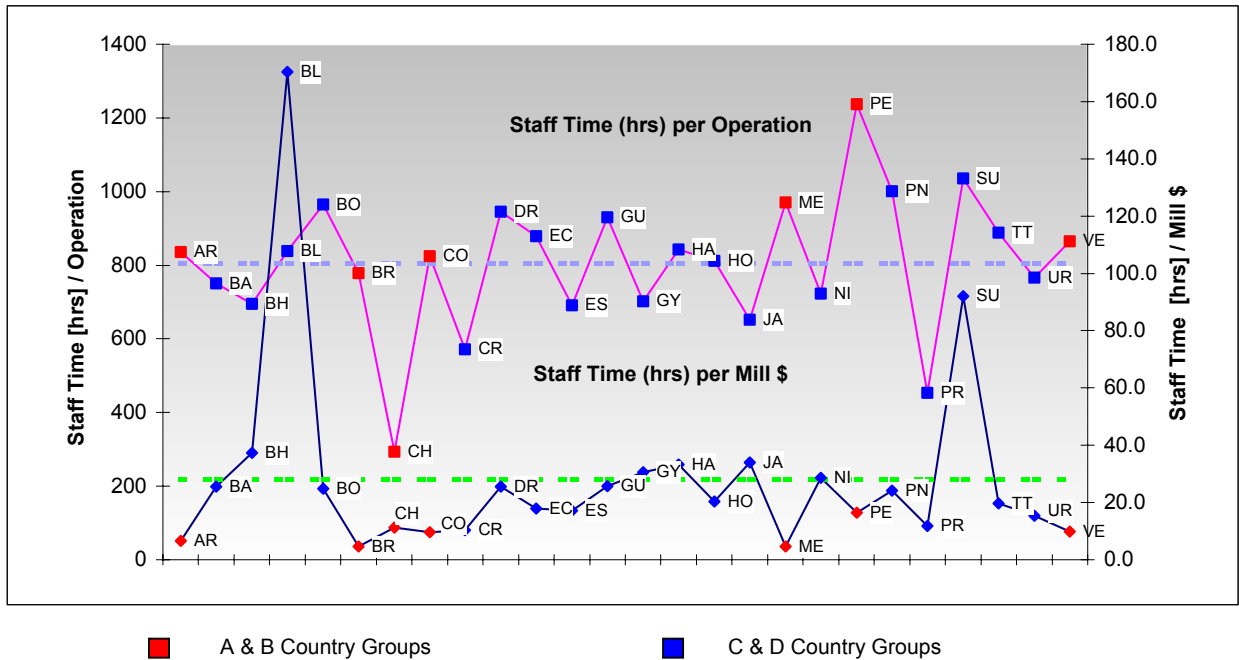
Due to the fact that a very small subset of operations, accounting for the overall majority of operational time, the analysis segregated out those which accounted for 80% of total time, leaving aside the large number (1800) that use only a small fraction of operational time. The criterion selected was any operation using more than 275 hours of work per year was included in the data set for analysis. Activity and time below this threshold was excluded. Using an 80/20 approach approximately 700 operations accounting for 550,000 staff-hours of the total was analyzed.

Operative Effort Indicators

Two sets of indicators were used on the data. The first considers the total number of staff-hours reported for each country, divided by the total number of active operations (work program) in that country ($\text{Staff-time (hrs)} / \text{Operation}$); and the other relates the total number of staff-hours reported for each country to the total dollar amount of that country's work program ($\text{Staff-time (hrs)} / \text{Mill \$}$). These indicators, shown below, reflect the relative position of each country with respect to an “average” contribution of Bank effort in the Region:

² Other Operational Processes: Budgeting, Training, Computer Support, Supervision, etc.

Graph 1
1998 Bank's Operative Effort Indicators



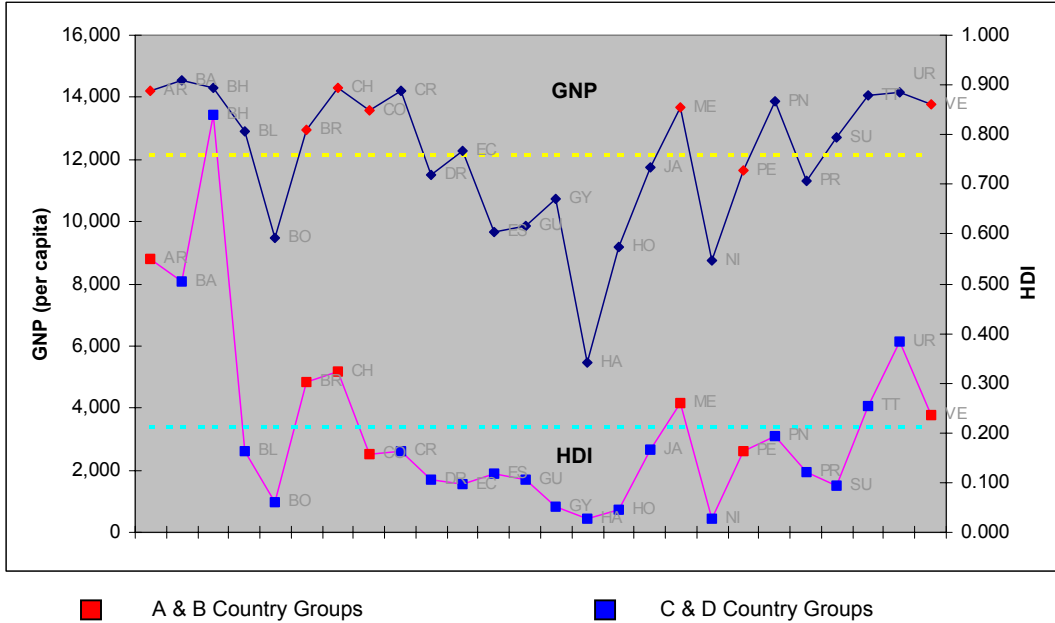
Graph 1 above, shows that countries in Group A & B, with regard to Staff-time per dollar amount, remain below the average for the Region as a whole (28.0 hrs/Mill \$); while in the case of Staff-time per operation, most of these countries are at the average level (805.6 hrs/operation).

Macroeconomic Indicators

Two different macroeconomic indicators were used to assess the level of economic, political and social development in the countries: a) Gross National Product per capita (1997 GNP), and b) the Human Development Index (1998 HDI). The HDI measures development in three dimensions, longevity, knowledge and decent standard of living (see Annex 1 for more information).

Based on these indicators, Graph 2 shows the relative position of each country with respect to an “average” macroeconomic measurement for the Region as a whole:

**Graph 2
Macroeconomic Indicators**



In the case of Macroeconomic Indicators, the graph shows that countries in Group A & B, with regard to GNP (per capita), are above the average for the Region (\$3,390 per capita). With regards to the HDI indicator, these countries show an uneven distribution when comparing with the average for the region (.757).

Statistical Analysis

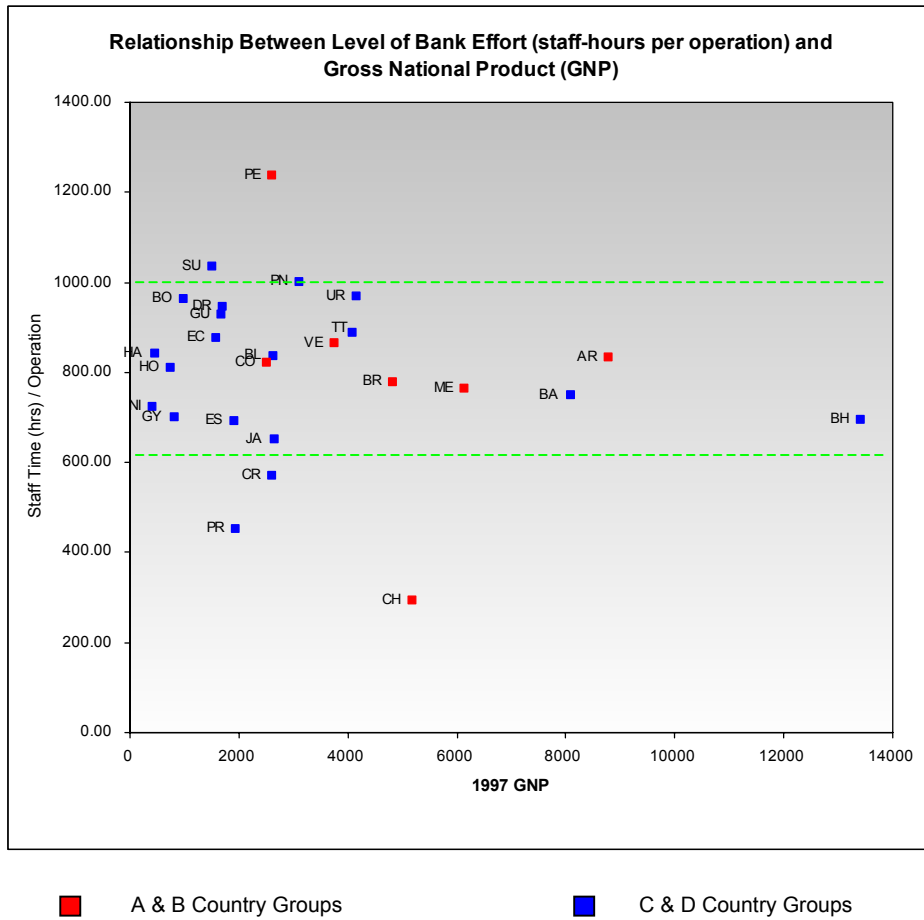
Macroeconomic and operative effort indicators were used to perform some basic statistical analysis at the country level. Four linear regression scenarios were considered:

1. Staff-Time per operation vs. 1998 HDI indicator
2. Staff-Time per dollar amount vs. 1998 HDI indicator
3. Staff-Time per operation vs. 1997 GNP
4. Staff-Time per dollar amount vs. 1997 GNP

The analysis of these four cases does not show evidence of a strong correlation (positive or negative) in any of the scenarios considered (see Annex 2 for detailed information).

This lack of correlation can be illustrated with the case of Staff-Time per operation vs. 1997 GNP:

Graph 3

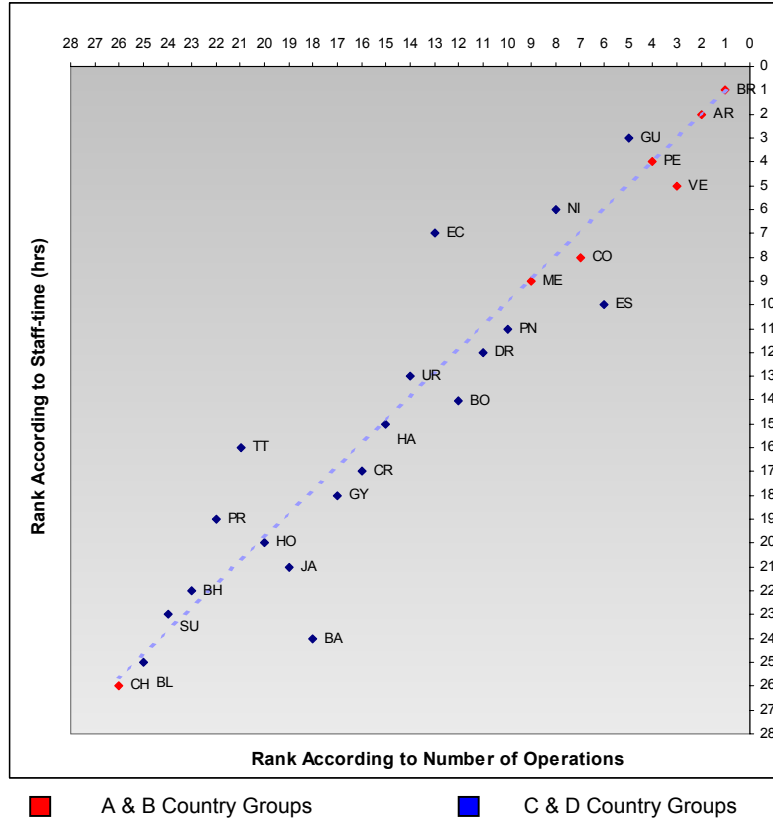


From Graph 3 above, it can be seen that 80% of the countries fall within the range of 1000-600 staff hours per operation, regardless of their GNP per capita.

Therefore, a more heuristic approach was used in order to reflect levels of correlation between Staff-time reported vs. the number of operations in the work program, as shown in Graph 4:

This graph seems to indicate some correlation between the ranking of a country based on its relative participation in the Bank's work program, vs. a country's ranking based on its relative participation of the total number of staff-hours reported for 1998. This correlation is more accentuated for A & B Country Groups.

Graph 4
1998 Comparative Ranking
Staff-time Score vis-à-vis Number of Operations Score



Major Findings

The level of Bank program effort seems to be related to annual negotiations between the Bank and the countries during their programming exercise as reflected by the operative indicators, rather than on exogenous measurements (level of development such as GNP or HDI indexes). There is no clear evidence of a relationship between the level of economic and social development and the level of Bank effort per operation. However, as might be expected, countries with higher GNP receive a higher level of total Bank operational effort by virtue of their total number of individual operations. Relatively speaking, all countries, independently of their degree of development, receive a similar support from the Bank.

Human Development Index

Human Development Reports, since the first in 1990, have published the human development index (HDI) as a measure of human development. Recognize, however, that the concept of human development is much broader than the HDI. It is impossible to come up with a comprehensive measure—or even a comprehensive set of indicators—because many vital dimensions of human development are non-quantifiable. But a simple composite measure of human development can draw attention to the issues quite effectively. The HDI is not a substitute for the fuller treatment of the richness of the concerns of the human development perspective.¹

The HDI measures the overall achievements in a country in three basic dimensions of human development—longevity, knowledge and a decent standard of living. It is measured by life expectancy, educational attainment (adult literacy and combined primary, secondary and tertiary enrolment) and adjusted income.

Longevity	Knowledge	Decent Standard of Living
Life expectancy at birth	1. Adult literacy rate 2. Combined enrolment ratio	Adjusted per capita income in PPP\$

¹ Source: United Nations Development Programme, HUMAN DEVELOPMENT REPORT 1998, <http://www.undp.org/hdro/98.htm>

