

PH REP-080

8/16

THE FEASIBILITY OF USING CREDIT TO FINANCE CAPITAL PROJECTS

**Prepared for:
Bureau for Private Enterprise
U.S. Agency for International Development**

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**Sponsored by:
Private Enterprise Development Support Project II
Project Number 940-2028.03
Prime Contractor: Coopers & Lybrand**

May 11, 1992

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EXECUTIVE SUMMARY

For more than thirty years, the Agency for International Development has strived to meet the economic and social needs of developing countries. With the emergence of new programs in Central and Eastern Europe, and now the Commonwealth of Independent States, these needs grow ever larger. At the same time, however, the budgetary resources and the constituency for addressing the needs of developing countries grow smaller. The Agency can no longer think in terms of using its own resources alone to meet developmental needs; the scope and the cost of the problems faced by its clients are just too vast. Rather, the Agency must increasingly think about how it can best leverage its funds to mobilize and target additional resources for development.

These considerations are at the heart of the Partnership for Business and Development, an initiative launched by the Administrator of the Agency for International Development in December 1990. The initiative seeks to tap a new and valuable resource for development, the United States private sector.

One of the key components of the Partnership for Business and Development is the establishment of a Capital Projects Fund. The primary objective of the fund is to finance developmentally-sound capital projects that meet the economic and social needs of the emerging markets in which A.I.D. works. A second, but equally important, objective of the fund is to support and strengthen U.S. trade and economic competitiveness. The Agency has requested \$100 million for fiscal year 1993 in order to create the Capital Projects Fund; this would be exclusively grant funding. The decision whether to add credit authority -- that is, the authority to use loans and loan guarantees, as opposed to grants only -- is the departure point for this study.

The purpose of this study is to assess the feasibility of using loans and loan guarantees to finance A.I.D.'s capital projects initiative. *A priori*, there are many advantages to using loans and loan guarantees. The fact that the lender must be repaid necessarily elevates the level of discipline and rigor required in the process of evaluating, constructing and managing capital projects. The project must be properly built, operated and maintained in order to generate the revenues needed to service the debt. Most capital projects are financed with credit, rather than grants. Moreover, the advent of credit reform within the federal government opens new possibilities to leverage budget authority. Now, a loan or loan guarantee requires an appropriation equal only to its "subsidy value," the amount that the government expects will not be repaid. This gives federal agencies, such as the Agency for International Development, the opportunity to leverage their limited resources via loans and loan guarantees. And as noted above, leveraging resources is increasingly important to the way A.I.D. conducts business. While there are advantages to using credit authority to finance capital projects, there are also a number of critical factors to consider. The first question the team sought to address was: is there a need to establish a loan or loan guarantee window within the Capital Projects Fund?

A. IS THERE A NICHE FOR A.I.D. IN CAPITAL PROJECTS FINANCING?

In order to answer this question, the team explored three aspects of the issue. First, we examined the existing resources of the U.S. government for financing capital projects in developing countries. Secondly, we looked at the strategies other industrialized countries have employed to link business and development objectives. Thirdly, and most importantly, the team obtained the views of the U.S. private sector on the need for a credit window within the Capital Projects Fund. Some of the team's key findings are the following:

- The United States government has a number of programs to finance capital projects in developing countries. The Trade and Development Program finances pre-feasibility and feasibility studies -- the first stage in developing capital projects. The Export-Import Bank facilitates export financing of U.S. goods and services -- a pivotal part of the construction phase of a project. The Overseas Private Investment Corporation finances projects in developing countries which have equity participation by an American firm.
- Each of these U.S. government institutions has an important mandate to fill in the project finance cycle. However, none of them have replaced the role A.I.D. once held in financing capital projects; nor do any of them fulfill the objectives that A.I.D. now holds for its Capital Projects Fund -- that is, addressing the infrastructure needs of developing countries and promoting long-term trade benefits for the United States.
- Like the United States, each of the major industrialized countries has a range of institutions which finance capital projects. However, unlike the United States, all of the other major donors also have an institution which is devoted to project finance for developing countries, a large portion of which is devoted to capital projects. The primary mechanism donors have employed to link development and trade objectives is lending for capital projects, often at highly concessional rates. Only the United States lacks a similar project finance facility. Indeed, A.I.D. has continuously reduced its involvement in capital projects over the past decade. This has had important ramifications not only for developing countries, but also for U.S. competitiveness.
- The American business community believes it is at a distinct disadvantage vis-a-vis its foreign competitors in securing new business in developing countries. The major problem is competitive finance. U.S. engineering and construction firms believe that the U.S. government has moved too far away from capital projects and strongly advocate the creation of a Capital Projects Fund.
- There is a distinct role for A.I.D. in the capital projects cycle, a role which is neither duplicative nor competitive with the mandates of other U.S. government agencies -- **the creation of a project finance facility that focuses on the infrastructure needs of developing countries and the potential for long-term U.S. trade benefits.** Because agencies such as TDP, EXIM and OPIC also play an important role in financing capital projects, it will be critical for A.I.D. to collaborate closely with these institutions.

B. IS IT FEASIBLE TO USE CREDIT AUTHORITY TO FINANCE CAPITAL PROJECTS?

As noted previously, A.I.D.'s two primary objectives for the Capital Projects Fund are to finance developmentally-sound capital projects and to promote long-term trade benefits for the United States. In addition, A.I.D. has defined five other requirements for the facility that have a direct impact on the feasibility of using credit authority, as opposed to grants. To meet A.I.D.'s parameters, the Capital Projects Fund must have the following features:

- (a) The ability to meet OMB requirements for new federal loan and guarantee proposals*
- (b) The ability to derive realistic and acceptable subsidy estimates*
- (c) The ability to generate other sources of funds, particularly private sector funds, for co-financing capital projects*
- (d) The ability to comply with the OECD guidelines on tied aid*
- (e) The ability to finance private sector capital projects*

The team's findings and conclusions with respect to each of these screens are summarized below.

- **THE REQUIREMENTS OF OMB**

The Office of Management and Budget is charged with reviewing all new federal loan and guarantee proposals. Two of the issues that will be of concern to OMB are whether the program proposed by A.I.D. is methodologically sound, and whether it might duplicate or contradict other government agencies' efforts. In its request for credit authority, the Agency should be sensitive to this concern, and clearly define its niche vis-a-vis other U.S. government agencies. A.I.D. must also demonstrate its ability to administer the credit portfolio properly. Effective loan administration involves application of appropriate accounting systems, and timely and comprehensive loan information systems. Finally, A.I.D. must demonstrate that it has established a rigorous process for screening loans and guarantees and categorizing them into various risk categories.

- **SUBSIDY ESTIMATES**

Under credit reform, all federal agencies are required to determine "subsidy estimates" for loan and loan guarantee programs. The subsidy estimate is used to calculate the amount of annual appropriation required for a federal loan or guarantee program. It is essentially the reserve amount that each agency sets aside to offset potential losses from the program. OMB's

confidence in the derivation of the subsidy estimate is an important consideration with respect to clearing a proposal for new program authority. Because the subsidy captures all the financial characteristics of the loan transaction and can be directly compared to alternative funding methods, it must be derived using methodologies that meet OMB requirements and use assumptions based upon sound financial reasoning and, if available, empirical evidence. It behooves A.I.D. to be rigorous in its subsidy calculations and conservative in its approach.

- ***LEVERAGE***

The subsidy estimate is also critical from the perspective of leveraging resources. The higher the subsidy estimate, the less financial leverage can be gained. To the extent that the subsidy estimate is very high, the advantages of using credit over grants may be called into question. Additional leverage can be gained by co-financing capital projects with other institutions, including other U.S. government agencies, and other bilateral and multilateral organizations.

- ***THE OECD GUIDELINES ON TIED AID***

At the urging of the U.S. Treasury, the participants of the Organization for Economic Cooperation and Development have agreed to a new set of rules and procedures to limit the use of tied aid, particularly when tied aid is likely to distort trade (as is often the case with capital projects). Tied aid is defined as concessional finance linked to the procurement of goods and services. The relatively wealthy developing countries are no longer eligible for any tied aid credits. For middle-income developing countries, tied aid is permitted under very limited circumstances: that is, if the concessionality level of the financing is above 80 percent, or if the project is not financially viable with market-oriented pricing. The least developed countries are exempt from the new guidelines because of their urgent need for concessional assistance, whether tied or untied. A minimum of 50% concessionality is required when providing tied aid credits to these countries.

The U.S. Treasury Department and Eximbank intend to closely monitor OECD participants' compliance with the new rules. Because of the U.S. government's lead role in developing the new rules, Treasury notes that A.I.D. should not seek to test the limits of the new guidelines, as many other donors may do. Rather, it should seek to finance projects that clearly fall within the new guidelines. The use of concessional finance within the Capital Projects Fund will need to be examined carefully on a case-by-case basis to ensure compliance with the new OECD guidelines on tied aid.

- ***PRIVATE SECTOR CAPITAL PROJECTS***

A.I.D. has a strong preference for using its credit authority to lend to private sector projects. In the process of LDC debt negotiations, many of the projects that A.I.D. financed in the past are now being written off. In addition, A.I.D.'s development philosophy has undergone a fundamental change since the Agency's early involvement with capital projects. During the past decade, A.I.D. has focused increasingly on strengthening the development of private sector

entities in developing countries. Consequently, A.I.D.'s renewed involvement in capital projects will not represent a return to the past, but rather, should reflect the Agency's commitment to private sector involvement in all facets of development, including capital projects.

A number of private sector opportunities in infrastructure development are beginning to emerge, particularly in power, telecommunications, and the environment. Some of the bilateral agencies are beginning to finance private sector capital projects, and both the IFC and OPIC are also starting to finance private sector capital projects in sectors that have traditionally been the domain of the public sector. Nonetheless, it is equally important to recognize that the role of the private sector in capital projects is still embryonic. There are many prospects for private sector projects, but few transactions have actually closed. Private sector participation in capital projects is nascent now, but is likely to grow. If A.I.D. were to finance only private sector projects, the pool of potential projects to be considered for finance would be smaller than if A.I.D. included public sector projects, particularly in the early years of the program. More importantly, limiting the portfolio to private sector projects would reduce the fund's ability to create opportunities to generate U.S. trade benefits and economic competitiveness.

C. CONCLUSIONS AND RECOMMENDATIONS

Based on the analysis contained within this study, the team concludes that it is feasible to use credit authority to finance capital projects and meet the criteria and requirements set by A.I.D. The team recommends that A.I.D. consider two models for the use of its credit authority. Ultimately, the decision regarding which model to choose will depend on A.I.D.'s broader policy and programmatic objectives.

The Private Sector Model: This model would involve lending only to private sector entities for capital project development. Given that private sector involvement in infrastructure development is just beginning to grow, the team estimates that A.I.D. would be able to lend in the range of \$100 million per year. A.I.D.'s participation in each project would be in the range of \$20 million, thereby enabling the Agency to support five new projects every year.

In order to determine the estimated size of A.I.D.'s portfolio under this model, the team examined other key bilateral and multilateral institutions' lending for private sector capital projects, excluding some sectors such as tourism, manufacturing, and mining, which are not priority sectors for A.I.D.'s Capital Projects Fund. The total amount of lending that these institutions provide for private sector capital projects in a given year -- excluding those in tourism, manufacturing, and mining -- is in the range of \$800 million to \$1 billion. We believe that A.I.D. will be able to finance slightly more than 10 percent of this amount, or about \$100 million. Assuming that project lending rates are slightly above the Treasury bench-mark rate, a conservative estimate of the subsidy required for a portfolio of projects under this model would

be 12 percent. Hence, under this scenario, A.I.D. would need to request \$12 million in budget authority for the credit portion of the Capital Projects Fund. This is a small facility, one which would necessarily produce more limited trade benefits than the model described on the following page.

The 75/25 Public-Private Model: Notwithstanding PRE's request that the team present a wholly private sector model, the team believes that the 75/25 public-private model holds a number of advantages. This model is based on the approach of the other major bilateral donors.¹ The major advantage of their approach is that it is designed to generate economic benefits for not only the developing country, but for the donor country as well. This is also an objective of the Capital Projects Fund.

However, we also recommend several important variations to the bilateral model. First and foremost would be the emphasis placed on creating opportunities for private sector participation in the ownership, management and financing of capital projects in developing countries. For this reason, the team has recommended that 25 percent of all lending under this model be targeted for private sector capital projects, a relatively high percentage compared to other bilateral agencies' programs. As noted above, the team estimates that A.I.D. would realistically be able to finance \$100 million in private sector projects in a given year. Using a ratio of 75:25 of public to private sector projects in the portfolio, A.I.D. could finance \$300 million in public sector projects per year. The team estimates that the average size of A.I.D.'s participation in a public sector project would be \$40 million, thereby enabling the Agency to support eight new projects in a given year. The combined portfolio of public and private projects would provide \$400 million in finance for an average of 13 new projects per year (8 public sector projects and 5 private sector projects).

Another major departure from the bilateral model would be the use of concessional finance. The team recommends that A.I.D. leave itself the option to use concessional finance for public sector projects; however, in light of the new OECD guidelines, the use of concessional finance should be carefully considered on a case-by-case basis. Assuming that A.I.D. makes limited use of concessional finance, a conservative estimate of the subsidy required for a portfolio of projects under this model would be 20 percent. Under this scenario, A.I.D. would need to request \$80 million in budget authority for the Capital Projects Fund.

The benefit of this model is that it is larger and would therefore provide increased opportunities for trade leverage. However, it is also important to recognize that the size of this model will not suffice to meet the demands of the U.S. private sector. Most of the U.S. businesses interviewed by the team believe that at least \$1 billion is necessary for A.I.D. to be a serious player in the business of capital projects financing. A.I.D. could potentially finance many more public sector projects, and perhaps more private sector projects as increased opportunities

¹ Chapter III of the report outlines this approach in detail, as well the multilateral and private sector approach.

emerge. However, in light of the fact that this is a new program which will require new policies, procedures and staff, we believe that A.I.D. should begin with a more modest program, test its ability to use credit authority to finance capital projects, and then determine to what extent the program should be expanded.

One key question remains. Does the 75/25 public-private model suggest a return to the way A.I.D. did business in the 1950s and 1960s? The team believes that, while there may be lessons to be learned from A.I.D.'s previous experience, the approach of the Capital Projects Fund is notably different from that of the past. Three factors distinguish the Capital Projects Fund:

► ***Developmental and Trade Benefits***

The primary objective of the Capital Development Fund is to finance developmentally sound capital projects that meet the economic and social needs of the emerging markets in which A.I.D. works. As is true of all A.I.D. projects, capital projects will be subjected to a rigorous development screen prior to authorization of funds. The second objective of the Capital Projects Fund is to promote U.S. trade and economic competitiveness. Only those projects which have the potential to meet the needs of developing countries and generate long-term trade benefits for the United States will be eligible for A.I.D. support under the Capital Projects Fund.

► ***Leveraging Resources through Partnerships***

In the past, A.I.D. often fully-funded the development of an infrastructure project, all the way from the initial feasibility study through the project's design, construction, and start-up. Clearly, A.I.D. no longer has the resources to renew this approach. Moreover, given the resources of other U.S. government agencies involved in the capital project finance cycle, as well as those of other multilateral and bilateral donors, it no longer makes sense for A.I.D. to assume this role. The Capital Projects Fund is based on the premise that A.I.D. will establish partnerships with U.S. businesses, other U.S. government agencies, and multilateral and bilateral institutions which can provide the additional resources and expertise needed to promote sound capital projects in developing countries.

► ***Private Sector Emphasis***

Lastly, opportunities are beginning to emerge for private participation in capital project development -- opportunities that rarely existed in the 1950s and 1960s. The 75/25 Public-Private Model recognizes the fact that most capital projects remain in the domain of the public sector, but encourages the creation of opportunities for private sector participation in the ownership, management, and financing of capital projects.

Both the 75/25 Public-Private Model and the Private Sector Model are examined in greater detail in Chapter VI of the study, as are their implications for staffing and administrative expenses. Ultimately, the decision whether to seek credit authority, and if so, which model to pursue, will depend on A.I.D.'s broader policy and programmatic objectives. In either case, the team urges

A.I.D. to give itself time to build the necessary systems for sound management and implementation of the program; to rely heavily on first-rate technical assistance in the early years in order to get the program up and running; to collaborate closely with OMB, Treasury, TDP, OPIC, and Export-Import Bank in the development of the program; and above all, to start out conservatively in the initial years of the program and build on a successful track record.

CHAPTER I

INTRODUCTION

For more than thirty years, the Agency for International Development has strived to meet the economic and social needs of developing countries. With the emergence of new programs in Central and Eastern Europe, and now the Commonwealth of Independent States, these needs grow ever larger. At the same time, however, the budgetary resources and the constituency for addressing the needs of developing countries grow smaller. The Agency can no longer think in terms of using just its own resources to meet developmental needs; the scope and the cost of the problems faced by its clients are just too vast. Rather, the Agency must increasingly think about how it can best leverage its funds to mobilize and target additional resources for development.

These considerations are at the heart of the Partnership for Business and Development, an initiative launched by the Administrator of the Agency for International Development in December 1990. The initiative seeks to tap a new and valuable resource for development, the United States private sector, in recognition of its expertise and competitive advantage in addressing the problems faced by developing countries.

One of the key components of the Partnership for Business and Development is the establishment of a Capital Projects Fund. The primary objective of the Fund is to finance developmentally sound capital projects that meet the needs of the emerging markets in which A.I.D. works. As the Agency has increasingly channeled its assistance toward private sector development, it has been reminded of the importance of infrastructure in creating a vibrant market economy. Moreover, infrastructure is critical to meeting basic human needs; without it, people's access to clean water, food, health services and education remains limited, particularly in rural areas. The process of building and maintaining capital projects involves transfer of technology from developed to developing countries, as well as the creation of employment and training opportunities for managers, engineers, skilled and unskilled workers in developing countries.

The secondary objective of the Capital Projects Fund is to promote U.S. trade and economic competitiveness. Capital projects require a wide spectrum of goods and services, ranging from architecture and design services to heavy capital equipment and high technology goods. American firms are competitive and have the potential to win many contracts for capital projects in developing countries.

This study does not assess the relationship between capital projects and development; nor does it explore the relationship between capital projects and trade in detail. Rather, the study begins with presumption that A.I.D. has decided to re-enter the capital projects arena because of its developmental and trade benefits. Indeed, the Agency has already requested \$100 million for fiscal year 1993 in order to create the Capital Projects Fund. This would be exclusively grant funding. The decision whether to add credit authority -- that is, the authority to use loans and loan guarantees, as opposed to grants -- is the departure point for this study.

The purpose of this study is to assess the feasibility of using loans and loan guarantees to finance A.I.D.'s capital projects initiative. *A priori*, there are many advantages to using loans and loan guarantees. The fact that the lender must be repaid necessarily elevates the level of discipline and rigor required in the process of evaluating, constructing and managing capital projects. The project must be properly built, operated and maintained in order to generate the revenues needed to service the debt. Moreover, the advent of credit reform within the federal government opens new possibilities to leverage budget authority. Now, a loan or loan guarantee requires an appropriation equal only to its "subsidy value," the amount that the government expects will not be repaid. This gives federal agencies, such as the Agency for International Development, the opportunity to leverage their limited resources via loans and loan guarantees.

While there are advantages to using credit authority to finance capital projects, there are many other factors to consider in thinking about how A.I.D. should use and manage its credit authority. The debt crisis has resulted in U.S. government debt forgiveness programs and an aversion to terms of assistance which complicate the debt burden, as would be the case with credit authority. This will necessarily have an impact on how and where A.I.D. might use its credit authority.

A.I.D.'s proposal will be carefully reviewed by the Office of Management and Budget. OMB will seek to determine whether (i) A.I.D.'s proposed use of credit authority is conceptually sound and does not duplicate or contradict other government agencies' efforts; (ii) A.I.D. has the managerial and administrative capacity to carry out its credit authority; and (iii) A.I.D. has derived subsidy estimates based on sound financial reasoning.

Yet another important consideration is the new guidelines on tied aid agreed to within the Organization for Economic Cooperation and Development. These guidelines give foreign assistance agencies, such as A.I.D., the opportunity to use grants as they wish to fund projects in developing countries. However, they severely restrict the use of credit authority. Under the new guidelines, the use of concessional finance tied to the procurement of U.S. goods and services is permitted under very limited circumstances. The question is, in light of these new guidelines, to what extent can A.I.D. promote development and U.S. economic competitiveness via capital projects -- as many other donors have done in the past.

These are some of the key factors to be considered in assessing the feasibility of using loans and loan guarantees to finance A.I.D.'s capital projects initiative. Each of the chapters of this report explores a different facet of the issue. Chapter II examines the rationale for A.I.D.'s renewed interest in capital projects. It also looks at the question of whether there is a need to establish a credit window within the Capital Projects Fund, and if so, what is the need. Following from the need defined in Chapter II (a gap in U.S. financing), Chapter III explores how other bilateral and multilateral development lending institutions use loans and loan guarantees for capital projects to fill this gap. Given this description of other donors' methods of capital projects finance, Chapter IV looks closely at A.I.D.'s objectives and requirements for the use of credit authority to finance capital projects. Most importantly, it seeks to determine whether any of the approaches used by the bilateral and multilateral institutions would enable A.I.D. to achieve its

objectives and requirements for the use of credit authority. Chapter V examines the remaining A.I.D. requirement -- private sector participation -- against the background of recent trends in capital projects finance. Finally, Chapter VI looks at the options for A.I.D. in light of its objectives and requirements. It outlines two possible scenarios for the use of credit authority, their implications for credit and risk management, and their implications for management, staffing, and administrative costs. To assist the reader in finding specific sections of the report, an annotated outline of the report's findings and conclusions is included in Annex 9.

This study was prepared by Coopers & Lybrand at the request of A.I.D.'s Bureau for Private Enterprise under the aegis of the Private Enterprise Development Support Project. The Coopers & Lybrand team included the following individuals:

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The Coopers & Lybrand team would like to extend its appreciation to all of the individuals we interviewed, who so willingly gave their time and perspectives to the benefit of this study. The team had the opportunity to interview representatives of U.S. businesses, the bilateral and multilateral donor community, U.S. government agencies including the Agency for International Development, the Treasury, the Office of Management and Budget, the Export Import Bank, the Overseas Private Investment Corporation, and the U.S. Trade and Development Program, as well as a number of leading thinkers on the issue of capital project financing. A list of the individuals interviewed by the team is included in Annex 2 to the report. The team gratefully acknowledges the assistance of these individuals in conducting this study.

CHAPTER II

CAPITAL PROJECTS: A STRATEGY FOR PROMOTING BUSINESS AND DEVELOPMENT

The Partnership for Business and Development, an initiative launched by the Administrator of the Agency for International Development in December 1990, seeks to tap a new and valuable resource for development, the United States private sector. Environmental products and services, telecommunications, energy, and financial services are just some of the key areas in which the U.S. private sector brings world-class technological expertise and resources. These are also some of the areas which pose major constraints to the emergence of sound market-based economies in developing countries.

True to its name, the Partnership for Business and Development Initiative seeks not only to draw on U.S. business expertise, but also to promote opportunities for the U.S. private sector in developing countries. Many American firms are already investigating opportunities for trade and investment in the emerging economies in which A.I.D. operates. However, even though U.S. firms may often have a technological advantage over their foreign competitors, they face many other barriers to entry in emerging markets. Reducing those barriers and assisting U.S. firms to develop new opportunities for business in emerging markets is an important dimension of the Partnership. As stated in the Administrator's description of the Partnership for Business and Development Initiative, "mutual benefit to the economies of the developing countries and the American economy will be the litmus test for this initiative." The Partnership for Business and Development Initiative has six major components:

1. **The Capital Projects Fund** to support developmentally sound capital projects of direct strategic relevance to U.S. competitiveness.
2. **The Business and Development Network** to provide advice and information to American firms seeking to do business in the countries in which A.I.D. operates.
3. **The Business Advisory Council** to provide A.I.D. with the perspectives of the U.S. business community as it implements the Business and Development Initiative.
4. **Emerging Sectors in Development** to launch initiatives in key sectors such as telecommunications and the environment that offer major benefits to both developing economies and the U.S. private sector.
5. **Competitiveness Through Universities** to leverage the resources of American universities and business schools.
6. **Business Internship Program for Emerging Markets** to develop a cadre of future business leaders that have the skills to conduct business in emerging markets.

While all six of the components of the Partnership for Business and Development Initiative invite extensive collaboration with the U.S. business community, the Capital Projects Fund in particular promises significant benefits for the U.S. in terms of trade and employment. Capital projects by their very nature present opportunities for development and business interests to merge. This chapter begins by looking at what we mean by capital project development and then explores the rationale for A.I.D.'s renewed interest in capital projects.

A. CAPITAL PROJECTS DEFINED

The Agency for International Development defines capital projects as "projects and supporting activities which encourage economic development by creating, replacing or rehabilitating physical assets in a developing country." This definition focuses on two factors: **development and physical assets**. The development requirement means that a capital project supported by A.I.D. must contribute directly to the improvement of the country's economic and social welfare and be a cost-effective use of resources. In focusing on physical assets, the definition includes the "bricks and mortar" of construction, as well as capital equipment and machinery. However, it does not exclude the services required to create, replace or rehabilitate physical assets. These might include services to develop the specifications and engineering plans for a capital project, supervise its construction, or improve its operations or maintenance. In addition, an A.I.D. supported capital project would most likely include technical assistance and training to support all phases of the project: planning, development, management, operations, and maintenance.

Capital projects span a broad range of sectors. While the definition outlined above is all-encompassing in terms of sectors, in practice, A.I.D.'s vision of developmentally-sound capital projects will circumscribe the range of sectors it is willing to support via the Capital Projects Fund. Hence, this study focuses on opportunities for A.I.D. capital project development in the following sectors: telecommunications, power, transportation, water and sewer systems, irrigation, and the environment. Other sectors such as mining, manufacturing, and tourism facilities are discussed in the study -- because other donors consider them legitimate areas for capital project financing -- but are discussed with the recognition that these are not priority sectors for A.I.D.'s Capital Projects Fund.

Another perspective on the definition of capital projects can be gained by looking at the various components or phases of capital project development. Generally, a capital project is comprised of five primary components. The first step is the pre-feasibility stage, where some of the initial engineering and finance issues are examined. This is usually followed by a feasibility study, which looks at the costs and benefits of the project in much greater detail; the feasibility study examines the macro-economic environment of the country, as well as engineering, financial, legal and other institutional considerations. Assuming the project is deemed feasible, the next stage involves the development of detailed engineering plans and technical specifications for the project. This stage is particularly critical because the specifications are often written to favor a particular exporting country's technology, thereby setting the stage for the next stage of the project: construction and procurement of capital equipment. The last phase of the project

encompasses start-up, operations and maintenance. In some countries, an operations and maintenance support phase of the project may be included for up to five to ten years. The primary components of capital projects and their estimated costs are summarized below.

<u>Components of Capital Project Development</u>	<u>Cost Range</u>
◆ Pre-Feasibility and Feasibility Studies	1 to 2%
◆ Engineering and Design Studies	5 to 10%
◆ Construction and Procurement of Capital Goods	85 to 95%
◆ Start-Up	0 to 5%

B. THE RATIONALE FOR INVESTING IN CAPITAL PROJECTS

The rationale for A.I.D.'s renewed interest in capital projects rests on these two factors: (i) the need for a stronger base of infrastructure in the developing nations in which A.I.D. works, and (ii) the opportunities -- and constraints -- to U.S. involvement in capital projects. Since more than a decade has lapsed since U.S. assistance has been widely and actively devoted to capital projects, it is worth restating the problems that inadequate infrastructure present to development and the constraints faced by U.S. businesses that embark upon capital project endeavors.

1. The Needs of Developing Nations

Over the past ten years, the Agency for International Development has increasingly channeled its assistance toward private enterprise development. In doing so, it has been reminded of the importance of infrastructure, and hence capital projects, in developing a vibrant market economy. There is no question that the lack of strong infrastructure is a major deterrent to investment and private sector development. While the problems of the various regions in which A.I.D. operates are vastly different from one another, inadequate infrastructure is a theme common to virtually all emerging markets, be it Africa where infrastructure systems are often non-existent or weak, or Eastern Europe, where infrastructure is in desperate need of repair.

An example from the most recent World Development Report, The Challenge of Development, illustrates how costly the lack of infrastructure can be to the development of a private sector. Based on a survey of firms in Nigeria, the World Bank has found that the costs of weak infrastructure for manufacturing enterprises are extremely high. Every firm of more than fifty employees that was surveyed had its own standby generator despite being connected to the power grid. Each of the firms had invested an average of \$130,000 in their own power supplies. In addition, manufacturing firms in Nigeria invest in private boreholes because of the unreliable water supply. They have to rely on messengers or radio transmitters because of poor telephone and postal systems. The World Bank estimates that the cost of such private facilities ranges

from 10 to 25 percent of the value of the firms' equipment, resulting in low productivity and diminished prospects for the Nigerian business community (The World Bank, p. 85).

Yet another example can be drawn from Eastern Europe, where the lack of infrastructure has proven to be a major constraint to foreign and domestic investment. Eastern Europe "has pitfalls to investment that can deter all but the hardest risk takers." A critical pitfall is the region's decaying infrastructure: "the primitive roads, phone systems and factories" (Time, July 2, 1990). In order to promote market economies in Eastern Europe, the region needs infrastructure which has the capacity to support private sector development and growth. This does not necessarily mean new infrastructure. Unlike many of the countries in which A.I.D. works, much of the basic infrastructure exists in the region. However, the infrastructure has been over-used and under-repaired. Moreover, technological deficiencies render the region's infrastructure completely inadequate for conducting business. In Poland, for example, weak telecommunications systems hamper the development of computer networks, which in turn prevents the development of electronic banking systems.

While placing emphasis on private sector development, the Agency for International Development has maintained its commitment to meeting basic human needs. But again, in many cases, lack of essential infrastructure has thwarted A.I.D.'s ability to achieve its objectives. Due to the absence of adequate water treatment facilities, clean water is still not available to the vast majority of the people in developing countries. Diseases and poor health are frequently due to the absence of treatment facilities. And without transportation systems, both health and educational facilities remain out of the reach of many rural residents.

There are many other development benefits to investments in capital projects, one of the most important being the direct effect that capital projects can exert on employment in a developing economy. In the short term, a vast number of skilled and unskilled workers are needed to build infrastructure. In the long-run, however, a cadre of workers is also needed to operate and maintain capital projects.

Finally, both the World Bank and the Agency for International Development have found that capital projects can be a mechanism for encouraging sectoral policy reform. Indeed, the Bank undertakes few infrastructure projects in which sectoral policy reform is not a major objective. For example, electric power and water treatment plants may be conditioned on increases in user tariffs, leading to a more rational allocation of economic resources.

2. Opportunities -- and Constraints -- to U.S. Business

The weaknesses in infrastructure in developing countries no doubt prevent or deter many American firms from doing business in these emerging markets. For other firms, however, these very weaknesses offer new business opportunities. American firms have the technical expertise to address many of the key infrastructure problems facing developing nations. Indeed, in many areas of infrastructure development, the United States holds a comparative advantage over its foreign competitors.

The key is to link the infrastructure needs of developing countries with U.S. expertise and resources. There are three sectors in which the opportunities for such linkages are particularly strong: **telecommunications, energy, and the environment**. These are areas in which (i) the lack of adequate infrastructure is a critical impediment to the development of a private sector, and hence, economic growth; (ii) the U.S. business community has a competitive advantage vis-a-vis its foreign competitors, and (iii) the U.S. stands to gain major long-term trade benefits.

Meeting the need for better infrastructure in developing countries is the most important objective of A.I.D.'s Capital Projects Fund. However, promoting long-term trade benefits for the United States is also an important -- albeit secondary -- objective of the A.I.D. Capital Projects Fund. Capital projects inherently involve immediate and large purchases of equipment and services; they draw upon a wide spectrum of exports, ranging from architecture and design services to procurement of products and heavy capital equipment. More importantly, however, capital projects set the stage for generating long-term trade benefits -- unlike other types of assistance. Once a country adopts a technology for its power or telecommunications systems, for example, it is difficult to change technologies at a later date. Hence, the donor country which is involved in a capital project's first stages of development is likely to be the country which enjoys continued trade and exports linked not only to that project but also, because of the technology standards set in the beginning, to that sector as a whole. The result? Development benefits for the recipient country and trade and employment benefits for the donor country.

The long-term nature of capital projects -- in terms of development and business objectives -- has not been overlooked by other donors. In fact, all industrialized nations, to one degree or another, use their foreign assistance to develop opportunities for their own businesses and enhance their nation's economic competitiveness. Until recently, the United States was the only major donor to make a clear distinction between its programs to promote economic development and programs to encourage U.S. trade. Today's aid and trade environment has provoked rethinking of this stance. In particular, the following factors have convinced the U.S. government of the need to actively pursue partnerships for development and business:

- On a technical level, U.S. companies can compete for and win contracts for capital projects in developing countries. From a financial perspective, however, U.S. firms are often at a disadvantage. Foreign competitors are often able to offer more attractive financing packages, made possible by grants or concessional financing by their respective development agencies. Usually such financing is provided under the assumption that it will prove beneficial in the long term, because of the trade leverage engendered.
- Because of their technical expertise, U.S. businesses may be the best and most appropriate sources from which developing countries could obtain materials and support for their capital development projects: U.S. companies can set the technological standards that developing countries want. However, developing countries may be forced to accept less appropriate technology simply because another donor has provided financing or other support to a particular company. In both the short- and the long-term, the U.S. company loses, as well as the developing country.

- **Lack of familiarity with U.S. technologies often precludes developing countries from making the best choice in infrastructure development. This is particularly a constraint in Eastern Europe, where decision-makers lack the knowledge and practical experience with U.S. products and services that they have of European goods. Moreover, most of the industrialized nations provide considerable assistance to developing countries in the engineering and design phase of infrastructure projects. As a result, the specifications for major procurements are often written to favor non-U.S. technologies. Again, both developing countries and U.S. businesses stand to lose.**
- **Lack of familiarity and experience with U.S. technologies also means that American firms must expend considerable time and money to penetrate emerging markets. However, many of the firms with expertise in environmental and energy technologies tend to be relatively small firms. These firms can rarely afford the costs or the risk inherent in trading or investing in what they perceive to be risky markets. Hence, the level of American business involvement is lower than desirable.**
- **Lastly, capital projects is an area in which development and business expertise can merge to the mutual benefit of developing countries and the United States.**

3. Congressional Initiatives

Yet another factor motivating the creation of the Capital Projects Fund in A.I.D. is the United States Congress. Congress has become increasingly aware of other donors' foreign assistance practices, particularly those which result in adverse trade consequences for the United States. It has also listened to the American public, which wants U.S. foreign assistance to work to the advantage of both U.S. citizens and citizens of developing countries. In light of these two considerations, Congress has now become convinced that "good" development can be achieved with active involvement of U.S. companies and that A.I.D.'s activities should reflect this conviction. Both A.I.D. and Congress see capital projects as an area where development and U.S. business interests are particularly complementary. Following this viewpoint, Senators Boren, Bentsen, Byrd, and Baucus have introduced legislation to require A.I.D. involvement in capital projects development. Subsequent amendments have been made to this bill, which has not yet been enacted.

The Boren, Bentsen Bill embraces the philosophy that A.I.D.-funded capital projects can foster trade benefits and jobs in the United States, while at the same time accomplishing worthy humanitarian, environmental, and economic development goals in developing countries. The most recent version of the bill authorizes \$750 million for FY92 and \$1,000 million for FY93 for capital projects, with funding derived from Economic Support Funds, SAI, and SEED funds. It targets grant funds, and does not authorize the use of loans or guarantees for capital projects. A strict "Buy America" clause is included in order to link development with U.S. business and to counteract other donor practices (such as tied aid or mixed credits) which put U.S. firms at a competitive disadvantage. A.I.D. agrees with the basic premise of the Boren, Bentsen Bill: capital projects are critical to promote development objectives and U.S. economic

competitiveness. On the other hand, as is discussed below, implementation of such a bill may be complicated by the new OECD rules restricting tied aid. The Capital Projects Fund is intended to carry out the spirit of the Boren, Bentsen Bill, to the extent possible under the new OECD rules, thereby providing an alternative to a Congressionally-mandated program.

4. Credit Reform

As noted in the beginning of this chapter, the geographical scope of A.I.D.'s work has grown over the past few years. At the same time, its resources are stretched thin over many different regions and many different programs. Given that infrastructure is so resource-intensive, one might ask whether A.I.D. should use its scarce resources to invest in capital projects.

It is the advent of credit reform within the federal government that has opened new possibilities for A.I.D. involvement in capital projects. Prior to credit reform, government accounting principles treated direct loans in the same manner as grants, even though direct loans entail the prospect of payback that should result in recovery of most of the cost of the outlays. For A.I.D.'s purposes, this situation meant that the Agency had to use the same amount of budget authority in a given fiscal year whether it funded a project through a grant or through a loan. This accounting procedure was particularly significant in the case of capital projects, since they by nature often require large amounts of money for which A.I.D. would have needed to allocate budget authority dollar for dollar.

As a result of credit reform, a guarantee or loan requires an appropriation equal only to its "subsidy" value, which is the amount that the government expects will not be repaid. Because fees and interest are charged for the loan or guarantee, the subsidy may be 10%, 5%, or less. Accordingly, for example, \$20 million in budget authority could be converted into \$100 million or more in loans or guarantees, if the subsidy value of its program were less than 20%. Credit reform gives A.I.D. an opportunity to leverage its resources to finance infrastructure projects. In assessing whether A.I.D. should finance capital projects using loans or loan guarantees, one of the key factors to be considered is the estimated subsidy value of the program.

The Capital Projects Fund aims to encourage the American private sector to participate in infrastructure projects in developing countries. The key question is: how can A.I.D. best address the infrastructure needs of the emerging markets in which it operates, with the expertise and resources of the American business community? More specifically, is there a need to establish a loan or loan guarantee window within the Capital Projects Fund to finance infrastructure in developing countries?

To answer these questions, the team explored three aspects of the issue. First, we examined the existing resources of the U.S. government for financing capital projects in developing countries in an effort to ensure that A.I.D. builds on the other programs of the U.S. government, and complements rather than duplicates existing efforts. Secondly, we looked at some of the key

strategies other industrialized nations have employed to link business and development objectives. Thirdly, and most importantly, the team obtained the views of the U.S. private sector on the need for a loan and loan guarantee window within the Capital Projects Fund. Our findings are summarized below.

C. U.S. GOVERNMENT RESOURCES FOR FINANCING CAPITAL PROJECTS

1. The Agency for International Development

The Agency for International Development has a long history of designing and implementing capital projects in developing countries. Throughout the 1950's and 1960's, such projects were viewed as crucial components of the development process and therefore essential elements of A.I.D.'s program. The Development Loan Fund was the cornerstone of A.I.D. capital projects development during this period. Established in 1958 as an independent government corporation, the Development Loan Fund extended loans and other forms of credit primarily for capital projects. During the years 1958 to 1961, the Development Loan Fund operated much like a commercial bank except that it accepted local currency repayment, thereby softening its loan terms. When the Fund was subsumed within A.I.D. after A.I.D. was established in 1961, its activities remained substantially the same, i.e. it continued to use credit mechanisms to fund capital projects. However, after 1961, local currency repayment was abandoned, and concessional terms became available only through subsidized interest rates for certain countries. Throughout its existence (either as an independent agency or as a part of A.I.D.), the Development Loan Fund actively attempted to involve the private sector in capital projects and to promote private sector investment in developing countries, using such mechanisms as risk-sharing and partnerships.

In the 1970's, however, A.I.D.'s programmatic focus changed. The U.S. decided that: (a) its bilateral assistance should be devoted to projects that directly reach the poor; (b) multilateral organizations could marshal greater resources for capital projects and would do so without commercial motivations; and (c) because its bilateral assistance resources were scarce, A.I.D. should decrease its level of funding devoted to capital projects. Concomitantly, the United States increased its contributions to the World Bank and other multilateral development institutions in order to finance capital projects. This division -- financing capital projects through contributions to multilateral institutions and financing projects to address "basic human needs" through bilateral assistance -- continued through the 1970s and 1980s. Similarly, the percentage of A.I.D.'s bilateral funding devoted to capital projects continued to fall, as illustrated in the table on the following page.

Nevertheless, even today A.I.D. retains some involvement in capital projects. A.I.D. has participated in capital project development primarily in Egypt, the Philippines and Southern Africa, but also in countries as diverse as the Gambia, Somalia, Sri Lanka, Pakistan, Thailand, Indonesia and the Dominican Republic. The differences in project size are great. Some of A.I.D.'s capital projects have been as small as \$5 million and others have been as large as \$340

million. Moreover, project types range from railways and roads to power and irrigation/water systems. Though diminished in scale when compared to earlier years, this continuing A.I.D. experience with a wide variety of projects and countries will contribute greatly to the success of renewed, innovative efforts in the area of capital projects. A.I.D. is currently undertaking a reconnaissance study of its experience in capital project development. The lessons learned through this experience should prove invaluable to the design of the Capital Projects Fund.

TABLE II-1

CAPITAL PROJECTS AS A PERCENTAGE OF A.I.D.'S TOTAL BUDGET

<u>FY</u>	<u>Capital Projects</u> (\$ million)	<u>A.I.D. Budget</u> (\$ million)	<u>Capital Projects</u> <u>Percent of Budget</u>
1984	1025	5200	19.7
1986	700	5800	12.0
1988	580	5800	10.0
1990	690	6600	10.0
1991	570	6400	8.9
1992	430	6500	6.6

Source: "Capital Projects: Questions and Answers," prepared by Fred Zobrist, U.S. Agency for International Development, August 21, 1991.

In 1990 and 1991, A.I.D. and the Export Import Bank jointly launched a new initiative to counteract the chronic problem of tied aid in selected Asian countries. The two institutions established a \$500 million mixed credit program to finance U.S. exports for capital projects in Indonesia, the Philippines, Thailand, and Pakistan. Most of the activities financed to date have been in the telecommunications industry, followed by the energy sector, where the competition from foreign firms which benefit from concessional finance is particularly stiff. Both are high-growth sectors that should lead to continued cooperation between U.S. business and the participating countries.

The establishment of the Capital Projects Fund under the Partnership for Business and Development demonstrates a fundamental shift in focus. A.I.D. has requested \$100 million to create the fund in fiscal year 1993. In addition, in October 1991, A.I.D. established the Capital Projects and Engineering Office within the Bureau for Private Enterprise. The plan is to develop an office consisting of three divisions: Operations, Engineering, and Program. The last division

will hold primary responsibility for the activities that occur under the Capital Projects Fund, including the responsibility to engage U.S. firms as capital projects partners.

2. The U.S. Trade & Development Program

The U.S. Trade & Development Program (TDP) aims to stimulate U.S. trade while promoting economic development in developing countries. As stated in its most recent Annual Report, TDP's mission "is to promote U.S. exports in priority development projects. This means there is an expected return in the form of exports on every dollar that goes to a TDP project" (1991 Annual Report, p. 2). Over the past ten years, TDP has provided \$194 million in grants to assist countries in planning the early stages of capital projects. TDP estimates that nearly \$4 billion of U.S. goods and services have been associated with its activities to date.

TDP's primary activity is to finance pre-feasibility and feasibility studies for capital projects. In fiscal year 1991, TDP funded 65 feasibility studies; the average size of the feasibility study grants was \$400,000. In addition, TDP funded 35 orientation visits to the United States for foreign officials; financed 14 conferences, workshops, and technical exhibitions; and provided a number of grants for U.S. technical assistance, training, and other project planning services. The primary sectors in which TDP operates are the following:

- Energy and Natural Resources
- Water and Environment
- Telecommunications
- Transportation
- Manufacturing
- Health Care and Education

The range of TDP's activities is necessarily limited by its size. It has a staff of 28 individuals, all of whom are based in Washington, D.C., and it manages an annual program budget of less than \$35 million. All TDP activities are funded by grants. The fact that TDP is small often works to its advantage; it has little bureaucracy and can respond quickly to the needs of the U.S. private sector. On the other hand, TDP faces stiff competition vis-a-vis similar institutions in other industrialized countries, which have substantially larger budgets and staff. For example, the Japan International Cooperation Agency (JICA) also funds feasibility studies and other pre-project support. JICA operates somewhat along the lines of TDP, but its budget is about \$1 billion per year -- nearly 30 times the size of TDP's budget. According to TDP management, TDP faces competition from JICA and similar institutions on every project it funds.

The Trade and Development Program works through the host government in developing countries. Typically, a local government agency or ministry makes a request for assistance via the U.S. Embassy or directly to TDP. On occasion, A.I.D. missions assist in the identification of feasibility studies to be financed by TDP; the U.S. private sector also actively seeks out opportunities for TDP-funded feasibility studies. TDP then conducts a preliminary internal review to make sure that: (i) the project is a development priority for the country; (ii) project financing has been identified and is likely if the study suggests project feasibility; (iii) the potential for U.S. exports during project implementation is significant; and (iv) TDP's assistance is "additive," that is, without its assistance, the project would not benefit U.S. exports.

After this initial review, TDP sends a mission of technical specialists to the country to gather additional information on the project, and to work with local authorities to develop a scope of work for an appropriate feasibility study or consultancy. If TDP determines that all funding criteria have been met, it may make an offer to the host government to support the study. The host government selects the U.S. firm to conduct the study. In most cases projects are undertaken in recipient countries by government entities.

TDP can also support private sector projects in which a U.S. investor plans to take an equity share, as long as the project is a priority for the host government. In the past, capital projects sponsored by private entities comprised roughly 10 percent of TDP's portfolio. Now, the split between public and private sector projects is about 75:25. This shift reflects the fact that private sector entities are beginning to play a role in infrastructure development in emerging markets; nonetheless, as TDP officials note, most large-scale capital projects remain in the domain of the public sector.

Lastly, TDP also funds training to enable managers, engineers and technicians from developing countries to implement projects and operate and maintain facilities post-construction. Such training strengthens the technical and managerial skills in developing countries, familiarizes the host country with U.S. equipment, and builds goodwill. Such training grants may also prove pivotal as an inducement to host country procurement from U.S. suppliers. Last year, TDP provided three training grants with a total value of \$640,000. These funds trained Eastern European telecommunications specialists, Indonesian electric power transmission workers, and Korean gas industry specialists.

3. The Export-Import Bank of the United States

The primary purpose of the Export-Import Bank is to facilitate the export of U.S. goods and services. It is not a development agency -- and while it does operate in some developing countries -- it has no development objectives *per se*. Through its programs, Eximbank fills the gaps in private sector financing. For example, Eximbank provides longer maturities in the face of commercial bank preferences for short-term lending; it also assumes credit risks that the private sector may find unacceptable; and lastly, it helps to neutralize the export credit subsidies of foreign governments.

The Eximbank has four mechanisms to facilitate export financing of U.S. goods and services. These include: direct and intermediary loans, guarantees, export credit insurance, and working capital guarantees.

Loans: Eximbank loans are extended to the foreign buyers of U.S. exports, and they help U.S. exporters match officially-supported foreign credit competition. By responding with its own subsidized loan assistance, Eximbank enables U.S. financing to be competitive with that offered by foreign exporters.

Guarantees: The Eximbank guarantees are extended to commercial lenders to provide repayment protection for loans to foreign buyers of U.S. exports. The guarantees are structured to encourage private financial institution lending at market rates to finance U.S. exports; Eximbank provides an unconditional commitment to pay in event the borrower does not. Guarantees are available for both medium-term sales (one to five years) and long-term sales (five to twelve years). The estimated loan levels, subsidy rates, and budget authority for Eximbank's direct loans and guaranteed loan programs are illustrated in the chart below.

TABLE II-2
EXPORT-IMPORT BANK
ESTIMATED LOAN LEVELS, SUBSIDY RATES, AND BUDGET AUTHORITY
(FY 1992 and FY 1993)

	AUTHORIZED LOAN LEVELS (\$000)	SUBSIDY ESTIMATES (percentage)	BUDGET AUTHORITY (\$000)
DIRECT LOANS			
FY 1992	915,000	13.30	142,304
FY 1993	2,080,000	6.10	127,600
GUARANTEED LOANS			
FY 1992	8,610,000	4.70	374,861
FY 1993	9,305,000	5.30	495,400

Source: U.S. Government, *The Budget for Fiscal Year 1993*, Appendix One, p. 947.

Other Programs: The export credit insurance program offered by Eximbank protects exporters against the failure of foreign buyers to pay their credit obligations. If the foreign buyer fails to repay the credit, Eximbank reimburses the exporter. Products covered include consumer goods, commodities, spare parts, and raw materials. Lastly, through its working capital guarantee program, Eximbank encourages commercial lenders to make loans to small companies that have exporting potential but need funds to produce or market goods or services for export.

During the past year, Eximbank also created a pilot project finance facility. To date, Eximbank has considered six projects, primarily in telecommunications and power, but has not fully approved any projects for finance.

4. The Overseas Private Investment Corporation

The Overseas Private Investment Corporation (OPIC) aims to promote economic growth in developing countries by encouraging U.S. private investment in new or expanding businesses. Such private foreign investment helps relieve debt service problems in developing countries, supplements aid and commercial lending flows, and helps promote viable and sustainable market-based host country economies.

OPIC assists U.S. investors through three programs: (1) investment finance through loans, loan guarantees, and growth funds; (2) political risk insurance; and (3) investor services, including advisory services, investment missions, opportunity bank and investor information service. With respect to the finance program, OPIC provides U.S. dollar-denominated loans and loan guarantees for business ventures involving significant equity and management participation by U.S. businesses. This financing usually takes the form of project financing, which is based on the economic, technical, marketing and financial soundness of the project itself, as opposed to a guarantee from the local government. The types of enterprises eligible for OPIC financing include: manufacturing, agricultural production, fishing, forestry, mining, energy development, storage, processing, and certain service industries. However, as stated in its annual report, infrastructure is one category of projects that OPIC generally does not finance (although OPIC has financed telecommunications facilities and provided insurance for both telecommunications and power projects).

In 1991, OPIC's staff totaled 145 individuals, all of whom are based in Washington, D.C.. As just mentioned, a primary responsibility of OPIC staff members is to generate public awareness of OPIC's program. Accordingly, OPIC conducts many seminars and other public information sessions designed to alert the U.S. private sector to OPIC's resources. Many of the projects that OPIC finances or insures are identified initially by private sector entities, which then contact OPIC to obtain financing or insurance. OPIC staff members responsible for credit and risk analysis then evaluate these projects. This sequence of events accords with OPIC's mandate -- to assist U.S. foreign investors overseas.

Like all other federal agencies which manage credit programs, OPIC is required to provide estimates of the subsidy costs of its loans and guarantees. Table II-3 details these estimates.

TABLE II-3

**OVERSEAS PRIVATE INVESTMENT CORPORATION
ESTIMATED LOAN LEVELS, SUBSIDY RATES, AND BUDGET AUTHORITY
(FY 1992 and FY 1993)**

	AUTHORIZED LOAN LEVELS (\$000)	SUBSIDY ESTIMATES (percentage)	BUDGET AUTHORITY (\$000)
DIRECT LOANS			
FY 1992	25,000	9.6	2,399
FY 1993	30,000	13.9	4,155
GUARANTEED LOANS			
FY 1992	375,000	---	---
FY 1993	500,000	1.5	7,450

Source: U.S. Government, The Budget for Fiscal Year 1993, Appendix One, p. 289.

In summary, the United States government does provide an array of resources for financing capital projects. In terms of the various phases of capital projects, the Trade and Development Program finances pre-feasibility and feasibility studies -- the first stage in the process of capital project development. The Export-Import Bank facilitates export financing of U.S. goods and services -- an important part of the construction phase of the project. OPIC finances businesses in developing countries which have significant equity and management participation by U.S. businesses. Each of these institutions has an important mandate to fill in the project finance cycle. However, none of them have replaced the role that A.I.D. once held in financing capital projects; nor do any of them fulfill the objectives that A.I.D. now holds for its Capital Projects Fund -- that is, meeting the economic and social needs of emerging markets and promoting long-term trade benefits for the United States.

The "gap" in capital project financing becomes more evident when we compare the resources of the U.S. government with those of the other major industrialized countries. All of the major donors have developed strategies to link the infrastructure needs of developing countries and the resources of their own business communities, which are significantly different from the strategy of the U.S. government. Some of the more important differences are illustrated in the following section.

D. THE STRATEGIES OF OTHER KEY DONORS

It is often assumed that the key difference between the U.S. and the other major industrialized countries is the level of tied aid. Tied aid is defined as aid tied primarily to procurement in the donor country. The U.S. government has devoted considerable resources to reducing tied aid practices. In 1989, the Export-Import Bank conducted an in-depth analysis of the ways in which donors combine aid with export credit to promote development and business objectives. One year later, the U.S. Department of Commerce re-examined the issue of aid-tying in a Congressionally-mandated study, International Financing Programs and U.S. International Economic Competitiveness. More recently, the U.S. government has negotiated vigorously -- and successfully -- for changes in the tied aid rules of the Development Assistance Committee of the Organization for Economic Cooperation and Development (OECD).

There is no doubt that the foreign assistance programs of the major donors have worked to the detriment of the American business community. However, it is not the level of tied aid that makes the critical difference, so much as the way in which other donors use their aid to promote business and development objectives. In fact, much of U.S. bilateral economic assistance is tied to the procurement of American goods and services. As the chart below illustrates, the United States falls roughly in the middle in its use of tied aid relative to its key competitors. And it is Japan that -- at least formally -- ties the smallest percentage of its foreign assistance.

TABLE II-4

**TYING STATUS OF BILATERAL OFFICIAL DEVELOPMENT ASSISTANCE
OF KEY DONORS, 1989**
(Percentage of the total for each donor)

	TIED	PARTIALLY TIED	UNTIED
Italy	58.4	---	5.8
United Kingdom	44.0	---	13.9
France	40.8	3.1	40.2
United States	40.2	17.5	30.9
Canada	36.5	2.9	27.9
Germany	32.5	---	39.4
Japan	13.8	3.0	59.6
Total DAC	33.0	5.6	36.5

Source: Development Co-operation: Efforts and Policies of the Members of the Development Assistance Committee, Organization for Economic Co-operation and Development, December 1991, Table 6, p. 177.

The figures on tied versus untied aid can be misleading and often mask the true relationship between aid and trade. For instance, Japan reports a project as "untied" if any portion of the project is untied. However, this procedure does not accord with OECD regulations, which stipulate that a project should be reported as "tied" if any portion of the project is tied. This helps to explain how Japan is able to report such a high percentage of untied assistance, relative to the other OECD participants.

In reviewing the strategies of the major industrialized countries, the team identified four key factors which help to explain the differences between U.S. development assistance programs and those of the other major industrialized countries. They include the following:

- ◆ The Focus on Capital Projects
- ◆ The Use of Concessional Finance
- ◆ A Unified and Coordinated Effort to Promote Business and Development
- ◆ The Use of Informal Tying Mechanisms

1. The Focus on Capital Projects

In large part, it is the focus on capital projects which gives the other major industrialized countries a competitive edge over the United States. Among the seven major donors, all countries but the United States target a significant percentage of their resources on capital projects. It is estimated that Japan and Italy devote about 55 percent of their respective foreign assistance budgets to capital assistance; Germany and the United Kingdom allocate 35 percent of their budgets to capital projects; and Canada and France, 20 percent. In contrast, the U.S. government currently allocates less than 7 percent of its foreign assistance budget to capital projects.

Moreover, since the mid-1980's, most donors -- with the exception of the United States -- have increased their financing of capital projects. Even those countries that have not been major suppliers of capital projects in the past, such as Australia, Canada, and the United Kingdom, have increased the share of their aid resources devoted to capital projects in response to domestic economic pressures. The table below also helps to illustrate the point. In three key sectors of infrastructure development -- telecommunications, energy, and transportation -- the other major donors allocated a considerably higher percentage of their aid than the United States.

TABLE II-5

**BILATERAL ASSISTANCE DEVOTED TO KEY INFRASTRUCTURE SECTORS:
TRANSPORTATION, COMMUNICATIONS and ENERGY (1989)**

Japan	31.7 %
Germany	31.6 %
Italy	26.4 %
United Kingdom	22.7 %
France	20.6 %
Canada	12.3 %
United States	4.7 %

Source: Development Co-operation: Efforts and Policies of the Members of the Development Assistance Committee, Organization for Economic Co-operation and Development, December 1991, Table 30, pp. 202-203.

The other major donors have focused on capital projects because (a) there is a real developmental need to be addressed through investments in infrastructure, and (b) capital projects create opportunities for trade and investment. Donors have aggressively sought out opportunities to finance capital projects, particularly in sectors which have the potential to generate major trade benefits for their countries. Capital projects in telecommunications, for example, have extremely high trade leverage. Once a country chooses a particular technology as the foundation for its telecommunication system, it is very costly and inefficient to change systems at a later date. Making strategic investments at an early stage is one of the many ways in which other donor nations enhance their trade leverage through foreign assistance. Relatively small investments in capital projects can generate sales of goods and services long beyond the life of the initial project.

In his article, "Trade, Aid, and Capital Projects" in The Washington Quarterly, Ambassador Ernest Prege notes that certain sectors are strategically important for bilateral donors. He cites the results of a survey of ten middle-income countries, primarily in Latin America and Asia, which helps to illustrate the point. In 1985-1986, these ten countries had \$1.3 billion in bilateral projects and \$5.7 billion of multilateral development bank projects in energy, transportation, and telecommunications; none of the projects were financed by the United States. Twelve percent of the finance for energy projects was bilateral money; 25 percent of the finance for transportation projects was bilateral; and 83 percent of the finance for telecommunications projects was bilateral. This illustrates the strategic importance of certain areas of infrastructure development to the bilateral agencies.

2. The Use of Concessional Finance

Not only do most of the industrialized countries focus on capital projects, but they do so by providing finance for infrastructure projects at highly concessional terms. This clearly puts American firms at a disadvantage. Foreign companies are able to offer very attractive financing packages with the support of their countries' foreign assistance programs. While American firms may often be technically competitive, rarely can they compete with the financial packages offered by their foreign competitors. The ways in which bilateral donors use concessional finance are explored in greater detail in the following chapter.

3. A Unified and Coordinated Effort to Promote Business and Development

For most of the major industrialized countries, the promotion of business and development objectives are inextricably tied. Bilateral development assistance programs are designed to benefit the economic interests of both the recipient country and the donor country. The key to meeting these dual objectives has been undertaking a unified and coordinated effort to promote business and development. In operational terms, this means close ties between foreign assistance agencies and their respective business communities; close collaboration between foreign assistance agencies and export credit agencies; and a coordinated policy for meeting foreign assistance and trade objectives.

The strategies of other donors can best be illustrated through examples. Japan is a particularly good example because so little of its assistance is formally tied to Japanese procurement (which is clearly one strategy for promoting business and development objectives). Officially, Japan's development loan agency responds to requests for assistance from developing countries. The developing country submits a list of proposed projects to the Japanese government, which is subsequently reviewed by a Japanese interagency team. The Japanese government submits a final list of approved projects to the host government. However, long before the developing country submits its project list, there is intense collaboration between Japanese government agencies, Japanese companies, and the developing country's ministries or parastatals that will receive financial support for the project. The project request list is, in essence, a by-product of this close collaboration. The promotion of Japanese business interests is not only a consequence of development assistance, but a factor which drives development assistance.

Yet another example of the close collaboration between development and commercial objectives is exemplified in the financing of World Bank infrastructure projects. World Bank officials note that representatives of many of the bilateral assistance agencies aggressively seek out information on up-coming projects, far beyond a mere review of the Monthly Operational Summary published by the Bank. Information on up-coming projects is then passed on to businesses at home, which enables companies to establish the necessary contacts with local partners and host government officials long before the procurement is officially announced by World Bank. Foreign companies are increasingly submitting "mini-proposals" as part of their expressions of interest, which helps them secure a place on the short-list for procurement. While American

firms may be technically qualified, they rarely have the necessary information at this early stage in the procurement process to submit comparable proposals. Some of the top American engineering firms are finding that they are often no longer making it to the short list stage.

Most of the bilateral donors -- with the exception of the United States -- also actively pursue opportunities to parallel finance capital projects sponsored by the World Bank and the other multilateral development institutions. Indeed, when donors meet to discuss who will finance what portion of a major World Bank capital development project, rarely is a representative of the U.S. government present at the table. In contrast, the Japanese development loan agency, OECF, seeks out opportunities to parallel finance projects, as long as it is fairly certain a Japanese company will win the contract.

Promoting commercial interests via development assistance is important to the Japanese and the major European bilaterals. However, it is also all too easy to overstate the commercial dimension of their programs. Development is also very important. Professor Margec Ensign from American University notes that Japan's commercial goals seem to have diminished in importance in recent years (although they are undoubtedly still present and will continue to exist), and the desire for international prestige has assumed greater significance.

4. The Use of Informal Tying Mechanisms

Perhaps even more important than tied aid is the use of informal mechanisms to link foreign assistance to domestic procurement. In the case of Japan, very little of its foreign assistance is formally and legally tied to domestic procurement. Nonetheless, few firms from the U.S. or the other major industrialized countries have won contracts on projects financed by Japanese development assistance. Professor Ensign's research indicates that official figures from Japan greatly overstate the amount of procurement awarded to non-Japanese firms. In 1989, Japan's Ministry of Finance reported that 62% of all development loan-funded contracts went to foreign firms; however, Ensign found that only 0.4% of such contracts were awarded to foreign firms. Often the primary contractor for a project may be a firm based in a developing country, but in almost all cases, these firms are part of a joint venture with a Japanese firm, which owns 49% of the firm. The technology- or equipment-intensive portion of the project is usually filled by the Japanese partner in the joint venture firm. Ensign concludes that the loan component of Japan's aid program is effectively, though not officially, tied.

There is little comprehensive information on the use of informal aid-tying mechanisms; however, the mechanism which is cited most consistently is donor funding of the engineering and design portion of capital projects. As stated in a report prepared by the American Consulting Engineers Council, "Engineering services are the opening wedge whereby countries establish close ties with client organizations -- ties that lead to subsequent detailed design for roads, plants, and other facilities, for the preparation of specifications for equipment, and for the procurement of that equipment from the country that provides the design" (ACEC, December 1988, p. 8). For this reason, financing the engineering and design portion of the project finance cycle can be a very effective way of ensuring that foreign assistance generates domestic procurement.

As noted above, Japan has full and open procurement on its projects ... officially. Until 1989, it tied engineering-consulting services to Japanese firms. This gave Japanese companies a significant advantage in bidding on procurement because the engineering firm draws up the specifications for the procurement and often manages the procurement. Now, the Japanese tie only a small portion of their foreign assistance. In part, because the Japanese have already gained a strong foothold in strategic sectors of the Asian market, they have less need to formally use their assistance as a tool to gain competitive advantage.

In conclusion, there are fundamental differences between the strategies of the U.S. government and the other major industrialized countries. Like the United States, each of the major donors has a range of institutions which finance various components of capital projects, including pre-feasibility and feasibility studies, architecture and engineering design, project finance, export credits, export insurance and guarantees, and investment promotion. However, unlike the United States, all of the other major donors also have an institution or a facility within an institution, which is devoted to project finance for developing countries -- a large portion of which is devoted to capital projects. Lending for capital projects is the donors' primary mechanism for linking development and trade objectives. The key development lending institutions include the following:¹

Japan	Overseas Economic Cooperation Fund (OECF)
Germany	Kreditanstalt für Wiederaufbau (KfW) Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ)
Canada	Canadian International Development Agency (CIDA) International Development Research Center (IDRC)
France	Direction des Relations Economiques Exterieures (DREE) Caisse Centrale des Cooperation Economique (CCCE)
Italy	Interministerial Committee on Development Cooperation (CICS)

Only the United States lacks a similar project finance facility devoted to promoting business and development objectives -- a factor which has important ramifications not only for the developing countries in which A.I.D. works, but also for U.S. economic competitiveness and long-term trade benefits. The chart on the following page illustrates the gap in U.S. project finance facilities, compared to those in other industrialized countries.

¹ Brief descriptions of some of these organizations are included in Annex 8, as well as a complete list of the acronyms used on the following page. Detailed descriptions of the primary development lending agencies of Japan, France, and Germany are provided in Chapter III.

PROJECT FINANCE CYCLE

U.S. and Primary Donors

Country	Pre-feasibility & Feasibility	A & E Design	Project Finance (loans)	Technical Assistance (grants)	Export Credits	Export Insurance Guarantees	Investment Promotion (finance & insurance)
U.S.	TDP	THE GAP		AID	EXIM	EXIM	OPIC
Japan	JICA	JICA	OEFC	JICA	EXIM of Japan	EXIM of Japan	EXIM of Japan OEFC
Germany	KfW GTZ	KfW GTZ	KfW DEG	GTZ	AKA	Hermes Truarbeit	DEG
Canada	CIDA IDRC	CIDA IDRC	CIDA	CIDA	EDC	EDC	
France	DREE CCCE	DREE CCCE	CCCE	CCCE	BFCE	COFACE	BFCE COFACE
Italy	CICS	CICS	MCRF	MCRF	CICS SACE		
United Kingdom	ATP		ATP ECGD	ODA	ECGD	ECGD	CDC

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The U.S. business community believes that the most logical "home" for a capital projects fund is the Agency for International Development. Because A.I.D. is the lead agency on development issues -- and the only U.S. government funding agency to have a major presence overseas -- it makes sense for a capital projects facility which aims to promote development and business objectives to be housed within A.I.D.

This is not to say that other agencies do not already play an important role in financing capital development projects. The business community praised the work of the Trade and Development Program (TDP). The engineering firms interviewed by the team noted that TDP has a good system in place to locate projects; it is able to make quick decisions on which feasibility studies to fund and on who should do the work; and it works well with the business community. TDP knows what issues are of concern to the business community and is responsive to their needs. Firms noted that one of TDP's advantages is that it is small and is not encumbered with a large bureaucracy; the program has done well because it specializes in a well-defined area.

The business community also noted the importance of the Export-Import Bank in financing capital projects. Eximbank's mandate is viewed as providing market-rate financing, primarily for equipment and to some degree for services. However, Eximbank does not have a development mandate and, therefore, cannot look at many of the projects which other OECD countries are financing. As a general rule, Eximbank cannot provide competitive concessional financing. The War Chest and the Asia fund established in collaboration with A.I.D. are perceived by the business community to be essentially reactive, rather than pro-active, entities.

Despite the benefits of these programs, the business community says they do not address all facets of the project cycle for capital projects. The perception is that there is a gap, or as one person said, a "chasm" between the work of TDP and Eximbank. What is needed to fill that gap is a project finance facility that focuses on developing countries. Currently, in the absence of any U.S. government project finance facility, some American businesses are working with their competitors or through their foreign subsidiaries to access the funds of their countries. While the U.S. business community does have access to government financing for their export and foreign investment needs, there is no facility geared to project finance *per se*, particularly for financing projects in developing countries. Moreover, there is no U.S. government agency which works extensively with multilateral banks such as the World Bank on co-financing programs.

The team also solicited the opinion of the U.S. business community with regard to the potential parameters of this facility. With respect to size, the U.S. business community believes that a fund amounting to at least \$1 billion in loans and guarantees would be necessary for A.I.D. to be considered a serious player. This would enable the fund to compete with the credit funding programs of other countries. Moreover, the business community strongly believes that the fund should provide concessional finance due to the competitive finance packages offered by the other OECD donors. Moreover, many donor countries now expect concessional financing. They note that the project finance facility should be allowed to operate in all A.I.D.-financed countries, including those that are more advanced, such as Mexico, Chile and Thailand. And while all

types of capital projects should be eligible for funding, the U.S. business community believes that projects in telecommunications, power, the environment and some forms of transportation will be the most viable and competitive. Lastly, the business community believes that the facility should finance projects sponsored by either public or private entities.

As a final note, nearly all of the businesses interviewed stressed the need for better coordination among the various agencies involved with trade and development. Their perception is that each U.S. government agency is following its own path. This hampers the United States' ability to compete effectively with the programs of the other OECD countries, where there is much greater collaboration on trade and investment issues.

F. THE A.I.D. NICHE

There is a distinct role for the Agency for International Development in the capital project cycle, a role which is neither duplicative nor competitive with mandates and operations of other U.S. government agencies. As described throughout this chapter, the U.S. government already has a number of valuable resources for financing capital projects. Nonetheless, there remains a critical gap -- a gap which works to the disadvantage of the American business community, as well as U.S. economic competitiveness. Specifically,

- None of the U.S. government institutions focus on the engineering and design phase of the project cycle, as do many of the other bilateral donors. It is during this part of the project cycle where detailed specifications for procurement are developed. Financing the engineering and design portion of the project finance cycle can be an effective way of ensuring that foreign assistance generates domestic procurement.
- None of the U.S. government institutions provide a project finance facility for capital projects in developing countries, as do the other major bilateral donors. Eximbank has recently created a "pilot" project finance facility; however, its mandate is not development-oriented. OPIC provides project finance, but generally not for major infrastructure projects.
- Lastly, none of the U.S. government institutions work extensively with the World Bank and other multilateral donors to parallel finance capital projects, as do the other major bilateral institutions.

In summary, unlike the other major donors, the United States has no institutional mechanism that can address the infrastructure needs of developing countries and promote long-term trade benefits for the United States. As noted previously, the Trade and Development Program funds pre-feasibility and feasibility studies, which clearly meet both of these objectives; however, TDP's mandate is circumscribed to the early phases of the capital project cycle, covering only 5-10 percent of the finance required for capital projects. Eximbank's mandate is to promote U.S. exports; but it has neither the mandate for development nor any experience in ensuring that a

project is developmentally sound. The Overseas Private Investment Corporation does have a developmental mandate, but its central focus is to identify and promote overseas investment opportunities for U.S. entities. Indeed, OPIC's founding legislation requires U.S. investor participation in its projects. This focus is important with regard to the proposed A.I.D. Capital Projects Fund. For various reasons, many viable and developmentally sound capital projects may not be attractive from the perspective of U.S. investors. The Capital Projects Fund intends to finance such capital projects in recognition of their potential for generating major trade benefits for the U.S. (despite a lack of U.S. investor interest). It is this emphasis on the trade leverage brought about by capital projects that distinguishes A.I.D.'s prospective program.

A.I.D. has distinct advantages in filling the gap in capital project financing. Its facility would be used only for projects that met both the recipient country's and U.S.'s development priorities and standards. It would be used only for projects that were analyzed and "scrubbed" from a development perspective and that could be shown not to subsidize an inefficient or uncompetitive U.S. exporter or provide a windfall to such an exporter. But it also would be used only if it provided substantial and clear trade benefits to the U.S.

With its worldwide network of missions and long history of planning, financing and implementing capital projects, A.I.D. can provide the institutional mechanism to link developmentally-sound capital projects with U.S. business interests. A.I.D. missions and regional offices abroad give the Agency a comparative advantage over other U.S. government agencies (and often other donors as well) in understanding the needs and the potential for success of certain kinds of projects and investments in their countries. On the downside, A.I.D. is essentially a grant agency, and its relative lack of experience in administering credit programs has important management and staffing implications for the facility, which are explored in greater detail in the latter part of this study. Within A.I.D., only the Bureau for Private Enterprise -- through the Private Sector Investment Program and the Housing Guarantee Program -- has significant experience with credit programs. The Housing Guarantee Program, for example, has authorized over \$2.5 billion in loan guaranties since its inception in 1964. (A.I.D., Office of Housing and Urban Programs, Annual Report 1990, p. 2)

Other U.S. government agencies, such as Eximbank and OPIC, do have more experience than A.I.D. as an agency in managing and administering credit programs. Because of their experience, as well as their important role in financing components of the capital project cycle, it will be critical for A.I.D. to establish close working relationships with these institutions. Indeed, as noted previously, close collaboration between government agencies is one of the factors which make other donors successful in linking developmental and business objectives. The next chapter of this study explores in greater detail how selected bilateral and multilateral donors use their credit authority to finance capital projects in developing countries.

CHAPTER III

APPROACHES TO FINANCING CAPITAL PROJECTS

As the previous chapter briefly described, the other bilateral donors and U.S. government agencies employ various strategies for promoting development and trade objectives via capital projects. However, bilateral donors and U.S. government agencies are not the only entities involved; rather a number of multilateral agencies also finance capital projects. This chapter will detail the approaches employed by the agencies most involved with capital projects: namely, the bilateral, multilateral and private sector approaches.

These approaches provide models of capital projects financing -- models that will help to define the parameters of the A.I.D. Capital Projects Fund. As will become apparent, the approaches differ greatly from each other. By understanding the central components of each approach, A.I.D. will be better able to determine the aspects of each approach that are most important in achieving A.I.D.'s own objectives. In this chapter, we will present, in what may appear overwhelming detail, the most important information regarding these organizations.¹ This presentation of facts contributes to later chapters in two ways: (1) it allows A.I.D. to evaluate each approach, and individual components of the approaches, against A.I.D.'s own criteria for capital projects financing; and (2) on the basis of this examination, it sets the stage for developing A.I.D.'s own approach to capital projects finance.

A. THE BILATERAL APPROACH

In exploring the policies and practices of the bilateral organizations most appropriate for this study -- specifically, the Caisse Centrale de Cooperation Economique (CCCE) of France, the Kreditanstalt für Wiederaufbau (KfW) of Germany, and the Overseas Economic Cooperation Fund (OECF) of Japan -- the team found their overall strategies and policies similar enough that a "bilateral approach" to financing capital projects was readily identified. This section first briefly describes the three organizations, and then examines the key elements of the bilateral approach, namely coordination among agencies and ministries, concentration on certain projects and regions, concessionality of terms, and co-financing.

¹ Unless otherwise specified, all numerical information in this chapter is derived from the various organizations' most recent annual reports, and all data cited by year refers to the fiscal year discussed in each annual report.

1. Background: CCCE, KfW and OECF

a. CCCE

The Caisse Centrale de Cooperation Economique (CCCE) was established in 1977 to extend concessional loans for development projects in the Third World, particularly in former French colonies. CCCE works in 44 countries, including 36 in Africa and the Indian Ocean, 7 in the Caribbean, and 1 in the Pacific.

CCCE serves primarily as a development bank. It derives most of its funds through the national and international capital markets -- the fact that the French government fully guarantees the CCCE makes it easier for the CCCE to do so. CCCE also receives budget allocations from the French Treasury, which it uses to extend grants to the governments of less developed countries and to provide concessional financing to eligible aid recipients.

b. KfW

Established in 1948 to assist in rebuilding Germany, KfW is, as its Annual Report states, "a bank with functions of a politico-economic character." Its central purpose is promotion of the German economy, primarily through long-term financing for infrastructure investments but also through export finance and untied financial loans to German companies. This export finance is devoted mainly to medium- and long-term loans (with a very small percentage, 0.5%, funded through guarantees) for exports of capital goods and plant to developing countries.

Since 1961, KfW has also operated a program (which it calls "Financial Cooperation with the Developing Countries") to promote the economies of developing countries; the Financial Cooperation program is a loan and grant program to support infrastructure investments. Loans comprise 60% of funding while grants total 40%. It is mainly the Financial Cooperation program which is described in this chapter. It should be noted, however, that this program is not KfW's focus. Instead, KfW concentrates primarily on its activities within Germany: funds for these programs totaled DM 20.3 billion in 1990, while funds for Financial Cooperation with the Developing Countries comprised DM 3.7 billion in the same year.

c. OECF

The OECF was founded in 1961 to promote Japan's overseas economic cooperation by providing funds for industrial development and the economic stability of developing countries. It did not, however, make loans to foreign governments until 1965. Today, such loans predominate: in 1990 the OECF extended ¥1,006,803 million in loans to foreign governments, whereas in the same period it extended only ¥7,676 million in loans and equity investments to private corporations. The OECF derives its resources from annual appropriations of the Japanese government, through borrowings from the Japanese government, and through borrowings against its own capital and reserve fund.

2. Coordination Among Agencies and Ministries

As mentioned in the previous chapter, a substantial degree of coordination among federal agencies and ministries characterizes the bilateral approach. Methods of project selection reveal the extent of this coordination. For example, both German and Japanese bilateral assistance rely upon an informal consortium of relevant ministries (such as ministries of foreign affairs, economic cooperation, trade and investment, etc.) that is responsible for planning and selecting loans or projects. KfW and OECF act primarily as implementing agencies (although KfW, after the Ministry of Economic Cooperation's initial pre-selection of projects, does produce detailed project appraisals to assist the other ministries in their final project selection).

Coordination of French bilateral aid is somewhat different. It is more evident in the final financing packages than in the selection and planning of projects. In 1990, for instance, over half of CCCE's projects -- representing 36% of its funds for that year -- were funded through collaborative arrangements with other French agencies, particularly the organization responsible for financing donor procurement (FAC, or Fond d'Aide et de Cooperation). (The linkage between CCCE and FAC is discussed in more detail in Section 4, "Terms and Types of Assistance".)

This coordination indicates donor recognition of the dual objectives that are inherent in capital projects. The involvement of a variety of ministries in planning capital projects -- from those primarily responsible for economic development and cooperation to those responsible for foreign affairs or for trade -- demonstrates the seriousness with which the bilateral agencies approach capital projects and through which they intend to achieve these dual objectives.

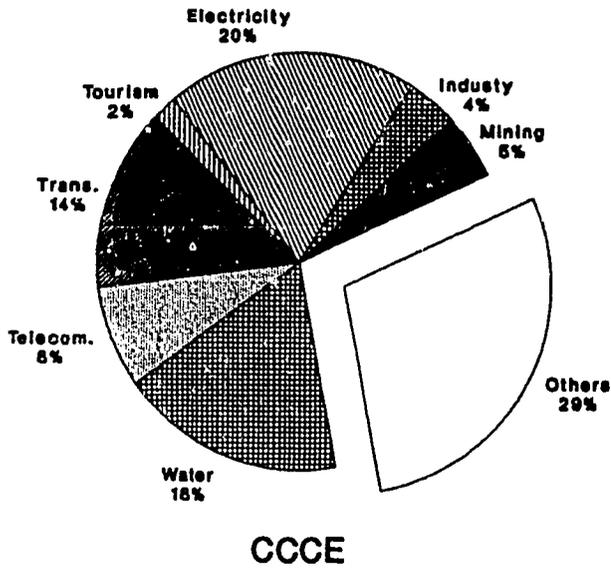
3. Concentration on Certain Types of Projects and Regions

Pursuing the twin goals of development and business promotion has resulted in a heavy concentration on capital projects by the bilateral organizations. As Chart 1 demonstrates, the bilateral approach is characterized by a preponderance of projects devoted to infrastructure development, with KfW and OECF dedicating particular attention to the normally equipment-intensive ventures of electricity, transport and mining and manufacturing. In contrast, few resources are dedicated to other traditional development focuses such as health, population and education.

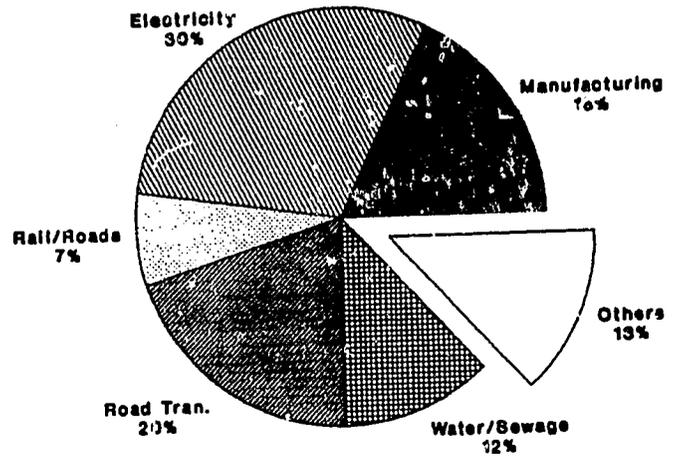
Within the scope of capital projects, the bilateral approach is further narrowed: the bilaterals work almost exclusively with foreign governments and, therefore, almost entirely on public sector capital projects. KfW, for instance, does not extend any loans to the private sectors of developing countries. OECF does have a program to support private corporations in developing countries, but the scope of this program is insubstantial, especially in comparison to its loans to foreign governments. Specifically, loans to private corporations represent only 0.7% of OECF's total lending to developing countries. CCCE operates a somewhat larger program to support private enterprises in developing countries, comprising almost 14% of its funds in 1990.

CHART 1

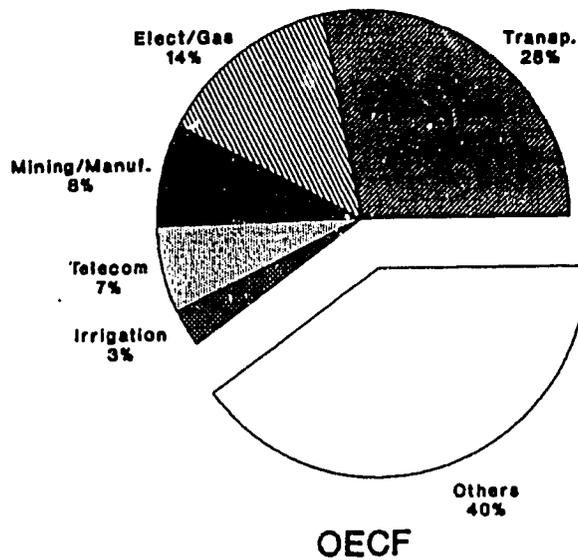
SECTORAL DISTRIBUTION OF PROJECTS (Percentage of Total 1990 Commitments)



'Others' category includes Rural Development (28%) and Urban Infrastructure (1%).



'Others' category includes Agriculture/Fishing (9%) and Health (2%).



'Others' category includes Commodity Loans (27%), Social Services (6%), Financial-intermediary (6%), and Agriculture/Forestry/Fishing (3%).

Note: Figures for CCCE include only project assistance, i.e. not structural adjustment assistance, except the sectorally-itemized proportion of such assistance.

Sources: Caisse Centrale de Cooperation Economique, Annual Report 1990, p. 37.
Kreditanstalt für Wiederaufbau, Annual Report for Year 1990, p. 63.
Overseas Economic Cooperation Fund, Annual Report 1991, p. 18.

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It should be noted that in OECF's case, loans to private sector entities are primarily for projects which are thought to generate less widespread traditional development benefits, such as mining and manufacturing. These projects account for nearly 63% of OECF funds to the private sectors of developing countries. CCCE's loans to developing countries' private sectors are less concentrated and directed more toward traditional development activities. The following tables detail CCCE's and OECF's 1990 commitments to private entities.

TABLE III-1

**1990 OECF COMMITMENTS UNDER ITS PROGRAM FOR
LOANS AND EQUITY INVESTMENTS IN CORPORATIONS**

<u>PERCENTAGE BY SECTOR</u>		<u>INDIVIDUAL COMMITMENTS</u>
<u>Sector</u>	<u>Percentage</u>	<u>Loans:</u>
Mining & Manufacturing	63%	1. Beef Cattle Breeding Project (Northern Mariana)
Agriculture, Forestry & Fisheries	25%	2. Sinkiang-Uigur Region Hops Cultivation (China)
Others	<u>12%</u>	3. Afforestation Project around Arauco Province (Chile)
TOTAL	100%	
		<u>Equity Investments:</u>
		1. Bangladesh KAFCO Fertilizer Project
		2. 3rd and 4th contributions to the Buffer Stock Account under the Int'l Natural Rubber Agreement (1989)--2 commitments
		3. Additional Equity Inv. in Amazon Aluminum Project
		TOTAL COMMITMENTS: 7

Source: Overseas Economic Cooperation Fund, Annual Report 1991, p. 79.

TABLE III-2**1990 CCCE COMMITMENTS TO THE PRIVATE SECTOR
(Millions of French Francs)**

SECTOR	NUMBER OF PROJECTS	WINDOW ¹			TOTAL	PERCENTAGE
		CON-CESS-IONAL	VERY CONC.	HARD		
Rural Dev't & Agro-Industry	30	232.15	39.6	101.93	373.68	37%
Industry	27	113.61	24.6	34.74	172.95	17%
Transport	9	67.20	177.0	47.1	291.30	29%
Tourism	5	45.19	0.0	25.0	70.19	7%
Various	6	19.15	77.15	0.0	96.30	10%
TOTAL	77	477.30	298.35	208.77	1004.42	100%

¹ Concessional = First Loan Window under Ordinary Conditions; Very Concessional = First Loan Window under Special Conditions; Hard = Second Loan Window. These windows are explained in detail in Section 4, "Terms and Types of Assistance", below.

Source: Caisse Centrale de Cooperation Economique. Annual Report 1990, p. 43.

Tables III-1 and III-2 are interesting for several reasons. First, they illustrate the extremely small number of private sector capital projects toward which other bilateral donors devote resources. As detailed in Table III-1, in 1990 OECF completed only 7 capital projects with private enterprises, and none of these projects were traditional capital projects. In the same year, CCCE completed 77 projects with the participation of private enterprises, but only 9 of these were traditional capital projects.

Second, Table III-2 describes the generally concessional terms under which lending to the private sector occurs: less than 21% of CCCE's lending to private enterprises carried market terms. Of the proportion of funds dedicated to traditional capital projects (i.e. transport), only 16% were offered on market terms.

Finally, Tables III-1 and III-2 re-emphasize that the amount of lending directed toward private sector capital development projects is tiny. As mentioned earlier, it represents only 0.7% of OECF's 1990 funding. As also noted above, such lending comprises nearly 14% of CCCE's operations. However, this 14% includes all funding to the private sector, not just loans for capital projects. If we include only the portion of funds dedicated to traditional capital projects, the proportion of resources loaned to the private sector for capital projects development falls to 4%.

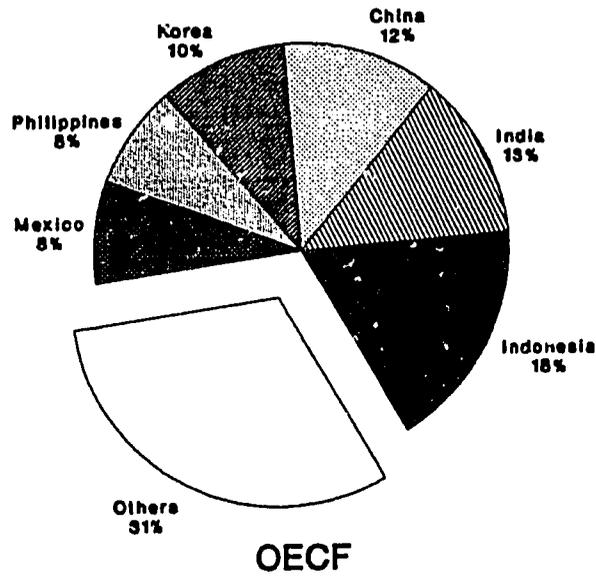
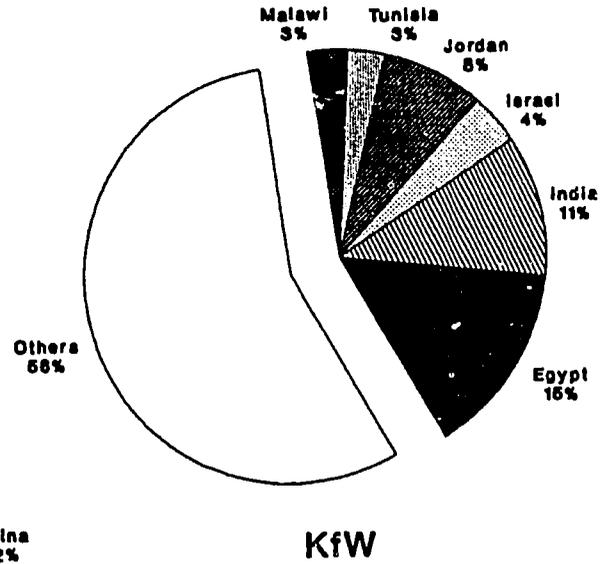
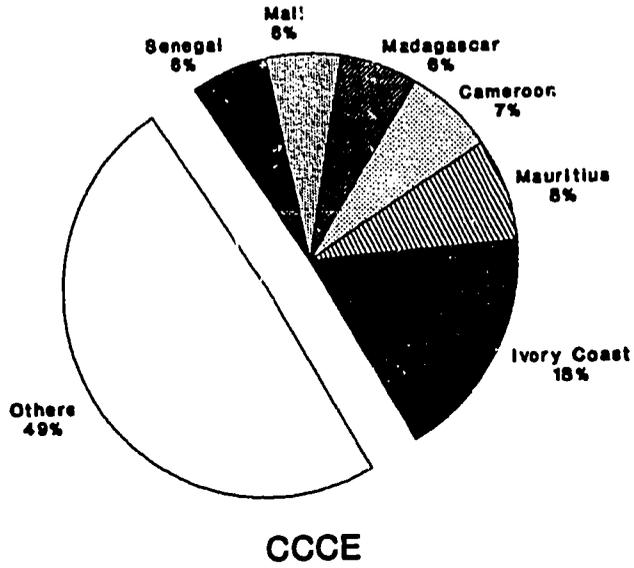
In addition to being highly public-sector oriented, the bilateral approach generally is also highly targeted in its geographical focus, with projects predominantly aimed toward developing countries of special strategic or historic interest to the donor. As might be expected, for instance, CCCE concentrates on projects in former French colonies, particularly in francophone Africa. In fact, as noted earlier, of the 44 countries in which CCCE is authorized to operate, 36 are in Africa and the Indian Ocean, 7 in the Caribbean, and 1 in the Pacific. Similarly, OECF focuses on Asia, which receives almost 73% of all loans to governments and nearly 46% of all loans and investment in private corporations. KfW's commitments are, by comparison, less targeted, with Africa and Asia receiving 50% and 39%, respectively.

Besides being regionally focused, funds are also country focused: within these regions, bilateral assistance is generally aimed at a handful of countries. For example, in 1990 five Asian countries and one Latin American country received 69% of OECF's aid (to foreign governments); CCCE's and KfW's assistance was less concentrated: six African countries received 51% of CCCE's total aid, while KfW's top six recipients received 44% of its aid. Chart 2 (next page) details the proportion of aid going to these major recipients.

The average size of all bilateral loans to capital projects is less consistent. Table III-3 describes this dimension of the bilateral approach.

CHART 2

MAJOR RECIPIENTS OF ASSISTANCE (Percentage of Total 1990 Commitments)



Sources: CCCE, Annual Report 1990, p. 33.
 KfW, Annual Report for Year 1990, p. 59.
 OECF, Annual Report 1991, pp. 88-110.

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TABLE III-3

1990 COMMITMENTS OF BILATERAL DONORS

<u>Organization</u>	<u>1990 Total Funding</u>	<u>Number of Projects</u>	<u>Average Size of Loans</u>
CCCE	\$1,498 million	141	\$ 11 million
KfW	\$2,469 million	228	\$ 11 million
OECE	\$ 7 billion	107	\$ 65 million

Sources: Caisse Centrale de Cooperation Economique, Annual Report 1990
Kreditanstalt für Wiederaufbau, Annual Report for the Year 1990
Overseas Economic Cooperation Fund, Annual Report 1991

4. Terms and Types of Assistance

A high degree of concessionality characterizes the bilateral approach to financing capital projects. Only one of the bilaterals studied -- CCCE -- extends loans at market rates, but these loans comprise a very small percentage (6%) of CCCE's total project assistance. The other donors, by contrast, do not have "hard loan windows". Two of the organizations -- CCCE and KfW -- offer mixed credit financing. Because the methodology for offering concessional terms varies widely by donor, this section will briefly describe individual donor practices.

a. CCCE

CCCE's system for extending loans to foreign governments and private enterprises is fairly straight-forward. CCCE maintains two loan "windows", the first and the second, which offer loans under three conditions, as delineated below.

First Window Loans (offered only to countries whose 1985 GNP/capita was below US\$280)

Loans granted on ordinary conditions: These loans -- which receive interest subsidies from the French Treasury -- were extended at an average interest rate of 4.95%. The average maturity (weighted according to amounts) was 17.6 years and the average grace period was 7.6 years.

Loans granted on special conditions: Financed by long-term advances from the Fonds de développement économique et social, these loans are offered on a highly concessional basis -- maturities of 30 years (with a 10 year grace period) and interest rates of 1.5% during the grace period and 2% for subsequent years. Toward the end of 1990, a new form of loan was developed (for two projects); the terms of this type of loan are: redemption over 15 years, with a 5 year grace period, and interest of 1.5% during the grace period and 2% during the remaining 10 years.

Second Window Loans (offered to middle income countries)

Loans extended under this window are variable interest rate loans which are indexed to the previous quarter's average monthly rate of return on secured loans. For 1990, following market trends, rates ranged from a low of 9.8% to a high of 11.5%. The average maturity was 11.53 years, and the average grace period was 4.36 years.

CCCE also uses grants which are extended only to governments. Governments may pass the grant on to public enterprises if they are the ultimate recipients, but governments usually do so in the form of a loan. In the case of such a pass-through, CCCE develops an agreement with the recipient government regarding the terms on which the grant is to be passed on and monitors the funds reimbursed to the government by the recipient enterprise. Of CCCE's project assistance to developing countries, loans total 58% and grants comprise the remaining 42%. CCCE does not provide specific information on whether it uses grants and loans in the same transactions, but it does note that funding by way of grants usually is limited to non-physical investments (such as technical assistance and studies) involved in certain projects.

As mentioned earlier, CCCE also extends a substantial proportion (36%) of its funds in coordination with other French agencies, particularly FAC. Under the auspices of the Ministry of Cooperation, FAC makes grants to aid recipients to finance the supply portion of assistance. The Ministry of Cooperation sets the procurement rules for FAC supply contracts (the primary rule is that the supplier must be a French company); the recipient government completes the procurement within these guidelines. In 1986 (the latest year for which information is available), FAC devoted over 30% of its total funds (which equalled 1,033.7 million French francs) to capital projects. (Development Aid, p. 387) The two categories of capital projects served were: infrastructure projects (22.4%) and industry and mining projects (8.2%). The extension of mixed credits, such as those offered in conjunction with CCCE, serves to further decrease the cost of a CCCE loan to the developing countries' governments, but it is not possible to enumerate this increased concessionality.

b. KfW

KfW's loan terms are similar to those offered under CCCE's First Window loans granted on special conditions. Specifically, KfW makes loans at 2% with maturities between 30 and 50 years. (Interview with Christoff Sigrist)

As does CCCE, KfW extends a significant proportion of its funds as mixed credits. During 1990, KfW extended 1.3 billion DM in mixed finance. Of this, DM 0.7 billion were Financial Cooperation funds (i.e. funds granted to KfW by the federal government), representing 19% of such funds, and DM 0.6 billion were KfW funds (i.e. those KfW raised in national or international capital markets). These commitments financed 16 infrastructure projects -- primarily in electricity and telecommunications -- concentrated in Asia. The exact mix of grant and loan per transaction is not available.

To finance German exports to developing countries (whether in conjunction with Financial Cooperation funds or alone), KfW may use only the funds that it raises in national and international capital markets. As just mentioned, in 1990, KfW used DM 0.6 billion to conduct mixed credit financing. In extending officially-supported export finance to developing countries, KfW follows the guidelines listed below:

- Hermes (a private German insurance corporation which leads the consortium that manages the insurance business for the government) must insure or guarantee these activities. The minimum repayment period for such loans is four years.
- KfW limits the amounts it will finance with its export funds. These maximum amounts are determined as follows:
 - for contracts valued up to DM 50 million: actual value;
 - for contracts valued between DM 50 million and DM 100 million: DM 50 million contract value
 - for contracts valued over 100 million: 50% of the actual value up to a maximum contract value of DM 170 million.
- The interest rate is a fixed rate, decided usually at the signing of the loan agreement. This rate is equal to or above the Commercial Interest Reference Rate for Deutschemark-denominated credits, in compliance with OECD Arrangement guidelines.
- KfW also charges a commitment fee of 0.375 percent per year, and in some cases, may charge a lump-sum handling fee.

In 1990, KfW devoted close to 52% of its funds for export promotion to loans for developing countries. KfW's total loans for export promotion in 1990 were DM 7,225.4 billion.

As mentioned earlier, KfW extends a very small percentage (0.5%) of its funds through guarantees. As also noted above, however, these guarantees are available only through KfW's program for promotion of German exports. KfW does not state what percentage of its guarantee funds is directed toward developing countries.

c. OECF

OECF's terms of assistance for foreign governments are similar to KfW's and CCCE's (under its First Loan Window with special conditions). Specifically, for loans to foreign governments, the average interest rate charged was 2.61%, while the average loan maturity was 28 years, with an average grace period of 9 years and 2 months.

Loans to private corporations were on slightly harder terms: the average interest rate was 4.62% with an average repayment period of 16 years and 4 months and an average grace period of 10 years and 1 month.

5. Co-financing

All of the bilaterals participate in co-financing ventures either with multilateral or other bilateral agencies or with other agencies of their own governments. CCCE, for instance, co-funded 14 projects with multilateral and other bilateral donors, primarily the World Bank and the European Investment Bank.

In 1990, OECF participated in a similar number of co-financings with multilateral and bilateral agencies. Specifically, it committed 17 loans (worth ¥148 billion) under co-financing with other donor organizations. This amount equals 14.7% of OECF loan commitments to foreign governments in 1990. OECF's co-financing partners include multilateral organizations such as the World Bank, African Development Bank, Asian Development Bank, Interamerican Development Bank, and the African Development Fund, and, in a few cases, bilateral agencies from Canada, Switzerland, the United Kingdom and the United States.

KfW does not provide information on co-financing arrangements, but other sources (i.e. regional development bank annual reports) indicate that it participates in at least a few co-financings.

* * *

Co-financing may be the single area where the bilaterals diverge slightly in their approach to financing capital projects. In other aspects, their approach is largely uniform. The most striking aspects of this approach are: extensive intra-agency coordination; a predominant focus on capital projects; minimal involvement with private sector capital projects; substantial targeting of resources toward certain regions and countries; a virtual absence of market rates of financing; and a considerable degree of participation in co-financing. As the next sections will demonstrate, this approach differs greatly from that of other organizations.

B. THE MULTILATERAL APPROACH

In contrast to the bilateral approach, the multilateral approach is characterized by breadth of assistance, not only in countries of assistance, but also in types of projects funded. Also distinguishing the multilateral from the bilateral approach is the former's use of market rather than concessional terms. However, like the bilaterals, the multilaterals focus on public sector projects. These key characteristics will be discussed below with reference to the World Bank, the African Development Bank (AfDB), the Asian Development Bank (ADB) and the Interamerican Development Bank (IDB).

1. Countries of Assistance

The comprehensive nature of multilateral institutions results in a wide array of countries being assisted. The World Bank is mandated to deal with all eligible countries throughout the world. Their operations are spread throughout Africa, Asia, Latin America and the Caribbean, as well as Europe, the Middle East and North Africa and, through its affiliate organization, the International Development Association (IDA), specifically targets the least developed countries. The regional development banks (AfDB, ADB and IDB) are limited in their lending and assistance to their particular region of focus, but their operations means that the world is covered by a second net of organizations which supplement the resources of the World Bank.

2. Types of Projects

The multilaterals generally participate primarily in public sector-oriented projects. In fact, only the ADB conducts any activities with the private sectors of developing countries. ADB's private sector activities include direct equity investments and loans to private enterprises (without government guarantee) and indirect credit lines to local financial institutions. In 1990, the ADB's capital projects lending to private investors totaled almost \$58 million and included three projects (two electricity, gas and steam projects, and one transport and storage project). Cumulative ADB lending for private sector capital projects is only slightly higher: the cumulative total includes the above projects plus a \$24 million telecommunications project and a \$29 million electricity, gas and steam project.

The sectoral distribution of projects which the multilaterals typically fund varies from organization to organization, as might be expected given the differing needs of the countries that each serves. For example, the World Bank conducts projects in thirteen different areas, five of which involve capital projects. These five sectors, which in 1991 accounted for 33% of lending, include energy, industry, telecommunications, transportation, and water supply and sewage. The following table delineates the World Bank's distribution of lending by sector and highlights the amount and percentage of lending dedicated to capital projects.

TABLE III-4
WORLD BANK¹ PROJECTS BY SECTOR
(Fiscal Year 1991)

<u>Sector</u>	<u>Amount</u> <u>(Millions of US\$)</u>	<u>Percentage of Funding</u>
Agriculture and Rural Development	3,707.3	16
Development Finance Companies	1,851.8	8
Education	2,251.7	10
Energy		
Oil, Gas & Coal	1,730.2	8
Power	1,344.0	6
Industry	1,983.0	9
Non-Project (Structural Adjustment)	2,821.9	12
Population, Health and Nutrition	1,567.6	7
Public-Sector Management	641.7	3
Small-Scale Enterprises	211.0	1
Technical Assistance	366.7	2
Telecommunications	339.8	2
Transportation	1,388.0	6
Urban Development	1,255.4	5
Water Supply & Sewerage	1,225.4	5
SUBTOTAL (Capital Projects)	8,010.4	36
TOTAL	22,685.5	100

¹ Includes IBRD and IDA

Source: The World Bank, Annual Report 1991, pp. 163-168.

As can be seen in the table below, all of the regional development banks also devote significant proportions of their portfolios toward capital projects. Like the World Bank's lending, the regional development banks' lending for capital projects is concentrated in a few sectors -- namely, energy, industry, transport, telecommunications, and water supply.

TABLE III-5
REGIONAL DEVELOPMENT BANKS'
SECTORAL DISTRIBUTION OF CAPITAL PROJECTS
(Percentage of 1990 Commitments)

<u>Sector</u>	<u>AfDB</u>	<u>ADB</u>	<u>IDB</u>
Energy	17	26	17
Industry ¹	29		7
Telecommunications	7	4	
Transport:	7		17
--Roads & Road Trans.		13	
--Ports		3	
Water Supply ²	9	3	4
TOTAL	69	49	45

¹ Figure for IDB includes mining.

² Figure for ADB includes urban development.

Sources: African Development Bank, Annual Report 1990, p. 59.
Asian Development Bank, Annual Report 1990, p. 40.
Inter-American Development Bank, Annual Report 1990, p. 13.

3. Size of Projects

The multilaterals' average loan size is roughly the same (with the exception of the AfDB): \$100 million for the World Bank, \$70 million for the ADB, \$88 million for the IDB, and only \$21 million for the AfDB. However, for capital projects the AfDB's average loan size was \$74.7 million. (The AfDB is the only organization for which capital projects loan size is available.)

4. Terms and Types of Assistance

The multilaterals normally offer only one type of assistance -- loans. All of the multilaterals extend loans at market rates (or close to market rates) and two (the IDB and World Bank) also offer concessional rates for the poorest countries in which they operate. The exact terms of assistance, however, vary somewhat. For instance, in July 1990, the AfDB changed from a fixed-at-commitment lending rate policy to a pool-based variable lending rate system, under which the lending rate is determined by adding a spread to the cost of a qualified pool of borrowings. The rate is reviewed and adjusted every six months. The rates fixed on July 1, 1990 and January 1, 1991 were 7.71% and 7.93%, respectively.

The ADB and the IDB also operate under pool-based variable lending rate systems. From January to June 1990, the ADB's lending rate was 6.33%, while from July to December 1990, its rate was 6.36%. Starting January 1, 1991, its lending rate increased to 6.5%.

For the IDB, the lending rate for the foreign exchange portion of ordinary loans was 8% for the period January to June 1990, and 8.05% for the period July to December 1990, with maturities of between ten and thirty years, including grace periods. The local currency portions of loans are repayable over the same period, but the interest rate is lower. For loans extended under the Fund for Special Operations (the IDB's concessional window), the interest rate was between 1 and 4 percent, depending on the type of project and the recipient country. Grace periods for these loans ranged from 5 to 10 years. For the least developed member countries, the interest rate was 1 percent for the first 10 years and 2 percent thereafter, with maturities ranging from 30 to 40 years.

The World Bank's lending rate is 8.825%, with a fee of 0.25% charged at loan commitment and a charge of 0.75% charged on the undisbursed amount of the loan. The lending rate is calculated in the same manner as the rates for the regional development banks (i.e. the cost of borrowing plus a spread to cover administrative and other costs). World Bank loans generally have a grace period of 5 years and maturities of 15 to 20 years. The World Bank also extends concessional loans to very poor countries (defined as those with annual GNP/capita below approximately \$600) through IDA. These credits have 10 year grace periods, maturities of 5 to 40 years, and no interest.

5. Co-financing

All of the multilaterals examined in this section participate in co-financing ventures. The World Bank most vigorously encourages co-financing, with approximately 55 percent of its projects and programs (which totalled 229) receiving some form of co-financing. For 1991, this co-financing totalled \$8,985 million. In 1991, co-financing took place almost equally in each of the World Bank's four regions (Africa, Asia, Latin America and the Caribbean, and Europe, Middle East and North Africa), with each accounting for approximately one quarter of the co-financing volume.

The largest sources of co-financing are bilateral agencies and other multilateral organizations, which together accounted for \$7,057 million in 1990. Of the bilateral and multilateral agencies, co-financing from Japan (through OECF and the Export-Import Bank of Japan) accounted for the largest share of the World Bank's 1990 co-financing arrangements, following previous years' trends. For 1990, OECF and ExIm of Japan contributed \$1,405 million -- representing nearly 20% of official bilateral and multilateral co-financing -- for twelve World Bank projects. In addition, export credit agencies contributed \$1.49 billion to World Bank co-financing, while private co-financing, remaining small, totaled \$434 million.

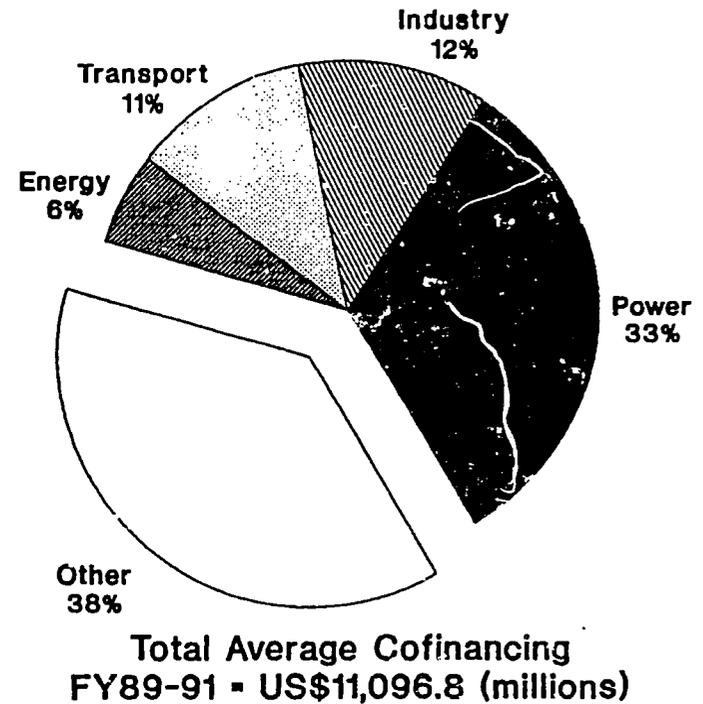
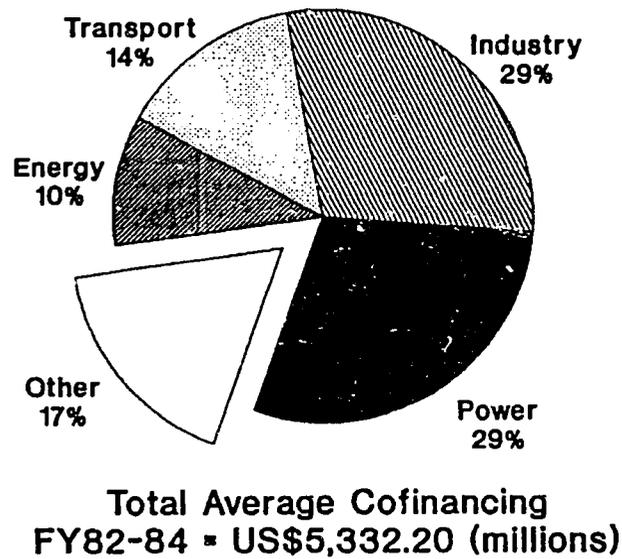
The remaining \$1,928 of World Bank co-financing was provided by export credit agencies (which co-funded 7 projects worth \$1,494.5 million) and private sources (which contributed \$433.5 million towards 7 projects).

The sectoral distribution of World Bank co-financed projects remains heavily oriented towards capital projects, although less so than in the early 1980's. Chart 3, on the next page, describes this phenomenon.

Among the regional development banks, IDB co-financed the largest amount (in dollar terms) of projects. Specifically, in 1990, IDB received co-financing for 10 projects, whose total worth is \$6,661.6 million. Of these ten projects, five were capital projects, worth a total of \$6,212.9 million. IDB co-financiers for 1990 include the World Bank, the Special Fund of the Organization of Petroleum Exporting Countries, OECF, KfW, GTZ (the German technical assistance agency), the Andean Development Corporation, and the Government of the Netherlands. In 1991, IDB expects to co-finance at least five projects, worth a minimum of \$700 million.

ADB arranged co-financing for 29 of its projects in 1990. For these projects, co-financiers contributed \$1,257 million, while ADB devoted \$1,537 million. Of the non-ADB portion, official sources contributed 76% (or \$957 million) in 24 projects, with multilaterals dedicating \$422 million and bilateral extending \$535 million. Commercial sources accounted for the remaining 24% (\$302 million) and participated in eight projects. The names of the principal co-financing agencies are not available.

CHART 3 TRENDS IN WORLD BANK COFINANCING (BY SECTOR)



Note: 'Other' includes communications, education, population, technical assistance, urbanization, water supply and sewerage, agriculture and non-sector specific projects.

Source: The World Bank. "Cofinancing", Sept. 1991, p. 14.

with

Finally, in 1990, AfDB received co-financing for 19 projects worth a total of \$2,636 million. Co-financiers for these projects include a variety of other multilateral agencies and three foreign governments (France, Japan and the United States). The names of the bilateral agencies which contributed to AfDB co-financed projects are not available.

* * *

Thus, while ADB's and AfDB's involvement in co-financing capital projects is not available, it is apparent that large percentages of both the World Bank's and IDB's co-financing are devoted to capital projects. In fact, as demonstrated above, the multilaterals generally maintain a consistent approach to project finance -- and capital project finance. The key characteristics of this approach include: involvement in a wide variety of countries; an almost total focus on public sector projects; a substantial, though not exclusive, concentration on capital projects; predominantly market rates of lending; and significant use of co-financing. This approach differs greatly from not only the bilateral strategy, but also from the private sector approach, discussed next.

C. THE PRIVATE SECTOR APPROACH

In evaluating the private sector approach to financing capital projects, the team examined three organizations: the International Finance Corporation (IFC), the Interamerican Investment Corporation (IIC) and the Overseas Private Investment Corporation (OPIC). This section briefly outlines each organization's background and then details the primary characteristics of their operations. The discussion centers on the IFC and OPIC since, as mentioned below, the IIC is a very new organization.

1. Background

Part of the World Bank Group, the IFC was established in 1954 with 31 member countries and \$100 million in capital. Since 1954, the IFC has made over \$9 billion in investments in over 1000 companies in 93 countries. In 1991, the IFC approved investments of close to \$1.5 billion in 152 private entities. The IFC is now the largest source of direct investment in the private sectors of developing countries.

Founded in 1989 and affiliated with the IDB, the IIC is modeled as an IFC for Latin America and the Caribbean. In 1990, its first year of operation, it made 19 investments with a value of \$66 million.

The IFC and IIC are both development and financial institutions. Established to provide alternatives to traditional methods (like those used by other multilateral agencies) for financing development projects, the main role of each organization is to make investments in private sector

companies in developing countries. However, although their focus is on the private sector, general development is their projects' underlying criteria and goal. From the organizations' perspectives, funding viable private sector projects and companies is, simply put, good development.

Like the IFC and IIC, OPIC has a development focus and seeks to encourage private sector involvement in developing countries. However, as a U.S. government, rather than multilateral, agency, its mandate is to promote developing countries' economic and social growth by facilitating private U.S. investment in new or expanding enterprises in those nations. OPIC assists U.S. investors through three programs: project finance; insurance; and investor services. This discussion will focus primarily on OPIC's project finance program since the other programs hold less relevance for capital projects financing.

2. Roles of IFC, IIC and OPIC

a. The IFC and IIC

As important as their direct investments are the IFC's and IIC's roles in generating other sources of project finance. One of their main goals and roles is to act as a catalyst for generating other sources of finance. Never the sole investor, the IFC always works with other private sources of funds in order to share each project's commercial risk. The IFC achieves its role as catalyst for project finance through project partners and through syndication.

The IFC generally will not take more than a 25% participation in any project; the other 75% of finance must come from other sources -- IFC project partners. The IFC's record demonstrates its success as a catalyst for private sector funding. Over its history, the IFC has been able to generate five dollars for every dollar of its own investment. In 1991, the IFC's own exposure was \$1.5 billion -- but total project costs were \$10.5 billion. Project partners, thus, absorbed the difference between these amounts.

In a financing arrangement, the IFC acts much like a traditional investment bank, i.e. it not only provides funding but also arranges other sources of finance. For most projects, the other sources of finance include local equity investors, international equity investors, international banks and, potentially, local financial institutions. A typical IFC arrangement might be: 20% from a local investor, 15% from a foreign equity investor, 5% from an IFC equity contribution, 20% from an IFC loan, 30% from an equipment supplier, and the remaining portion from either external financing or domestic sources. Under IFC guidelines, all of these participants must share in the project risk.

In 1991, the IFC was able to raise \$1.3 billion through syndications -- almost as much as its direct investment for its own account. To raise these funds, the IFC sells participations in its loans through syndication funds, which are mainly sold to international financial institutions, especially international banks. Even now, when international banks are reluctant to invest directly in developing countries, they are willing to participate through IFC syndications. Over time, the IFC has worked with 272 financial institutions on over \$3.7 billion in financing.

In an IFC syndicated loan, the IFC is the lender of record, which makes it easier for banks to book the loan and comply with domestic banking regulations on international lending. Moreover, IFC's track record and affiliations lends confidence to bankers: an IFC loan, as opposed to many private bank loans, has never been part of a country's general loan rescheduling; the IFC has never had a syndicated loan default; and its status as a member of the World Bank Group accords the IFC a special status with developing countries, inducing them to pay back the IFC before other lenders. For these reasons, even though banks incur risk when they participate in IFC syndications, the IFC umbrella provides them some degree of security and protection.

b. OPIC

OPIC also serves as a catalyst for private investment in developing countries, but its focus in doing so differs somewhat from the IFC or IIC. In particular, a major goal of OPIC's project finance program is to provide funding for the potential overseas projects of small- and medium-sized U.S. businesses. Such businesses often find it difficult to obtain U.S. (or developing country) private, long-term dollar funding on reasonable terms. In order to ensure that it generates funds for such overseas investment, OPIC limits its participation to no more than 50% of total project cost for new ventures and 75% of the total project cost for expansions. It also expects the U.S. investor to assume a significant share of project risk, often through purchasing 25% or more of the equity.

Because part of OPIC's dual mandate is to provide support to U.S. businesses, OPIC is also required to examine its activities' potential effects on balance of payment and employment in the U.S. economy as well as the host country. Therefore, OPIC analyzes such factors as prospective U.S. procurement, net financial flows and net project exports to the U.S.

Finally, like the IFC's, OPIC's financing often involves at least one other lender, and in the case of large projects, several other institutions.

3. Funding

The IFC and IIC are funded from both equity and borrowings. Total equity (i.e. member countries' paid in equity contributions plus retained earnings) for the IFC is \$2.1 billion (including \$1.1 billion paid in capital and \$1 billion retained earnings). Against this equity, the IFC had borrowed an additional \$4.5 billion as of 1991, resulting in total assets of \$6.1 billion. Total outstanding investments are \$4.2 billion. This means that the IFC has leveraged its paid

in capital of \$1.1 billion into total assets of 5.5 times its paid-in capital and into total loans of 3.8 times its paid-in capital. Moreover, in 1991, the IFC increased its paid-in capital by \$1 billion, allowing it to greatly expand its future investments.

The IIC's initial paid in capital is \$200 million. It cannot borrow more than its paid in capital, meaning that it can leverage its capital at a 2 to 1 ratio.

As a self-sustaining U.S. government agency, OPIC did not require appropriations of funds prior to 1992. However, with the advent of credit reform, OPIC must now seek appropriations. For fiscal year 1993, its appropriation will be \$20.4 million (U.S. Government, The Budget for FY 93, Appendix One, p. 239). The budget also sets ceilings on loans and loan guarantees. For FY 93, for instance, the ceiling on direct loans is \$30 million, while that for guarantees is \$500 million. In recent years, program utilization for both loans and guarantees has been 100%.

4. Countries of Assistance

With 142 members, the IFC can lend in virtually every country in the world. By 1991, the IFC had made investments in 96 of the 142 countries and is attempting to lend in all its member countries. Generally, the IFC achieves a good balance of lending among continents, although recently lending to Eastern Europe and Latin America has received emphasis. Moreover, while the IFC is perceived as a lender for the advanced developing countries, in fact over 54% of investments and 53% of the total dollar amount of investments goes to countries with a per capita income less than \$830.

However, there is also some concentration of lending in particular countries. The IFC's largest exposure lies with Brazil, which accounts for approximately 10% of the IFC's lending (by dollar). The seven largest borrowers (Argentina, Brazil, Chile, India, Mexico, Turkey, and Yugoslavia) account for 48% the total value of investments.

The IIC, as implied by its name, limits its lending to Latin America and the Caribbean.

OPIC is authorized to work in 118 developing countries. Within these countries, in 1990 OPIC focused attention primarily in Latin America and the Caribbean, followed by the Near East and Asia, and then Europe. Table III-6 describes OPIC's 1990 projects by region.

TABLE III-6

**OPIC'S 1990 PROJECTS
(By Region)**

<u>Region</u>	<u>Percentage</u>
Central/Eastern Europe & Northern Ireland	21
Latin America & Caribbean	40
Near East & Asia	28
Africa	10
Worldwide ¹	1
TOTAL	100

¹Refers to OPIC's Environmental Investment Fund, which provides capital for projects in environmental business sectors (such as sustainable agriculture, forest management, ecotourism, alternative energy, and pollution control). Funds from the Environmental Investment Fund may be accessed for projects in any OPIC-eligible country.

Source: Overseas Private Investment Corporation, 1990 Report, p. 13.

Within these 118 countries, OPIC particularly encourages projects in the poorer developing countries. Following this philosophy, in 1990, OPIC invested 48% of its portfolio in low income countries, versus 49% in middle income and 3% in higher income countries. (Low income countries are defined as those with income per capita of \$984/year or below, middle income as \$985/year to \$4,268/year, and higher income as \$4269/year and above.)

5. Types of Projects

a. IFC and IIC

As the table below indicates, the IFC directs its lending to a wide variety of private sector projects -- but not often towards traditional capital projects. Instead, as might be expected from

the IFC's emphasis on building domestic financial sectors, the largest loan category is financial services. This is followed by chemicals, general manufacturing and energy. The historical breakdown by sector is very similar, although the service sectors (such as financial services and tourism) have gained increasing prominence in recent years.

TABLE III-7
IFC INVESTMENT APPROVALS IN FY 91
(By Sector)

<u>Sector</u>	<u>Percentage</u>
Cement and Construction	6
Chemicals, Petro-Chemicals	16
Energy	11
Financial Services	22
Food and Agri-Business	5
General Manufacturing	13
Mining and Metal	9
Textiles	7
Timber and Lumber	3
Tourism	8
TOTAL	100

Source: International Finance Corporation, 1991 Annual Report, p. 15.

Within these sectors, typical IFC loans include a cement factory in India, a natural gas project in Bolivia, a tourist hotel in Indonesia and an equity investment in a Ghanaian bank. While not explicitly stated by the IFC or the IIC, both organizations incline towards investments which involve an export-related activity, such as tourist projects, some mining projects and certain manufacturing projects. The reason for this tendency is financial security: projects which earn foreign exchange (i.e. export-related projects) insulate investors from potentially volatile domestic macro- and micro-economic policies. This is the reason that, even in a country that generally is not a good investment risk, the IFC may find financially sound projects in which it is willing to invest.

The above generalities notwithstanding, in 1991, the IFC and IIC made six traditional capital projects loans. As detailed in Table III-8, three of these were in telecommunications, two in power and one for a port. All the investments were made in conjunction with private companies. Furthermore, in the past, the IFC has made at least six other loans for private power and telecommunications projects, with a total value of approximately \$370 million.

TABLE III-8
IFC AND IIC
1991 INVESTMENTS IN CAPITAL PROJECTS
(Millions of Dollars)

<u>Country</u>	<u>Type of Project</u>	<u>IFC</u>	<u>IIC</u>	<u>Syndications</u>	<u>Project Cost</u>
Mexico	Cellular Telephones	17		48	69
Chile	Hydro-electric Plant	20		17	82
	Port	10		12	48
India	Thermal Power Plant	50		18	653
Zaire	Cellular Telephones	6			20
Argentina	Satellite Telecommunications		4	30	40
TOTALS		103	4	125	912

Source: International Finance Corporation, 1991 Annual Report, pp. 33, 43, 58-9.
Interamerican Investment Corporation, 1990 Report, p. 13.

Although a small part of IFC and IIC lending, these projects illustrate that some private sector capital projects are being financed. Moreover, these private sector infrastructure projects are being financed with payback generated by domestic revenue from user fees. (In some cases, though, national governments still provide currency and performance guarantees.) Equally importantly, these projects illustrate that some funding is available from international private sector banks for developing country capital projects; the syndications that the IFC and IIC arrange contribute more to the investments than do the IFC or IIC themselves. However, it should be noted that none of these projects takes place in countries that A.I.D. currently emphasizes.

b. OPIC

Like the IFC and IIC, OPIC rarely participates in capital projects. In fact, as stated in OPIC's Investment Finance Handbook, in order to prevent duplication of activities with A.I.D., the World Bank or similar organizations, it is an OPIC policy not to participate in infrastructure projects. As a result, while it funded or insured 40 "non-traditional" capital projects, in 1990 OPIC directed none of its assistance to traditional capital projects. As delineated in Table III-9, these non-traditional capital projects were in manufacturing, minerals and energy, and tourism.

TABLE III-9

**1990 OPIC INVESTMENTS
(By Sector)**

<u>Sector</u>	<u>Number of Projects</u>	<u>Percentage</u>
Agribusiness	18	14
Banking and Finance	37	29
Manufacturing	29	23
Minerals and Energy	4	3
Services	28	22
Tourism	11	9
TOTALS	127	100

Source: Overseas Private Investment Corporation, 1990 Report, p. 13.

6. Number and Size of Projects

Since its inception, the IFC has made over \$9 billion in investments in over 1000 companies. In 1991, the IFC approved 152 projects worth \$1.5 billion in investments. Of the \$1.5 billion, \$1.1 billion was in loans and \$400 million was in equity. The IFC portfolio is expected to grow at between 10% and 15% per year during the next decade.

As already mentioned, 1990 was the IIC's first year of operation, during which it made 19 loans for a total of \$66 million.

The average size of an IFC investment is \$40 million and of an IIC investment is \$3.5 million. However, most IFC investments range from \$10 to \$30 million. The largest IFC investment is \$100 million and the smallest is below \$1 million. Equity investments, as a rule, are much smaller than loans, although exceptions exist. Neither organization has the financial ability to take the lead or to participate as the lead banker on large capital projects (meaning those from \$1 to \$2 billion). However, both have the ability to participate in smaller infrastructure projects.

In 1990, OPIC participated in 127 projects worth a total of over \$7 billion. Of this amount, \$1.6 billion was directed toward OPIC's insurance programs, while \$137 million was directed towards direct loans and loan guarantees. In general, OPIC loans range from \$500,000 to \$6 million, while guarantees range from \$2 million to \$25 million (although guarantees can reach as high as \$50 million).

7. Terms and Types of Assistance

a. IFC and IIC

The IFC and IIC make both equity investments and loans, including loans in any major currency (although 92% of all credit is provided in dollars). They also provide a full range of financial instruments, such as convertible and subordinated debt.

Perceived project risk and IFC's or IIC's cost of funds dictate the interest rate charged. Both organizations make either fixed or floating rate loans. Interest rates on floating rate loans generally range from 150 to 300 basis points above LIBOR. Maturities on IFC loans range from five to fifteen years (including grace periods of one to five years), while the IIC, being newer and more conservative, extends loans with maturities of three to ten years, with an average maturity of five.

Both charge upfront fees and commitment fees which range from 1% to 2% of the loan amounts.

b. OPIC

In its project finance program, OPIC makes both direct loans and loan guarantees. Eligibility for direct loans, however, is limited to projects sponsored by or significantly involving U.S. small businesses or cooperatives, i.e. major corporations are not eligible for direct loans.

Instead, such firms (as well as small businesses and cooperatives) may apply for OPIC loan guarantees, which are issued to U.S. financial institutions (that are more than 50% beneficially owned by U.S. citizens, corporations or partnerships) or foreign lending institutions which are at least 95% U.S.-owned. The guarantees are "all risk" guarantees, thus including both commercial and political risk. OPIC has the authority to issue 100% guarantees (even though OMB policy calls for guarantees to involve some risk sharing by the private sector).

Maturities for loans and guarantees vary depending on the nature of the projects, but generally range from five to twelve years (including a grace period during which only interest is payable). Interest rates on direct loans depend on two factors: OPIC's assessment of the financial and political risk involved; and changes in the interest rates in U.S. long-term capital markets. OPIC's rates, however, are never concessional. For guarantees, OPIC also assesses a guarantee fee which normally averages two percent per year on the outstanding principal amount. In addition, OPIC charges commitment, facility and cancellation fees, and requires reimbursement for external out-of-pocket expenses (such as consultant fees).

* * *

As implied by these characteristics -- hard loan (and guarantee) terms, private sector-only projects (and among these, few capital projects), and the role of financial catalyst -- the private sector approach is situated at the opposite end of the spectrum from the bilateral approach ... with the multilateral approach somewhere in between. None of these approaches is the "right" or "wrong" way to finance capital projects -- but it is clear that each generates different costs and benefits. Using this chapter's description of the three approaches as a foundation for comparison, the next chapter will carefully examine the costs and benefits most important to A.I.D. and, in light of this assessment, will begin to develop the outlines for a possible A.I.D. approach to financing capital projects.

CHAPTER IV

THE FEASIBILITY OF USING CREDIT AUTHORITY TO FINANCE CAPITAL PROJECTS

The previous chapter reviewed how selected bilateral and multilateral institutions use credit authority to finance capital projects in developing countries. The bilateral institutions finance primarily public sector projects at highly concessional interest rates; while each of the bilateral institutions maintain development objectives, the trade benefits they generate for their respective countries are particularly noteworthy. The multilateral institutions, including the World Bank and the regional development banks, also finance public sector capital development projects, but at market rates of interest. Of the various institutions reviewed, only the International Finance Corporation, the Interamerican Investment Corporation, and OPIC focus on financing private sector projects in developing countries.

This chapter seeks to determine whether any of these approaches to financing capital projects are appropriate "models" for the A.I.D. Capital Projects Fund. In other words, would any of these models -- or features of these models -- enable A.I.D. to achieve its objectives and requirements for the use of credit authority in the Capital Projects Fund?

Two of the key objectives of the Capital Projects Fund have already been discussed in Chapter II. The primary objective is to finance developmentally-sound capital projects that meet the economic and social needs of the developing countries in which A.I.D. operates. As is true of all A.I.D. projects, capital projects will be subjected to a rigorous development "screen" prior to authorization and obligation of funds. Generally, A.I.D.'s development screen includes the following items:

Technical Analysis: includes engineering studies, appropriate technology considerations, and operation and maintenance considerations as related to the specific country. Alternative approaches, such as labor intensive versus high technology strategies, are described and evaluated.

Economic Analysis: considers the economic viability of the project as measured by the internal rate of return criterion or the benefit-cost ratio.

Financial Analysis: reviews cash flow and cost recovery; notes impact on country's international reserves, external debt and ability to finance recurrent costs; may recommend financing and cost recovery plans.

Environmental Analysis: provides for tough environmental review under U.S. standards, with mitigating activities often included.

Institutional Analysis: reviews country's ability to manage and maintain projects, in terms of administrative and technical skills; may recommend or describe the training and technical support needed or included to cover institutional needs.

Social Analysis: estimates and describes social impact issues such as effect on health, women, and labor/employment, especially in terms of job creation and income.

A.I.D.'s development impact screen also takes into account several cross-cutting issues, including: the project's relationship to national development plans; the policy and regulatory environment in the recipient country; the project's relationship with USAID Missions' country development plans (which may include policy issues, privatization and investment climate); and the appropriate role of the public versus the private sector in the sectors that the project will affect.

The second objective of the Capital Projects Fund is to support U.S. trade and economic competitiveness. In addition to its traditional development criteria, A.I.D. would apply a second set of criteria to ensure that U.S. business interests are carefully considered in deciding which capital projects it might fund. Only those projects that offer opportunities for products or services from American businesses would be considered for support.

One way of ensuring that U.S. business interests are considered is by estimating the trade leverage of a given project: that is, the purchases of U.S. goods and services resulting from a given project. Much as it measures the potential development impact of its projects, A.I.D. can develop standard criteria to examine and estimate the anticipated trade leverage from its capital projects. Potential components of this trade leverage screen might include:

- American technical superiority or advantage in the project area;
- Demonstrated host-country preference for U.S. technology, services or goods;
- Estimates of future purchases based upon the standard maintenance and replacement of parts over time for that type of project;
- Estimates of the future possibilities for adding-on or upgrading the facilities established in the initial project, along with estimates of purchases required to complete such add-ons or upgrades; and
- The compatibility (or incompatibility) of other countries' parts and supplies with project specifications (i.e. if high substitutability of foreign parts for U.S. parts were possible, then a project would score lower on the trade leverage screen).

These criteria are meant to be illustrative. Setting specific standards for evaluating the impact on U.S. trade and investment will be important to ensure that capital projects meet not only A.I.D.'s standard developmental criteria, but also its newer U.S. business development goals. These types of criteria are relevant whether A.I.D. chooses to use grants or credit authority to finance capital development projects.

In assessing the feasibility of using credit authority to finance capital projects, there is an additional set of "screens" that must be employed. None of these screens are relevant to the design of a grant-funded program, but each is critical to consider in determining the feasibility of using credit authority to finance capital projects. In collaboration with A.I.D. staff, the team has identified four critical screens. The credit portion of the Capital Project Fund must have the following features:

- ◆ *The ability to meet OMB requirements for new federal loan and guarantee proposals*
- ◆ *The ability to derive realistic and acceptable subsidy estimates*
- ◆ *The ability to generate other sources of funds, particularly private sector funds, for co-financing capital projects.*
- ◆ *The ability to comply with the OECD guidelines on tied aid*

Each of these considerations is explored in closer detail in the following sections of this chapter. At the end of the chapter, we assess to what extent the various bilateral and multilateral models for financing capital projects also meet these requirements, and whether any of these programs - or components of these programs - may be appropriate models for the design of A.I.D.'s Capital Projects Fund.

PART 1: CRITERIA FOR ASSESSING THE FEASIBILITY OF USING CREDIT AUTHORITY TO FINANCE INFRASTRUCTURE PROJECTS

A. THE REQUIREMENTS OF OMB

The Office of Management and Budget (OMB) is charged with reviewing all new federal loan and guarantee proposals. Section 504 Federal Credit Reform Act of 1990, 2 USC Section 661c(b), requires federal departments and agencies to obtain appropriations of budget authority before they can incur new direct loan or guaranteed loan commitments. OMB Circular Number A-19 outlines procedures used by OMB to clear proposed new legislation, including legislation to seek new credit authority.

OMB will have three primary concerns in its review of proposed legislation: (i) that new proposals meet OMB's internal standards for new legislation; (ii) that new proposals are methodologically sound and do not duplicate or contradict other government agencies' efforts; and (iii) that the proposal's subsidy estimates are determined with rigor. In considering a proposal for legislation to authorize credit authority for the Capital Projects Fund, OMB would conduct its own internal review. It would also consult with other agencies whose program areas might be affected by the proposal or whose expertise is considered valuable in evaluating the proposal. The concerns of these various institutions in reviewing the proposed legislation would be along the following lines.

1. OMB Internal Review

Within OMB, the proposed legislation would be reviewed by its International Affairs Division, its Office of Management, the Budget Review and Concepts Division, and the Economic Policy Division. The distribution of responsibilities among these OMB offices for new proposals is as follows:

- The International Affairs Division would comment on all aspects of the proposal and is specifically responsible for: determining all costs and/or savings associated with the proposal in accordance the scoring rules established by the Budget Enforcement Act of 1990; verifying the methodology used in computing the subsidy; and discussing whether the proposal is consistent with Administration policy.
- The Office of Management examines whether the proposal meets the requirements of OMB Circulars A-70 and A-129.

Circular A-70, among other things, establishes standards for proposing, reviewing and evaluating credit programs; sets guidelines for determining the debt instrument's terms and conditions; sets guidelines for determining the appropriate levels of risk sharing between the government, the borrower, and, in the case of guaranteed loans, the private lender; and outlines standards for determining the credit worthiness of loan recipients.

Circular A-129, among other things, establishes guidelines for effective management control of credit programs; and sets guidelines for the prescreening of applicants and participant lenders, for servicing standards, and for collection and delinquent debt procedures.

- The Budget Review and Concepts Division ensures compliance with all credit reform concepts and procedures, as described in OMB circulars A-11 and A-34. It would also examine financing capital projects through the use of credit authority versus grants from a benefit-cost perspective.
- The Economic Policy Division would comment on the methodology used in developing subsidy estimates and would evaluate A.I.D.'s proposed use of "risk categories" as defined in Circulars A-11 and A-34.

Per Circular A-70, OMB also requires that agencies clearly define the objectives of all proposed loan and guarantee programs. Three key objectives of federal credit programs are defined in *The Economics of Federal Credit Programs*: (i) to improve the efficiency of markets by correcting market imperfections and encouraging innovations; (ii) to reallocate resources toward activities that are judged to have a public value greater than that reflected in private decisions; and (iii) to redistribute income by providing a transfer to selected firms and individuals (Bosworth, Carron, and Rhyne, p. 7).

The first objective, correcting market imperfections, is probably not a major objective for the use of credit authority under the A.I.D. Capital Projects Fund. A market imperfection can be defined as "any impediment to credit access that an otherwise credit-worthy company would have if credit markets were functioning in an efficient manner," (Washington Consulting Group, p. 8). For example, market imperfections arise when lenders have imperfect information about a particular group of borrowers (such as micro and small enterprises), or when laws prevent repatriation or currency convertibility. In the case of capital projects, some projects in developing countries may be credit-worthy, and yet, may not be financed because of the *perceived* risk of lending to such projects; this may be attributable to market imperfections. However, in general, capital projects do involve considerable risks for lending institutions, particularly because of the size and the maturity of the loans inherent in these types of projects. In evaluating potential capital projects, lenders may be making a rational decision, based on risk and credit analysis, not to participate. Market imperfections are not as much of a problem, as is the real risk inherent in many infrastructure projects.

Nonetheless, there are cogent reasons for the U.S. government to use its credit authority to finance capital projects in developing countries. Infrastructure development can be an excellent example, as outlined in the second objective, of an activity where the public value is greater than that reflected in private decisions. Indeed, as discussed in Annex 5, this has been the rationale for much of the infrastructure financed by U.S. federal, state, and local governments. In the case of the Capital Projects Fund, the public value of the fund's activities would be two-fold: (i) projects would address the developmental needs of the countries in which A.I.D. operates,

and (ii) projects would promote long-term trade benefits for the United States. For this reason, it will be important for A.I.D. to establish rigorous processes for evaluating the developmental and trade benefits of proposed projects.

It is also important to recognize that such benefits could not be obtained via a grant program in the same measure. Under credit reform, \$20 million in budget authority can be converted into \$100 million or more in loans or guarantees, if the subsidy value of the program is less than 20 percent. Under a grant program, \$20 million in budget authority provides only \$20 million in project funding and little, if any, added leverage in the form of borrowed funds, resulting in diminished benefits for developing countries as well as the United States.

2. Other Agencies' Views

For new proposals such as the Capital Projects Fund, OMB would consult with the Department of State, the Export-Import Bank, the Overseas Private Investment Corporation, and the Department of Treasury. These agencies could be expected to examine a new proposal in the following manner.

- Department of State would comment on the consistency between the proposal and State's development and foreign policies, as well as the country risk methodology used in predicting loan defaults.
- The Export-Import Bank would comment on the subsidy methodology, including the methodology governing country risk and the credit rating of participating lenders and borrowers, as well as the effects of the proposal on Eximbank programs.
- The Overseas Private Investment Corporation would examine the proposal's subsidy methodology (including methodology governing country risk and the credit rating of participating lenders and borrowers) and the effect of A.I.D.'s proposal on OPIC programs.
- Department of Treasury. Treasury's views are generally requested on all proposed legislation dealing with credit markets and debt instruments. Treasury's main concern tends to be whether the extension of credit is a more cost-effective means of financing the specified activity than an outright grant.

B. SUBSIDY ESTIMATES

OMB's confidence in the derivation of the subsidy is an important issue with respect to clearing a proposal for new program authority. The subsidy estimate is used to calculate the amount of annual appropriation required for a federal loan or guarantee program. Because the subsidy captures all the financial characteristics of the loan transaction and can be directly compared to alternative funding methods, it must be derived using methodologies that meet OMB requirements, and that use assumptions based upon sound financial reasoning and, if available, empirical evidence. A.I.D. should be prepared to be conservative with its assumptions and to provide a range of possible subsidies under alternative financial conditions. In addition, A.I.D. must demonstrate that its process of screening loans and guarantees and categorizing them into various risk categories is rigorous and adequate to assure that the subsidy estimates for each category are realistic.

Attachment E to BPM No. 770 "Credit Reform Estimates" provides a methodology for estimating credit subsidies. This methodology will be used in the later revision of Attachment A to OMB Circular No. A-70. The methodology begins by defining the credit subsidy amount as that portion of expected payments by the U.S. government, generally in the form of payout on loans or guarantees for loans that default, that the government does not expect to be offset by collections (for example, from loan or guarantee fees), in present value terms.

Credit subsidy amounts are calculated according to cohorts of loans and guarantees. That is to say, the annual appropriation for credit subsidy is available to be used for direct loans and guarantees extended in a particular budget year, say FY 1993. The credit subsidy calculation involves a forecast of the present value of future losses to the U.S. government from loans provided during that year. That forecast is expressed in terms of a percentage of total loans provided during the year.

Credit reform was enacted in 1990, and OMB continues to improve the methodologies used in its application. As a general rule, programs with a historical track record are likely to benefit from a pattern of low default rates. This is primarily because OMB tends to be conservative in anticipating losses from new credit programs. Also, OMB and CBO at this point have approved two separate approaches to calculating credit subsidies that are not fully consistent. Programs with an historical track record of low defaults are able to select the approach that permits them to generate credit subsidy estimates based upon those track records.

This first approach uses historical data or analytical judgment to project the government's expected cash flows from the cohort of loans that the program expects to provide or guarantee in a particular year. The projection includes initial-year cash flows (for instance, receipt of origination fees) and the present value of expected future cash flows (for instance, receipt of annual fees and outlays due to defaults on direct loans or guarantees). The flows are discounted to present value using the benchmark rate of a Treasury security of the same maturity as the average guaranteed loan. This first approach has been used by programs with demonstrated track records of low defaults, including OPIC and A.I.D.'s Private Sector Investment Program.

In OMB's perspective, a major shortcoming of this approach is that it is retrospective rather than forward-looking. Thus, for credit assistance to private sector borrowers in other countries, this first approach fails to anticipate changes in country risk that could make future chances of repayment quite different from those of past years.

The second approach is more forward-looking. It attempts to estimate the interest rate on an identical private loan made without a federal guarantee. The estimated rate is adjusted somewhat to reflect the cost to the government of the guarantee. This provides a discount rate that is approximately equal to the risk-free rate plus a premium to cover the cost of expected defaults. OMB now publishes an annual table of risk ratings of countries, expressed in the form of risk premia (in basis points) over a benchmark "AAA" rate for a security of appropriate maturity. (See Table IV-2, and the more extensive discussion below.)

OMB requires that federal agencies use the second approach to calculate credit subsidy estimates for federal loans or guarantees to sovereign country borrowers and that the specified OMB risk premium table and country risk category be applied. To the extent that foreign private sector loans are affected by country risk, OMB will want the appropriate country risk premia to be factored into the credit subsidy model. However, at least for FY 1993, programs such as PSIP and the OPIC guarantee program have not been held to this requirement. OMB and CBO are now exploring ways to deal with such programs by integrating elements of the two approaches. Eventually credit subsidy estimates for private sector international programs may involve adjustments to historical track records to incorporate such elements as (for example) forward-looking country risk assessments.

1. Sovereign Loans and Guarantees

The U.S. government has an interagency group, dubbed "CRASUS," for Country Risk Assessment System of the U.S. government. The interagency group has assigned countries to one of eleven risk ratings ranging from single A to F minus. The probability of default over the life of a loan or a guarantee to a given country relates directly to its risk category. The default estimate is then used to determine both expected chances of repayment and subsidy levels. The country ratings are reviewed at least annually, and, more frequently as necessary. The CRASUS rating assigned to individual countries and the rating system itself are classified as "Confidential" because release to the public is considered potentially harmful to the foreign policy of the United States.

Risk categories are forward-looking in nature. That is, they rely upon the past pattern of repayments of each country, but also on the prospects for future repayments. Significant in the minds of CRASUS members are examples such as Iran, that until the late 1970s had a strong track record of repayment. The CRASUS system is designed to take into account, to the extent possible, the likelihood of future risks, as well as such a past track record.

Table IV-1 presents the OMB risk premia for each category of country, according to maturity of loan. The risk premia are presented in basis points of spread above a benchmark "AAA" bond. As a general rule, but not always, the risk of a loan or guarantee is believed to increase as the maturity increases. The risk always increases according to the risk category of the country involved, and in this regard the CRASUS system is analogous to the credit rating system used by nationally recognized rating agencies such as Standard & Poor's and Moody's Investor Service.

Table IV-2 provides tentative credit subsidy calculations in specific categories. It can be seen that, for 20-year direct loans (a reasonable term for a capital project) the credit subsidy amounts range from 2.66% for an A category country to 63.54% for an F category country. For a 20-year term loan guarantee, the range would be from 2.09% to 48.23%. Direct loans involve slightly higher credit subsidies than loan guarantees because a default costs the government not only lost principal, but also its foregone collection of interest payments. For a guarantee, the government is assumed to pay off all principal but only to pay interest for the half-year between default and the government's final payment to the party whose losses were guaranteed. The actual credit subsidy amounts will depend upon particular details of the assumptions used, such as the maturity, disbursement and amortization schedules of each particular loan.

TABLE IV-1
OMB RISK PREMIA
(in basis points)

MATURITY

CATEGORY	1 Year	5 Years	10 Years	30 Years
A	25	30	30	40
B	40	45	50	75
C	80	90	100	135
C-	187	181	164	196
D	401	362	292	317
D-	571	484	439	464
E	911	729	734	759
E-	1366	1094	1100	1138
F	2276	1823	1834	1896
F-	3187	2552	2567	2655
F--	5008	4010	4034	4172

November 1991

Note: One basis point is one one-hundredth of a percentage point.

TABLE IV-2

SOVEREIGN LENDING

SUBSIDY ESTIMATES FOR A.I.D. GUARANTEED AND DIRECT LOANS

Future Cashflow Based on Amortized Repayments Over 20 Years
(In Percentages)

	Sovereign Risk Category					
	A	B	C	D	E	F
Direct Loans	2.66	4.71	8.54	19.89	39.10	63.54
Guaranteed Loans	2.09	3.70	6.70	15.53	30.21	48.23

Note: Credit subsidy estimates for direct loans are higher than for comparable loan guarantees. This is because a default on a direct loan costs the government scheduled future interest payments that are lost, and not merely lost principal. For a defaulted loan guarantee, the government pays lost principal and only a small amount of interest (here assumed to be about half a year) that accrues between default and the government's payoff of the party whose investment had been guaranteed.

2. Private Loans and Guarantees

For a private borrower, the likelihood of default on a loan depends on the country credit risk because of macroeconomic policies or political changes that could affect the likelihood of repayment, as well as the creditworthiness of the individual private borrower or project. Project risk includes characteristics such as management, project financial viability, financial resources of the sponsor and recourse, and adequacy of collateral security.

Conceptually, the creditworthiness of a private sector borrower in a given country might be greater or lower than that of a comparable sovereign loan to the government of that country. In practice, only a handful of private transactions have seemed to have higher creditworthiness than a sovereign loan. These would be extensions of credit to borrowers, for example, who have export earnings in hard currencies that are kept offshore and are thereby insulated from macroeconomic or political changes in the developing country. Especially for longer-term loans, international lending experience indicates that most extensions of credit to private borrowers have been more risky than sovereign loans to the countries where the borrowers were located.

Within the U.S. Government, however, the Overseas Private Investment Corporation (OPIC) and A.I.D. (for its Private Sector Investment Program) have developed track records that would seem to indicate that some private sector loans might be structured to have lower risk than sovereign loans to many countries. Structuring projects to minimize country risk involves increasing protection against foreign exchange risk as well as general credit risk. This structuring may include:

- Off-shore escrow accounts;
- Free trade zone status of borrower;
- Loans are made to a U.S. entity;
- Presence of physical collateral in the U.S., the host country or in third countries;
- Project completion or guaranty agreements with U.S. sponsors, including debt servicing obligations;
- Related marketing companies located in a third country or U.S.;
- Operation of the local company as a cost center utilizing transfer pricing to retain funds offshore;
- Borrower has completed long-term purchase contracts for exports; or

- Specific arrangements by a host government assuring special access to foreign exchange for the project as a way to encourage private investment.

3. Key Factors Affecting the Subsidy Estimates

a. Interest Rates and Fees

Under credit reform, concessional financing is treated as the present value of expected annual payments to buy-down interest rates for a project. For U.S. budget scoring purposes, the benchmark Treasury interest rate is prescribed by OMB each year. For FY 1993, it is 7.03% for a 20-year maturity. Table IV-3 on the following page shows that, for a 20-year loan, a one-percentage point interest rate subsidy (the present value of the spread between the benchmark Treasury rate and the lower subsidized contract loan rate) involves a budgeted cost of about 7.6% of the amount of the loan; a two-percentage point subsidy involves a budgeted cost of about 15% of the loan amount, and a four-percentage point subsidy involves about 29%.

These are the interest subsidy calculations for a direct loan. The relevant interest rate subsidy calculations tend to favor direct loans over loan guarantees. This is because for direct loans the interest rate subsidy is measured as a spread below the benchmark Treasury rate. In contrast, interest rate subsidies for loan guarantees are measured as a spread below the contract rate for each guaranteed loan. As a practical matter, the contract rate for a particular financing, even with a U.S. government guarantee, will tend to be above the benchmark Treasury rate. Thus, for purposes of concessional financing, the budget treatment of direct loans is preferable to the treatment of guarantees.

Just as concessional financing increases the subsidy estimate, charging interest rates above the benchmark Treasury rate serves to decrease the subsidy estimate. If the contract rate for a direct loan is above the benchmark rate, the agency is permitted to record a negative subsidy (i.e., a positive profit) that can be used to offset credit subsidy amounts scored for lending under the program. Hence, in order to reduce its subsidy estimates, A.I.D. could potentially charge contract interest rates above the benchmark Treasury rate on direct loans. These choices are matters of policy and do not alter the credit subsidy model and its underlying numerical assumptions. Also, A.I.D. could charge loan fees that could be used in whole or in part to pay for financial analyses and other administrative expenses in assuring rigorous loan origination and administration.

TABLE IV-3

SUBSIDY IMPACT OF 1, 2 AND 4 PERCENT INTEREST BUY-DOWN

(For a \$1,000,000 Direct Loan)

Assumptions:

Loan Amount	\$1,000,000
Contract Rate before Buy-down	7.03%
Discount rate (Treasury rate)	7.03%
Maturity (years)	20

Contract Rate	7.03%	6.03%	5.03%	3.03%
Amount of Buy-Down	None	One percent	Two percent	Four percent
Interest Subsidy Amount (PV)	0	\$76,270	\$149,729	\$287,601
Interest Subsidy Rate	0%	7.63%	14.97%	28.76%

b. Risk-Sharing

The extension of credit to private borrowers can be structured as a guarantee or as a direct loan. The lending agency could, for example, extend its guarantee to an intermediary financial institution. The financial institution, in turn, would loan funds for particular capital projects. Under credit reform, OMB will apply the same general credit subsidy methodology for loans and guarantees. However, there is one difference in OMB's perspective, between a direct loan and a guarantee. This is expressed in the OMB policy that calls for guarantees to involve some risk-sharing by the private sector. OMB Circular No. A-70 (revised) states:

Loan guarantees that cover 100% of credit risk will encourage private lenders to exercise less caution than they otherwise would in evaluating loan requests from guaranteed borrowers. In general, loan guarantees should be structured so that private lenders bear a significant portion of the risk of a loss from a default. "Significant" is defined as equal to or greater than 20 percent of the loss stemming from default. OMB Circular No. A-70 (revised), pages 7-8, August 24, 1984.

There is no comparable requirement for direct loans, at least at this time. Also, OPIC reports that it has obtained legislative authority to issue 100 percent guarantees, without private risk-sharing on the guarantee. If there is risk-sharing by a private financial institution, this can reduce the credit subsidy calculation to the extent that the financial institution reduces either the risk or the cost of default by the ultimate borrower. It should similarly be possible to obtain private cofinancing for a direct loan as a way of reducing credit risk.

The requirement of private risk-sharing raises an issue of credit availability: to what extent will private lenders be willing to take credit risk themselves in extending long term credit for capital projects? OMB will want to be assured that the program has contingency plans in the event that guarantees are unavailable because of lack of private sector partners. Moreover, an absence of anticipated private sector partners could be taken by OMB as a sign that program goals and budgeted credit subsidy amounts must be scrutinized with particular care.

C. LEVERAGE

A.I.D.'s anticipated resources for its renewed capital projects efforts are expected to be \$100 million in FY 1993 -- a sum too small to support a wholly grant-funded program. Thus, another important criterion in assessing the feasibility of the Capital Projects Fund is the extent to which Fund resources can be augmented by other sources of finance, particularly private sector funds. This section will examine why (besides budget realities) A.I.D. might wish to leverage its funds by using loans and loan guarantees rather than grants, the likelihood of achieving such leverage through direct loans versus loan guarantees, and the types and degrees of leverage that A.I.D. could potentially achieve.

1. Grants versus Loans and Loan Guarantees

From a recipient's perspective, grants are a preferred financial mechanism. For recipients, grants are payment-free and cost-free, which thereby lowers a project's break-even threshold and increases a project's rate of return. From a donor's perspective, however, grants are less attractive, not only because they are more costly, but also because they may reduce the financial incentives for choosing and implementing sound projects. Projects funded through direct loans and loan guarantees, by contrast, are likely to increase the borrower's discipline in project evaluation, construction, operation and management, precisely because such funding demands that the project achieve a high enough rate of return so that the lender can be repaid. In addition to increased discipline and accountability on the part of the borrower, loans and loan guarantees engender another benefit for the lender; because loans are repaid, funds can eventually be recycled for other uses. These benefits underlie A.I.D.'s preference for using loans and loan guarantees for funding capital projects.

In some cases, however, grants will be a more appropriate financial mechanism than either loans or loan guarantees. In accordance with its mandate, A.I.D. operates in many of the poorest countries of the world, where the needs for infrastructure are great, but the ability to repay is weak. In these countries, grants are more appropriate. In addition, it makes sense to use grants in high-risk countries (such as those classified as "F" under the Country Risk Assessment System). In these countries, the risk -- and hence the subsidy estimates -- are so high that little leverage can be gained through the use of credit.

2. Direct Loans versus Loan Guarantees

A significant issue for A.I.D. is the extent to which it can share project risk with private entities. As noted on the previous page, OMB requires that a private lender assume at least 20% of the credit risk in the case of loan guarantees. There is no comparable requirement for A.I.D. direct loans. Thus, if A.I.D. uses loan guarantees to finance capital projects, it faces not only the other requirements delineated in this chapter, but also the necessity of finding private sponsors willing to take at least 20% of the credit risk.

Finding such participants may prove to be difficult. Private international lenders in recent years have exhibited extreme reluctance to finance projects in developing countries and may be even less willing to extend the large sums normally necessary for capital projects. Even the IFC utilizes a less direct means of encouraging private participation -- its syndication process -- and also provides private lenders the "cover" of the IFC/World Bank umbrella. A.I.D. would be unable to offer comparable reassurance to private entities. However, even with direct loans, A.I.D. will share risk, simply because nearly all capital projects today involve more than one source of finance; the only difference between loans and loan guarantees is that loan guarantees require risk-sharing on the credit extended by A.I.D.

Given today's climate for international private lending to developing countries, the team favors the use of direct loans over loan guarantees for capital projects. A.I.D. can achieve its goal of risk-sharing through direct loans while subjecting the credit process to fewer complications. Nevertheless, as with the authority to extend grants for capital projects, the team believes that A.I.D. should have the ability to use loan guarantees should situations arise in which a private lender is willing to participate.

3. Types of Leverage

Both direct loans and loan guarantees engender the same types and degrees of leverage. For the purposes of this study, it is important to make the distinction between three types of leverage: financial, project and program.

a. Financial Leverage

Financial leverage is the ability to make loans and loan guarantees at some multiple of the annual budget appropriation. The budget appropriation will be derived from the subsidy estimates described above. The concept of leveraging budget appropriations is most akin to a bank, which is able to lend at some multiple of its capital and reserve base. For example, if the budget appropriation is \$100 million and the subsidy multiple is 5 to 1, then the program can provide loans and guarantees which are five times its budget appropriation, or \$500 million in this case.

b. Project Leverage

Project leverage is the ability to combine an institution's loans and loan guarantees with other sources of funds on a given project. For instance, if a project costs \$100 million, and A.I.D. were to provide 25 percent of the funding (or \$25 million) and the other 75 percent were provided by other sources, A.I.D. would be able to leverage its funds by a ratio of 1 to 4. For every dollar provided by A.I.D., other sources of funding are providing three dollars. Together they are funding a project four times the amount of the A.I.D. contribution.

c. Program Leverage

Program leverage is the combination of the financial leverage and the project leverage. The total program leverage is the value of all projects that can be financed from the budget appropriation by Congress. For example, if Congress appropriates \$100 million for the program and the financial leverage is 5 to 1, then the program can provide a total of \$500 million in direct loans and loan guarantees. If this \$500 million is used to finance 25 percent of a \$2 billion project, then the project leverage is 4 to 1. The total program leverage is 20 to 1 because the \$100 million from Congress has resulted in \$2 billion worth of projects. While these numbers are purely illustrative, they demonstrate the potential leverage that may be gained as a result of credit reform.

D. CONFORMITY WITH OECD GUIDELINES

There are two different sets of guidelines provided by the Organization for Economic Cooperation and Development (OECD) which affect the use of credit authority for support of capital projects. The first set establishes the development criteria that each potential capital project must meet in order to be approved; the second set delineates rules for tied aid eligibility.

1. Development Criteria

The Development Assistance Committee of the OECD has established an "Aid Quality Checklist" which seeks to assure the development soundness of individual projects financed with official development assistance. These guidelines are totally consistent with A.I.D.'s long-standing development screens or criteria for project soundness, described earlier in this chapter. The guidelines cover the following general categories: project identification, appraisal and selection; technical appraisal; financial appraisal; economic appraisal; environmental appraisal; special rules for tied aid (including untied and partially tied official development assistance, ODA); procurement; international and national competitive bidding; and developing countries as eligible sources.

2. Tied Aid

The second set of OECD guidelines establishes rules and procedures to determine when tied and partially tied aid is likely to distort trade and therefore should not be extended. Tied aid is concessional financing linked to the procurement of goods and services. Tied aid credits can either stand alone or be mixed with commercial financing or standard official export credits; the latter is referred to as mixed credits.

The tied aid credits that potentially distort trade are defined by the OECD regulations as those with a concessionality level less than 80 percent. Hence, projects that are funded by grants or highly concessional financing are excluded from the OECD guidelines. Projects below SDR 2 million (roughly \$2.5 million) are also excluded.

The OECD guidelines vary depending on the developing country's per capita income levels. The new tied aid guidelines adopted by the OECD on December 16, 1991 operate as follows:

- *Relatively wealthy developing countries* (those having annual per capita income of more than \$2,465 in 1990) are no longer eligible for any tied aid credits. As middle income countries grow, they will graduate into this category, thereby becoming ineligible for tied aid credits.
- *The least developed countries* are exempt from the new guidelines because of their urgent need for concessional assistance, whether tied or untied. A minimum of 50% concessionality is required when providing tied aid credits to these countries.
- *Middle income countries* are subject to new regulations designed to make it more difficult for DAC member countries to extend concessional financing. For these countries, tied aid is permissible under two circumstances. First, tied aid is allowed if the concessionality level is above 80%. (The rationale for this rule is that if concessionality is this high, the donor country is essentially giving the project to the developing country, and that for this "gift" the donor country should be allowed to tie this aid.)

For middle income countries, tied aid is also permissible if the project, with market-oriented pricing, is not financially viable. In this case, the concessionality level must be at least 35%. A project is considered "financially viable" if it has the capacity, with appropriate pricing determined on market principles, to generate cash flow sufficient to cover the project's operating costs and to service the capital employed. The rationale behind this rule is that projects that are productive enough to service debt on market terms should be allocated debt on market terms, thereby saving scarce concessional assistance for projects that cannot attract and support such financing. The availability of aid funds should not "crowd out" commercial financing.

For middle income countries, tied aid is not permissible if the project is financially viable. However, if it can be demonstrated that market financing is not available for a financially viable project, then the project may be eligible for tied aid.

The new agreement within the OECD also institutes a comprehensive reporting and consultations process to interpret and enforce the rules. All offers of tied and partially untied aid that fall under the aegis of the new guidelines, as well as untied aid, must be submitted for notification 30 working days before the bid closing date or the extension of the financing offer, whichever date comes first. Any participant in the OECD arrangement may then challenge a notification as not meeting the new rules and/or not being effectively untied. The onus is on the donor country to explain how it intends to operate within the rules. If there is not substantial support for the use of tied aid, the donor country will be asked not to go forward.

There are a number of "grey areas" in the OECD guidelines, one of the more important being the criteria for determining when a project is financially viable or not. The U.S. Treasury Department, the lead U.S. government agency in the OECD negotiations, anticipates that the challenge/consultations process described above will be evoked primarily when there are differing views as to the commercial viability of a project. The consultations process will be used to reconcile differences on a project-by-project basis, resulting in a body of case law which defines more clearly the parameters of the OECD guidelines.

In the future, the U.S. Treasury Department and the Eximbank intend to monitor closely OECD participants' compliance with the new rules -- and challenge whenever necessary. Because of its lead role in developing the new rules, Treasury is sensitive to the need for U.S. government agencies to work well within the boundaries. From Treasury's perspective, A.I.D. should not seek to test the limits of the new guidelines, as many other countries may well do. Rather, it should seek to finance projects that clearly fall within the new guidelines.

The U.S. business community has a very different perspective on the new OECD guidelines. On December 18, 1991, the House Sub-Committee on International Economic Policy and Trade held a hearing; those who testified in the hearing included representatives of Treasury, Eximbank, and three U.S. companies (AT&T, Westinghouse Electric, and Asea Brown Boveri). Some of the key concerns of the business representatives expressed in this hearing, as well as the team's interviews with the engineering and construction community, were the following:

- The United States government will be in the position of having to "police" other countries' compliance with the new regulations. This position may well hurt our relationship with the governments of developing countries, since concessional financing lessens the cost of a project to these countries.
- To avoid potential challenges from the U.S. government, OECD countries may increasingly resort to informal tying mechanisms. For example, developing country governments might choose a specific donor country to develop the specifications for a capital project, knowing that this country would provide concessional finance in the future. The project would be "competitively" bid, but would probably result in an award to the country that developed the specifications and provided the necessary finance.
- In the future, Eximbank intends to use the War Chest funds selectively and defensively. It will be used to match other countries' offers in cases where tied aid should not be used, and where consultations have not resulted in withdrawal of a tied aid offer considered inappropriate. The U.S. business community believes that the War Chest -- or similar concessional financing mechanisms -- should be used proactively, not just in reaction to other countries' financing offers. For many U.S. companies, it is simply not worth the effort to put together a bid, if there is only a "chance" of competitive Eximbank financing.

- **U.S. businesses are also concerned that the U.S. government may not have the resources needed to ensure compliance with the regulations (although one senior staff person from Eximbank has been assigned to this task on a full-time basis). In addition, the OECD agreement does not provide for sanctions or punitive measures, so it is not clear what incentive or disincentive countries may have for compliance.**

What are the implications for A.I.D.? The Agency is essentially caught in the middle. It has created the Capital Projects Fund in order to create partnerships with U.S. firms. However, it must also comply with the OECD guidelines. From Treasury's perspective, this means financing projects that do not test the boundaries of the guidelines. Until a body of case law is developed which interprets and clarifies the guidelines, A.I.D. must stay well within "safe boundaries." The tables on the following pages help to summarize the OECD guidelines and their application in selected A.I.D. eligible countries.

TABLE IV-4

NEW OECD RULES FOR TIED AID FINANCING
Effective December 16, 1991

LDC's Economic Level	Type of Project	Tied Aid Eligible	Minimum Concessionality
Higher Income: 1990 Per Capita GNP Over \$2,465	All Projects	No	--
Middle Income Developing Countries	Financially Viable Projects	No, unless market financing is unavailable	35 percent
	Not Financially Viable Projects	Yes	35 percent
Low Income Developing Countries	All Development Projects	Yes	50 percent

Notes:

1. These rules apply only when value of the entire financing for the project is more than SDR 2 million (approximately \$2.5 million). Projects less than SDR 2 million are exempt from all OECD rules. For purposes of determining total funding attributed to a donor and the degree of concessionality, all official credits and private financing for the project will be counted.
2. A project is considered "financially viable" if it has the capacity, with appropriate pricing determined on market principles, to generate cash flow sufficient to cover the project's operating costs and to service the capital employed. It is anticipated that the definition of "financially" viable will be the subject of discussion and further elaboration in case law reported by the OECD.
3. Agencies offering credit on agreed market rate terms are permitted to tie procurement.

TABLE IV-5

**SELECTED A.I.D. ELIGIBLE COUNTRIES
CLASSIFIED ACCORDING TO THE OECD GUIDELINES**

<p>HIGH INCOME COUNTRIES: (Not eligible for concessional finance)</p>	<p>Czechoslovakia Hungary Mexico</p>	<p>Uruguay Venezuela Yugoslavia</p>
<p>MIDDLE INCOME COUNTRIES: (Limited eligibility for concessional finance)</p>	<p>Bolivia Bulgaria Cameroon Chile Costa Rica Cote d'Ivoire Dominican Republic Egypt Ghana Guatemala Honduras India Indonesia Jamaica Jordan Kenya</p>	<p>Madagascar Mauritius Morocco Namibia Nepal Nigeria Pakistan Panama Philippines Poland Senegal Sri Lanka Tunisia Turkey Zambia Zimbabwe</p>
<p>LOW INCOME COUNTRIES: (All projects eligible for concessional finance)</p>	<p>Bangladesh Botswana Burkina Faso Burundi Cape Verde Chad Gambia</p>	<p>Guinea-Bissau Lesotho Malawi Nepal Tanzania Togo Yemen</p>

PART II: ASSESSMENT OF BILATERAL AND MULTILATERAL PROGRAMS USING A.I.D.'S CRITERIA

In addition to choosing capital projects which will forward its development and trade objectives, A.I.D. must also choose projects that comply with the criteria delineated in Part I. Very simply put, A.I.D. capital projects must:

- Contribute to developing countries' economic and social growth;
- Enhance U.S. trade with developing countries;
- Meet OMB requirements for assessing and managing risk;
- Meet OMB requirements for deriving realistic and acceptable subsidy estimates;
- Justify or explain to OMB the cost of any interest rate subsidies involved in extending loans at preferential (concessional) rates;
- Generate financial leverage, by galvanizing other sources of funds (particularly private sector funds) for capital projects; and
- Comply with OECD guidelines on tied aid.

As noted at the beginning of Chapter II, however, A.I.D. does not have to "start from scratch" in developing an approach to capital projects finance that will satisfy these objectives and criteria. Rather, A.I.D. may evaluate, disaggregate, and then use the parts of the bilateral, multilateral and private sector approaches which it believes will work toward these objectives and requirements. Building the foundation for this evaluation, Chapter II discussed the development and trade objectives inherent in capital projects (and other donors' strategies regarding these objectives), while Chapter III described the other major donors' general approaches and strategies for financing capital projects. Part II of this chapter addresses a question that is critical if other donors' experience is to be utilized in developing A.I.D.'s own approach to capital project finance: how do the bilateral, multilateral and private sector approaches "measure up" against A.I.D.'s criteria¹?

¹ Because it would be difficult to determine without access to individual project evaluations, this section will not weigh the developmental benefits engendered by the projects undertaken by the organizations categorized under the bilateral, multilateral and private sector approaches. Instead, because each of these organizations operates under a developmental mandate, we assume that their projects contribute in some fashion to the economic and social development of the countries in which they work.

E. THE BILATERAL MODEL

1. Trade Leverage

As stated in Chapter II, the bilateral organizations intend for their development projects to result in trade benefits for their countries and commercial benefits for their businesses. They believe this objective is legitimate not only from a developmental standpoint (providing modern and appropriate technologies for developing countries) but also from a practical standpoint (building a constituency for their foreign assistance programs). As a result, the trade leverage that results from the bilateral approach is significant. The bilaterals enjoy benefits not only in the short term (e.g. in 1990, 91% of the foreign exchange portion of KfW's commitments returned to Germany via purchases from German firms), but also in the long term, as their early entry (through foreign assistance) into countries sets technology standards that are expensive to change at a later date ... when the developing country may be prepared to upgrade or expand its system on a commercial basis.

2. OMB Requirements

a. Risk Management Procedures

It is very difficult to determine the procedures, and the rigor of the procedures, that the bilaterals use to assess and manage credit risks. It appears that KfW does not have a risk management program for its developing country loans. OECF does have a risk management program, although its dimensions and procedures are not known. Because of this risk management program, OECF sets aside funds each year for reserves. However, this amount is tiny: each year, OECF sets aside only 1/10,000 of each loan as a reserve. CCCE also sets aside reserves each year for bad investments. Prior to 1990, CCCE reserved approximately 5% of the amount of commitments made. Beginning in 1990, however, it appears that CCCE started to follow new risk procedures, which require that for new investments, CCCE will have to set aside 50% for non-sovereign investments in developing countries, 4% for general banking risks, and the regular reserve amount of 5%. Are these credible risk management procedures? Without more information, it is not possible to determine.

b. Concessional Interest Rates

As detailed earlier, the bilaterals' lending occurs predominantly on concessional terms. Only CCCE has a hard loan window, and that window accounted for only 6% of CCCE's total lending for 1990. KfW and OECF only offer concessional loans, even in the tiny proportion of OECF's lending that is directed towards the private sector. These concessional rates affect the subsidy estimates, as discussed below.

3. Subsidy Estimates

The subsidy rates of the bilateral institutions are extremely high due to two factors: (i) these institutions operate in a wide range of countries, many of which are high-risk according to the CRASUS classifications, and (ii) more importantly, their interest rates are highly concessional. Both of these factors increase the subsidy calculations for bilateral institutions. A rough estimate of the subsidy calculations for the projects authorized in 1990 by OECF and CCCE² is as follows:

	<u>Credit Subsidy</u>	<u>Interest Subsidy</u>	<u>Total Subsidy</u>
OECF	18%	15%	33%
CCCE	34%	10%	44%

4. Leverage

All of the funding for KfW's development loans comes from Federal government budget appropriations. In 1991, this amounted to DM 3.7 billion. KfW's own borrowings finance only that portion of its funding used for mixed credits; in 1991, this amounted to only DM 0.6 billion. Financial leverage is the ratio of the budget appropriation to the total resources generated; in the case of KfW, this is 3.7/4.3, or roughly, a ratio of 1.0:1.2. This financial leverage ratio is very low, compared to the targets A.I.D. has set for itself.

OECF is funded very much like a development bank. The government provided the original equity capital and continues to add new equity capital. OECF obtains additional funding by borrowing from government trust funds. By law, OECF can borrow up to three times its capital and reserves. As of 1991, OECF had ¥ 2.7 trillion in equity capital. Against this equity, it had borrowed another ¥ 3.5 trillion from government trust funds. As of 1991, the total amount of its outstanding loans was ¥ 6 trillion. Therefore, the financial leverage on its loans is 2.7:6.0 or just over a ratio of 1:2, low leverage compared to A.I.D. expectations.

Of all the bilateral organizations, the CCCE is the most highly leveraged. This may reflect the fact that the federal government guarantees many of its borrowings and its loans and that the size of its capital base is not as important. As of 1990, CCCE's equity capital was FF 1 billion, and its total borrowings were FF 51 billion. Therefore, CCCE's financial leverage is about 1:51.

²This information is not available for KfW.

5. OECD Compliance

Although it is difficult to reach a definitive judgment, OECD regulations could present problems for the bilateral approach to financing capital projects ... if the bilaterals comply with the guidelines. The U.S. has been the greatest advocate of stricter OECD regulations regarding the tying of aid, while the other bilaterals to a great extent simply ignored the issue and the guidelines. It may be that the bilaterals will react similarly to the new OECD rules. Alternatively, informal tying mechanisms could be employed more frequently or, as occurred after the 1990 revision of OECD rules, for some countries the bilaterals may be willing to increase their concessionality to the new, higher levels demanded by the OECD, so that they will still be able to enjoy the trade leverage engendered by assistance to those developing countries.

F. **THE MULTILATERAL MODEL**

1. Trade Leverage

As multilateral organizations with mandates to serve all of their member countries, the World Bank and the regional development banks do not explicitly or implicitly seek to gain trade leverage for any of their contributor countries.

2. OMB Requirements

a. Risk Management Procedures

Of all the financial institutions reviewed, the World Bank has the most extensive risk management program. While the regional development banks appear to have just begun to develop risk management programs, the World Bank's program was established about 20 years ago after an exhaustive review of various private and public systems for managing risk. The Bank's process for analyzing risk is broken down into two parts: short-term analysis and long-term analysis. The short-term analysis involves looking at a checklist of statistics, which are closely correlated with economic performance of a country. The long-term analysis involves a combination of structural analysis and a statistical checklist; this process entails a very detailed analysis of each sector of the economy and its relation to the general economic situation in the country. The Bank maintains a large and experienced staff to operate the system. This process enables the Bank to predict problems in a country anywhere from 6 to 12 months before a problem occurs.

The Bank also maintains a permanent reserve of about 10 percent to guard against its largest borrower defaulting on a loan. Until 1980, the Bank had had no defaults on its loans; in the 1980s, thirteen countries defaulted on their loans. The Bank now makes an annual assessment of possible loan losses from countries that have already defaulted and countries that might default in the future. In the last couple of years, the Bank has been reserving for about 2.5% of its portfolio.

b. Concessional Interest Rates

The World Bank and the regional development banks, as mentioned earlier, lend primarily on market terms. Exceptions to this rule are made only for the least developed countries, which are offered concessional rates.

3. Subsidy Estimates

The OMB credit and country subsidy calculation of the World Bank's loans would be 18%.³ This is significantly larger than its reserve amounts and its historical loan loss record. Given this (low) loss record, OMB would probably permit the World Bank to use an alternative method for deriving its subsidy calculation, namely a method based on its track record.

4. Leverage

From a legal standpoint, the World Bank cannot lend more than its pledged capital. This means that the legal leverage for the Bank is 1 to 1. However, only seven percent of the pledged capital is actually paid in. While the pledged capital acts like a cost-free line of credit, the actual financial leverage is from its paid-in capital. It is against the paid-in capital that banks borrow to increase their leverage. As of 1990, the World Bank paid-in capital was \$9.5 billion; it had \$143 billion in outstanding loans. Therefore, its financial leverage ratio was 1:15.

5. OECD Compliance

The World Bank's and the regional development banks' adherence to market rates of interest avoids any complications with OECD guidelines.

G. THE PRIVATE SECTOR MODEL

1. Trade Leverage

Like the World Bank and the regional development banks, the IFC and the IIC do not intend for their projects to result in trade benefits for any given countries. OPIC, as a bilateral agency, does have a business mandate as well as a development mandate. OPIC estimates that the trade benefits from its 1990 projects (worth \$7,082 million) totalled \$2,145 million. Of this amount, an estimated \$961 million was directed toward initial procurement, with an expected \$1,184 million in operational procurement to follow. This breakdown of trade benefits, with greater benefits anticipated to follow in later years, reemphasizes a concept that underlies the bilateral

³This figure is for the World Bank only. The subsidy calculation for the International Development Association is 34%; IDA and the World Bank's combined subsidy calculation is 22%.

approach to financing capital projects -- that a project's follow-on procurement can be as important as a project's initial procurement.

2. OMB Requirements

a. Risk Management Procedures

At the IFC, each loan is scrutinized very carefully. On average, each loan officer will carry out 3 to 4 projects appraisals a year; the average length of time for approval is 6 to 8 months. The risk management procedures for the IFC and IIC are the area in which they differ the most. The IFC does risk management, for lack of a better term, the "old-fashioned way." It monitors each investment every six months to determine how likely the investment is to pay back. Investments are placed in one of three categories: (i) "OK"; (ii) should be watched, or (iii) in default. The risk management section of the IFC works with the investment officers to monitor and follow-up on investments. The amount the IFC takes for specific loan losses during the year is a product of its assessment of the amount of funds which will not be received during that year. While this process appears to be very staff-intensive, it is simplified by the fact that most of the loans fall into category one, "OK", and do not require extensive monitoring.

The IFC maintains a permanent reserve of about 9 percent as a cushion against the possibility of its largest borrowing country defaulting, as well as other defaults. This reserve is supplemented each year out of income. Furthermore, each year an estimate is made of losses from investments either in default or in danger of going into default. In 1991, the IFC had \$207 million worth of investments in default which represented about 6% of total investments outstanding at the beginning of the year. However, this may not all be losses since some of the funds in default may later be recovered (nevertheless, the present value of such recovered funds is likely to be small).

The IIC has adopted a much more quantitative approach to risk management. Every time a loan is made, the investment officer is required to calculate a risk rating based on a checklist. In the checklist there are 20 categories and numerous additional sub-categories about the country, the firm and the market; each category is given a ranking from 1 to 10 and is weighted. The two most important factors in the risk calculation are the sponsor and the project cash flow; the country rankings count for 20 percent of risk calculation.

IIC's objective is to fund investments with average ratings of 3 to 6. Investments below 3 are deemed too good and should be done by the private sector, and those above 6 are considered too risky. While the process is very methodical, it is not always easy to rate the various categories

and sub-categories in such detail. The objectives are for the portfolio to have an average rating between 3 and 6 and to establish reserves for the average rating. In its first year, the IIC established reserves of about 7 percent for its investments.⁴

b. Concessional Interest Rates

IFC, IIC and OPIC offer funds only on market terms.

3. Subsidy Estimates

The estimated total subsidy calculation for IFC's portfolio of 1991 investments is 17%. This includes 23% for credit risk plus negative 5% for the interest rate subsidy. (It is possible to have a negative interest rate subsidy because the IFC charges interest rate fees above the its cost of borrowing.) What is most striking is how much higher this number is than the reserves the IFC actually takes. This is somewhat mitigated by the fact that IFC also has an equity base on which to fall. However, the OMB subsidy calculation is also higher than the IFC's historical default rate. As it probably would for the World Bank, OMB would probably allow IFC to use the alternative method for calculating its subsidy (i.e. the method based on its track record). This situation -- subsidy estimates (based on OMB methodology) which are higher than actual reserves -- is also true for U.S. government entities such as OPIC and A.I.D.'s Private Sector Investment Program, again because they are allowed to make their subsidy estimates on the basis of their track records.

4. Leverage

Both the IFC and IIC are funded from equity and borrowings. Total equity is a combination of paid in equity contributions of member countries and retained earnings. The IFC has \$1.1 billion in paid-in capital and \$1 billion of retained earnings for a total of \$2.1 billion of equity capital. Against this, the IFC borrows in the capital markets; as of 1991, the IFC had borrowed an additional \$4.5 billion. The IFC's total assets are \$6.1 billion and total outstanding investments are \$4.2 billion. Therefore, the IFC has leveraged its paid-in capital of \$1.1 billion into total assets at a ratio of 1.0:5.5 and into total loans at a ratio of 1.0:3.8. In 1991, the IFC intends to increase its paid in capital by \$1 billion which will allow it to greatly expand its base of investing. The financial leverage of the IIC is considerably lower because it cannot borrow more than its paid in capital. Paid-in capital for IIC is \$200 million. This means that it can leverage its capital at a 1:2 for assets.

⁴ The portfolio of both the IFC and IIC is made up of both equity and debt. In both cases, they rate the equity as being a higher risk than debt, and they reserve greater amounts for the equity. The reserve amounts stated in these institutions' annual reports are averages of debt and equity; the reserve amounts for debt will actually be less than the stated averages.

Since the accounting of both the IFC and IIC is different than the accounting of a U.S. government entity, it is difficult to compare their financial leverage with that of other institutions. Perhaps a better comparison with the subsidy estimate concept is how they leverage their default and reserve amounts. The IFC keeps a permanent reserve of about 10 percent, which means that it leverages these funds at a ratio of 1:10. Since equity risks are included in this reserve amount, the actual leverage is even higher. The IIC leverages its reserve amounts at about the same level.

5. OECD Compliance

All investments are made at market rates; hence the OECD guidelines are not relevant for the types of loans made by these institutions.

* * *

The chart on the next page summarizes the information in Part II. As the chart indicates, the different approaches achieve different A.I.D. objectives. For instance, while all approaches support economic development, only the bilateral approach creates trade leverage for its respective countries. On the other hand, the multilateral and private sector approaches fare favorably with regard to other A.I.D. criteria. The next chapter will identify the key difference between these two approaches and discuss this difference in light of trends in thinking regarding capital projects development.

**CHART 4 -- THE BILATERAL, MULTILATERAL, AND PRIVATE SECTOR APPROACHES:
An Evaluation Using A.I.D.'s Objectives and Criteria**

Does the Approach Below Achieve or Entail:	A.I.D. OBJECTIVES		A.I.D. CRITERIA				
	Economic & Social Development	Trade Leverage?	Credible Risk Management?	Market Interest Rates?	Acceptable Subsidies?	Financial Leverage?	OECD Compliance?
BILATERAL	YES	YES	?	NO	NO	NO	?
MULTILATERAL	YES	N/A	YES ¹	YES ²	YES	YES	N/A
PRIVATE SECTOR	YES	YES ³ & N/A	YES	YES	YES	YES	N/A

Notes: N/A means not applicable.

1 This response refers only to the World Bank; may not apply to the regional development banks.

2 Except for the poorest countries, which may receive concessional rates.

3 Yes for OPIC; N/A for IFC and IIC.

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CHAPTER V

TRENDS IN CAPITAL PROJECTS

As Chapter IV indicates, the multilateral and private sector approaches achieve several A.I.D. objectives and criteria; trade leverage -- which the bilateral approach generates -- represents a crucial exception. However, despite achieving similar objectives and criteria, the multilateral and private sector approaches are in fact very different. In order to continue the process of evaluating each approach as a precursor to developing a potential A.I.D. approach to capital projects, it is necessary to define the key difference between the multilateral and private sector approaches to capital projects. As implied in Chapter III's overall descriptions of the three approaches, this difference is the fact that the World Bank, the regional development banks, and export credit agencies work primarily with sovereign entities while the IFC, IIC and OPIC work exclusively with private parties.

This distinction is crucial to A.I.D.: it is the remaining (and perhaps the most restrictive) filter that A.I.D. will use in deciding which capital projects to fund. This chapter will briefly outline the rationale behind A.I.D.'s preference for private sector capital projects, and then discuss the implications of this preference in light of recent trends in capital projects.

A. A.I.D. AND PRIVATE SECTOR CAPITAL PROJECTS

For two reasons, the Agency for International Development is extremely reluctant to extend direct loans and loan guarantees for capital projects to the governments of developing countries. These reasons include past experience with sovereign borrowers and changes within A.I.D.

1. Past Experience with Sovereign Borrowers

In the 1970's, dramatic increases in oil prices and resultant excess petrodollars prompted the international banking community to eagerly extend loans to the developing world, particularly the newly industrialized countries, such as Mexico, Brazil, Argentina, Venezuela, South Korea, the Philippines, and Indonesia. Commercial banks lent in the belief that sovereign states guaranteed their loans. Capital projects were the preferred target for such loans, precisely because they attracted the sovereign guarantees commercial bankers required.¹ Moreover, capital projects by their nature are able to absorb large amounts of capital in a single transaction,

¹ As will be discussed later, both in the 1970's and today, capital projects, more than perhaps any other type of project, are often subject to government influence.

which became an important criteria in a banking system flush with petrodollars. With an excess of funds over projects, commercial banks frantically sought opportunities for lending. The need to "move the money" drove the commercial banks to minimize the importance of sound project appraisal and risk screening. The upshot? The LDC debt crisis.

The commercial banks' lending in the 1970's had repercussions beyond the banks and their borrowers. The debt crisis has resulted in U.S. government debt forgiveness programs; indeed, many of the loans A.I.D. extended for capital projects in the 1970's have since been written off as part of the Paris Club debt negotiations. Part of the legacy of the debt crisis is a strong institutional bias within A.I.D. against terms of assistance which might exacerbate developing countries' debt burden, as would be the case with sovereign loans and loan guarantees for capital projects. Accordingly, A.I.D. has specified that the emphasis of the proposed Capital Projects Fund will be non-recourse financed capital projects that promise to be financially sustainable and in which the creditors look to project earnings, rather than only sovereign credit-worthiness, for security. Because such projects will be sponsored primarily by private sector entities, A.I.D. aims to maximize the number of private projects it finances, as opposed to sovereign projects.

2. Changes in A.I.D. Focus

As detailed in Chapter II, A.I.D. has undergone a fundamental change in philosophy since its early involvement with public sector capital projects in the 1960's and 1970's. This change necessarily affects all new programs, such as the Capital Projects Fund. Specifically, since the early 1980's, A.I.D. has focused increasingly on developing and fostering developing countries' private sectors. More recently, through such mechanisms as the Business and Development Partnership Initiative, A.I.D. has begun to seek links with the U.S. private sector. Consequently, renewed A.I.D. involvement in capital projects will not represent a return to the operations and practices of the 1960's and 1970's but instead will reflect the Agency's commitment to and conviction in private sector involvement in all facets of development, including key areas such as capital projects.

B. SOVEREIGN VERSUS NON-SOVEREIGN CAPITAL PROJECTS: CURRENT SITUATION AND TRENDS

Sovereign-sponsored projects have traditionally been the norm in developing as well as the developed countries. However, A.I.D.'s preference for private sector involvement in this area reflects recent trends in the development of capital projects. This section will examine the theoretical arguments for public sector involvement with capital projects, reasons such theories are now less valid, and the subsequent trend toward some degree of private sector involvement.

1. Sovereign Capital Projects

a. Arguments for Sovereign Involvement

Investment in infrastructure is usually a public sector responsibility in the developing world. For a host of reasons, governments in virtually all developing countries are the developers, the owners and the operators of the countries' major capital project initiatives. One of the key arguments justifying state ownership of utilities (the product of capital projects) is that such entities inherently tend toward natural monopolies. The heart of this argument is that the fixed capital costs of infrastructure projects are so high that it is often economic to have only one operator provide for the market. Historically, this has been true in the case of power and telecommunications systems, where there has been a need for substantial economies of scale in order to operate efficiently. While still valid in many cases, the natural monopoly argument has been eroded in some sectors; for instance, in recent years technological advances have rapidly reduced the cost of producing and installing the equipment required for power and telecommunications systems.

Another factor justifying state ownership and control of capital projects is the need to provide universal access to the benefits of infrastructure. Governments are concerned that access to power, telecommunications, transportation and other services be provided not only to urban areas, where the opportunities for commercial ventures may be quite promising, but also to rural areas, where the profits may be low or non-existent. Many argue that state ownership and control encourage and facilitate widespread service. In the telecommunications sector, for example, most industrialized countries have considered privatizing their systems only when universal service has been attained.

b. Erosion of these Arguments

Despite the theoretical rationale for state involvement in infrastructure development, in practice the governments of most developing countries have been unable to provide adequate and reliable services -- be it in urban or rural areas. Power shortages are a ubiquitous problem in developing countries, and as the demand for power continues to escalate, the strain on weak and inefficient power systems grows ever more severe. Telecommunications systems are equally strained. In some developing countries, including Argentina, Egypt, Ghana and Jamaica, new subscribers must wait at least twenty years to have a new telephone line installed; new subscribers in Pakistan, Poland and Tanzania face at least a ten year waiting list. Moreover, existing networks are unreliable and inadequate: call completion rates for international calls are as low as 13 percent in Ghana and Pakistan; completion rates for local calls are less than 33 percent in Indonesia (International Finance Corporation, 1990, p. 13).

The inability of governments to build adequate infrastructure in their respective countries is due to many factors. As noted by James Sullivan of A.I.D.'s Office of Energy, "inefficiency, subsidized electricity prices, poor management and undue political influence over technical and financial decisionmaking are producing a financial crisis in developing country utilities" (Annual

Review of Energy, 1990, p. 335). Many developing country governments lack the technical and managerial resources needed to keep up increasingly complex technologies, particularly in the areas of telecommunications, power and the environment. Moreover, they lack the financial resources needed to maintain their existing infrastructure, much less to build new infrastructure projects. Limited fiscal resources, as well as limited borrowing capacity, will continue to constrain developing countries' abilities to make the necessary investments in infrastructure to keep pace with the growing needs of their economies.

2. Trends Toward Private Sector Involvement in Capital Projects

This inability to provide the infrastructure necessary for economic and social growth has provoked revised thinking regarding the arguments posited above. As developing country governments reassess their strategies for investing in infrastructure, they increasingly look toward opportunities for private sector participation in infrastructure development. Some of the perceived benefits of private sector participation are (i) a reduced burden on public sector resources, including managerial, technical and financial resources; (ii) greater efficiency and innovation in the identification, construction, and operation of capital project facilities; and (iii) reduced public sector borrowing and risk.

While recognizing the benefits of private sector investment in infrastructure, it is also important to recognize some of the constraints. Most importantly, as the government reduces its role as owner and operator of public utilities, it must also expand its role as regulator. Few developing countries have established the types of regulatory systems needed to ensure effective public-private collaboration on infrastructure development. In addition, few private investors in infrastructure are willing to bear the risks that they may accept in other sectors. Infrastructure remains highly vulnerable to government influence; for instance, governments affect private sector investments and returns both directly, through rate structures, and indirectly, through macroeconomic policies (since utility fees are generally paid in local currencies). This lingering influence and control often prompt private investors to require a higher return on their capital than most governments find acceptable.

The role of the private sector in capital projects remains embryonic. However, a number of opportunities are beginning to emerge, particularly in power, telecommunications, and the environment. The first round of successful models have been established in these sectors, offering the opportunity for replication and adaption in other countries. In establishing the Capital Projects Fund, A.I.D. must explore the opportunities for expanding the role of the private sector in capital projects in developing countries -- not only to meet its internal requirements for non-sovereign lending, but also in recognition of developing countries' growing need to diminish the role of the state and increase private sector participation in infrastructure development. The following section explores potential mechanisms for private sector involvement.

3. Options for Private Sector Involvement

Although the prospects for private sector involvement in capital projects are considerable, the obstacles to their fruition are also substantial. Focusing on power, telecommunications, and (to some extent) the environment (the three sectors identified by the team as having the greatest potential for private sector involvement), this section will outline obstacles for and examples of four mechanisms for private sector involvement: privatization; BOT's and variants; installation, maintenance and construction of systems (including specialized and localized systems); and other public-private partnerships (including concessions and overlay systems).

a. Privatization

Obstacles

Successful privatization requires a number of pre-existing conditions. The most general pre-condition is political stamina. During privatization efforts, governments face strong pressure from labor unions (which want to prevent job losses in generally highly over-staffed public utilities) and from the general public (which resents the higher rates that private providers usually charge). A more specific pre-cursor to privatization is the financial circumstances of the given entity. As Sullivan notes, "efforts to totally privatize a company in relatively poor financial condition may not be possible since assets may be in severely deteriorated conditions, prices may not cover capital and operating costs, and operations may not be efficient. Chile, for example, had to invest significant amounts of government equity into its publicly-owned utilities to make them attractive to private investors" ("Alternative Forms of Private Participation: Traditional and New Models", 1991, p. 6.).

Moreover, privatization necessitates a willingness to change legislation and agreements that may be deep-rooted and popular. This requisite regulatory reform may be politically difficult, substantial ... and time-consuming. William W. Ambrose, et. al., cite the following examples of necessary reforms: drafting and passage of new laws allowing private ownership; new regulations to protect national security and other state interests; and revised labor and wage laws (or agreements) in order to transform an (often highly paid) government civil service into a private sector workforce ("Privatizing Telecommunications Systems: Business Opportunities in Developing Countries, 1990, p. 16).

Actual and Potential Privatizations

Despite the serious obstacles cited above, privatizations of infrastructure facilities have occurred. For example, Chile has privatized both its electricity and telecommunications companies, while Argentina's, Brazil's, Mexico's and Jamaica's telecommunications entities are now private corporations, as are telecommunications facilities in many of the smaller countries of the

Caribbean and West Africa. Other privatizations are being considered (with various degrees of seriousness), including the Dominican Republic's and Argentina's electric utility services, and telecommunications systems in various Eastern European countries, Bangladesh, Malaysia, Pakistan, and Venezuela.

b. *BOT's and Variants of BOT's*²

Obstacles

Like privatization, the Build-Operate-Transfer (BOT) mechanism and variations on BOT's require certain pre-conditions for success. BOT's are legally and financially complex, resulting in many risks for the parties involved. Allocation of this risk and compensation for assuming given portions of risk immensely complicates and lengthens the process. Moreover, in addition to the substantial regulatory and legislative reforms mentioned above with regard to privatization, BOT's require a sophisticated and established legal system that can assure investors that the agreement will be honored. Sufficiently developed banking systems and financial markets are also pre-cursors to successful BOT's, since these programs usually entail some local participation. Finally, host country political stability is necessary for BOT's, both in and of itself, and because such stability or instability affects the country's credit rating.

*Actual and Potential BOT's (and BOT variants)*³

A number of BOT's have been successfully negotiated and are now being implemented. One of these is a variation of the BOT approach, under which private investors financed and built six power units in Mexico ... but the Mexican Comisión Federal de Electricidad (the national utility) retains operational control. CFE will gain title to the plants within ten to fifteen years. Built under a BOOT scheme between Hopewell Power, Ltd. and the Shenzhen Special Economic Zone, two coal-fired power plants have provided power in China's Guangdong province since 1987. Roads and bridges have been an area of considerable success for BOT's, with four projects completed or under construction in Malaysia and two projects in Hong Kong.

BOT's (and variants) have also been completed in the area of the environment, with varying degrees of success. For example, Hong Kong and a private firm reached a BOOT agreement for construction and operation of a municipal solid waste transfer station and fleet of transfer trucks; this station is now operational. Less satisfactory was a BOO venture for a composting facility in Surabaya, Indonesia. This operation provided sub-optimal quality, used inappropriate

² Some of the more common variations on the Build-Operate-Transfer mechanism include the Build-Own-Operate (BOO) model and the Build-Own-Operate-Transfer (BOOT) model. Please see Annex 4 for a more comprehensive discussion of BOT's and BOT variants.

³ The information in this section is intended to be illustrative, not comprehensive.

technology and contained inadequate financial incentives for the firm; it is no longer operating. Nevertheless, other BOT projects are in the process of receiving bids. For instance, Jamaica has requested proposals to build a low speed diesel power plant on a BOO basis; Indonesia has issued or reissued invitations for two BOO power projects; and Thailand has announced that intends to use the BOT mechanism for a \$5 billion investment in its telephone organization.

c. *Installation, Maintenance and Construction of Specialized or Localized Systems*

Obstacles

As a less far-reaching approach than, for instance, privatization, construction of private facilities in specific localities or for particular market niches generally has fewer obstacles and therefore can be completed more rapidly. Factors noted earlier -- such as opposition by civil servants, lack of investment funds, and the need for regulatory changes -- also impede this approach, but to a lesser degree because the projects are smaller in scope.

Actual and Potential Projects

In the Philippines, the Northern Mini Hydro Corporation plans to build a series of mini-hydroelectric power plants in Benguet Province. (It should be noted that this project takes place after the National Power Corporation, under executive order from President Corazon Aquino, drafted rules and regulations for private sector involvement of the national electrical utility, i.e., one of the obstacles to private projects, appropriate regulations, had already been removed.) In telecommunications, these specialized projects often take the form of cellular systems. Regional or municipal cellular communications projects have been awarded or begun in Mexico, Argentina, Hungary, Czechoslovakia, Malaysia, Costa Rica, Chile, Indonesia, Pakistan, Sri Lanka, and Thailand. Satellite networks are also in demand, with private sector involvement taking place in Thailand, Argentina, Chile and India.

For environmental services, this approach generally consists of two activities -- construction (usually called build and sell for waste management services) and maintenance. Overall, the build and sell approach to establishing private waste management facilities has a poor track record. In Sandra Cointreau-Levine's words, these "arrangements have led to costly facilities which serve as little more than urban sculpture -- impressive structures which cannot and do not function" ("Privatization of Municipal Solid Waste Services in Developing Countries", 1991, p. 21) Examples of such "urban sculptures" include a refuse-derived fuel plant in Seoul, Korea, a composting plant in Lagos, Nigeria, and an incinerator in Surabaya, Indonesia. However, private maintenance and repair companies have potential, particularly for solid waste collection equipment (mainly trucks).

d. Other Public-Private Partnerships

Description and Obstacles

The potential also exists for privately-developed capital projects to contribute to existing public networks. For instance, with respect to power generation, private stand-alone facilities can be connected to and sell to a national grid, or private companies can operate and maintain power facilities. Likewise, for telecommunications, private firms can develop digital overlay systems (systems which provide additional service, usually between major cities or between business entrepots, but operate in parallel with existing public networks). Such public-private partnerships generally face fewer impediments than more comprehensive private sector involvement; however, private companies may encounter difficulties with the technical compatibility of private and public facilities. In environmental services, several other possibilities for private participation exist, including contracts, franchises and concessions. These mechanisms may prove easier to implement because private firms face lower barriers to entry and more moderate investment costs (mainly because the area served is smaller and more contained).

Actual and Potential Projects

Such private-public partnerships have occurred in the energy sector. For instance, the government of the Côte d'Ivoire recently contracted the Société Internationale de Services Publiques (a French company) to assume (through its subsidiary, the Compagnie Ivoirienne d'Electricité) operations of the national electric utility's power stations. Similarly, Panama's Instituto de Recursos Hidráulicos y Electrificación (the state-owned utility) has issued solicitations for the lease, rehabilitation and operation of a diesel and steam generating facility. In Costa Rica, the (private) El Viejo Sugar Cane Mill sells 5.5 megawatts of power to Costa Rica's national utility under a renewable ten-year contract. In telecommunications, Czechoslovakia has suggested that its joint venture with Bell Atlantic and U.S. West (to develop a cellular network) may eventually broaden to encompass a digital overlay system. In municipal waste collection, the cities of Bangkok, Buenos Aires, Caracas and Jakarta have contracted with independent private companies for collection of waste for certain city sub-districts; the city of Lagos has awarded franchises for industrial waste collection.

* * *

As this chapter indicates, private sector opportunities in capital projects are beginning to emerge. However, it is important to recognize that many of the recent developments in private sector capital projects are taking place in countries where A.I.D. does little or no work. Moreover, while all of these capital projects are the type which A.I.D. might potentially pursue, it should be re-emphasized that most projects that involve the private sector (such as those undertaken through entities of the private sector approach) are not the type of capital projects which A.I.D. wishes to pursue; they are most often in sectors such as manufacturing, mining, and tourism.

These cautions are not meant to dissuade a private sector-focused A.I.D. Capital Projects Fund. However, they are important to note because they have significant implications for this strategy: in other words, a smaller number of projects from which to choose and a narrower geographical scope. This background, in conjunction with A.I.D.'s stated preference for private sector-sponsored capital projects, implies that A.I.D. should seek opportunities for private sector involvement in capital projects and should facilitate this process wherever possible; but that within the Capital Projects Fund, it should also consider leaving open the possibilities for both public and private sector involvement.

CHAPTER VI

OPTIONS FOR USING CREDIT AUTHORITY FOR THE A.I.D. CAPITAL PROJECTS FUND

A.I.D.'s request to add credit authority to the Capital Projects Fund will be examined carefully by Congress and the Office of Management and Budget. Their decision to grant credit authority to A.I.D. will depend, in large part, on how A.I.D. intends to use the credit authority, and most importantly, how A.I.D. intends to manage the credit authority.

Based on the analysis presented in this study, the team recommends that A.I.D. consider two scenarios for the use of its credit authority. The first scenario is modeled upon the approach of the other major bilateral donors, the key difference being that A.I.D. would seek out opportunities for working with private sector entities more aggressively than the other bilateral agencies. However, in recognition of the fact that most capital projects remain in the domain of the public sector, the public/private split would be roughly 75:25. The second scenario is modeled upon the private sector approach; in this scenario, all projects would be sponsored by private sector entities.

These two scenarios entail very different approaches to financing capital projects. The portfolios would look significantly different from one another, and the implications for management and staffing would vary considerably. The team felt it was important to outline two scenarios for several reasons:

- ◆ A.I.D. has a strong preference for using its credit authority to lend to private sector projects. Through past experience, A.I.D. has found that sovereign lending has not always provided the right financial signals to ensure that projects are properly financed and managed. Indeed, many of the projects A.I.D. financed in the past are now being written off as part of the LDC debt negotiations.
- ◆ Opportunities for private participation in capital projects are beginning to emerge in developing countries. As described in the previous chapter, developing country governments are increasingly seeking private participation in the ownership, financing, and operation of capital projects. Institutions like the Agency for International Development can and should play an important role in strengthening the role of the private sector in infrastructure development.
- ◆ At this time, however, the role of the private sector in capital projects is embryonic. There are prospects for private sector projects, but few transactions have actually closed. Capital projects remain in the domain of the public sector in most developing countries.

- ◆ Should A.I.D. choose to finance only private sector projects, the pool of potential projects to be considered for finance would be relatively small, particularly in the early years. A.I.D. would therefore have few alternatives for diversifying its risks over a number of projects, a consideration which will be important to OMB.
- ◆ Limiting the portfolio to private sector projects would also close out opportunities for the U.S. business community. All of the other major donors finance primarily public sector projects, which generate important trade and investment opportunities for their domestic business communities. The American firms interviewed by the team believe that the Capital Projects Fund should finance both public and private sector projects, in recognition of the fact that most projects in developing countries are still government-sponsored. They note that the Fund should have the option to finance private sector projects, but that many opportunities would be eliminated if the Fund financed only private sector projects.

Taking these considerations into account, this chapter explores two scenarios for the use of A.I.D.'s credit authority: one which is oriented primarily to public sector projects, but allows for and encourages A.I.D. to seek out private sector opportunities, and a second scenario, which allows for lending to only private sector projects. The chapter begins by examining the key characteristics of the portfolio under each scenario. The second section of the chapter explores their implications for credit and risk management, and the third section explores organizational considerations, including staffing and administrative costs.

A. KEY CHARACTERISTICS OF THE PORTFOLIO

For each of the two approaches, this report will examine six key characteristics of the portfolio. These include the following factors: the project sponsors; the types of projects to be considered for finance by A.I.D.; the dimensions of the portfolio, including the expected amount of new lending on an annual basis; countries of assistance; project partners; and terms of assistance.

1. Model 1: Public-Private Lending

The first scenario is modeled upon the approaches of the other major donors. The key advantage of the approach of the other major bilateral agencies is that they do link developmental and business objectives through their capital projects programs. Programs are designed to generate economic benefits for not only the developing country, but for the donor country as well. This is clearly an objective of the A.I.D. Capital Projects Fund too.

However, there also several important variations to the bilateral programs proposed in this model. First and foremost would be the emphasis placed on creating opportunities for private sector participation in the ownership, management and financing of capital projects in developing countries. Nearly all of the lending of the other bilateral institutions is devoted to sovereign entities. For example, a mere 0.7 percent of the 1990 commitments of the Japanese

development loan agency was allocated to private entities. The French development loan agency allocated 14 percent of its annual commitments to private entities in 1990 (not all of which were capital projects). The KfW, the German development loan agency, works exclusively with sovereign borrowers in developing countries. Hence, setting a target of 25 percent for private sector lending within the Capital Projects Fund would represent a significant departure from the approach of other bilateral institutions.

a. Project Sponsors

Under this model, approximately 75 percent of A.I.D.'s credit authority would be devoted to public sector projects; the remaining 25 percent would be devoted to private sector projects. These numbers are not intended to be rigid, and actual percentages would depend on the quality of the projects proposed for financing -- both from a developmental perspective, as well as a U.S. business perspective. The 75/25 split reflects the fact that most capital projects are still sponsored by public sector entities, but that opportunities are gradually emerging for the private sector. Any larger share for the private sector would necessarily diminish the size of the Capital Projects Fund, reflecting the fact that there are still very few private sector capital projects which close in any given year.

For both public and private projects, the "quality" of the project sponsors will be a key consideration in project selection. Among the many factors to be considered in assessing the quality of the project sponsors, two factors are fundamental: the ability to repay and the ability to manage and operate the project effectively.

For public sector projects, or private sector projects where there is a government guarantee, the question of creditworthiness is factored into the Country Risk Assessment System of the U.S. government. As explained in Chapter IV of this report, the CRASUS system is designed to take into account, to the extent possible, the likelihood of future risks, as well as a country's past track record. What may prove more difficult is assessing a public entity's ability to manage and operate the project; but the fact that A.I.D. has a long history of working with the host governments and knows their various strengths and weaknesses will work to its advantage in assessing the management capabilities of potential project sponsors.

b. Types of Projects

The types of projects to be financed by the Capital Projects Fund should be driven in large part by A.I.D.'s developmental and business objectives for the program. Three criteria are critical: (i) developmental need and merit; (ii) U.S. comparative advantage; and (iii) U.S. trade leverage.

As is true of all A.I.D. projects, activities proposed for funding under the Capital Projects Fund should be subjected to a rigorous development screen prior to authorization and obligation of funds. Only those projects that meet the test of being "developmentally-sound" should be considered for funding. The development requirement means that the project must contribute directly to the improvement of the country's economic and social welfare and be a cost-effective

use of available resources. Most infrastructure projects, if properly selected and designed, are developmental. It will be incumbent upon the staff of the new Capital Projects and Engineering Office to select and design capital projects that are in fact developmentally-sound.

In line with the goals of the Partnership for Business and Development, A.I.D. must not only apply its traditional development screens to select projects under the Capital Projects Fund. Of equal importance is the extent to which projects generate opportunities for U.S. businesses and strengthen U.S. economic competitiveness. A.I.D. must now ask itself a new set of questions in selecting projects. Does the United States have a comparative advantage in the project area? Will the project generate purchases of U.S. goods and services, and if so, how much? Are there opportunities for U.S. investment in the project? In sum, how can U.S. expertise and resources be used to the mutual benefit of the United States and developing countries?

A.I.D. will need to evaluate each potential project in terms of its developmental benefits, as well as its potential for U.S. business participation. However, the chart on the following page takes a first cut at identifying the types of capital projects to be financed under the Capital Projects Fund.

The opportunities for linking the infrastructure needs of developing countries and U.S. business expertise and resources are particularly strong in the following sectors: **telecommunications, energy, and the environment**. As noted in Chapter II of this report, these are areas in which (i) the lack of adequate infrastructure is a critical impediment to economic growth; (ii) the U.S. business community has a competitive advantage vis-a-vis its foreign competitors in many technologies and services; and (iii) the U.S. stands to gain major long-term trade benefits because of the technology standards set by each of these industries. These are also areas in which the private sector is playing an increasingly larger role in the ownership and operations of capital projects.

c. *Dimensions of the Portfolio*

Most of the U.S. businesses interviewed by the team believe that at least \$1 billion is necessary for A.I.D. to be a serious player in the business of capital projects financing. They note that this is the amount required to enable the fund to compete with the capital projects programs of the other major donors. While recognizing the concerns of the U.S. business community, the team recommends that A.I.D. start out with a more modest sized portfolio. As outlined in the description of Model 2, the team estimates that A.I.D. would realistically be able to provide \$100 million in finance for private sector projects in a given year. A.I.D.'s participation in each project would be approximately \$20 million in value, enabling the Agency to support an average of five new private sector projects per year. Using the ratio of 75:25, A.I.D. would be able to provide nearly \$300 million in finance for public sector projects. A.I.D.'s participation in a project would be approximately \$40 million, enabling the Agency to support an average of eight new public sector projects in a given year. The total of A.I.D.'s new commitments for each year would average \$400 million.

CHART 5: TYPES OF CAPITAL PROJECTS

<u>SECTOR</u>	<u>DEVELOPMENTAL BENEFITS</u>	<u>U.S. COMPARATIVE ADVANTAGE</u>	<u>U.S. TRADE LEVERAGE</u>
Telecommunications	High	High	High
Power/Gas/Energy	High	High	High
Environment/Pollution	High	High	High
Transport	High		
• Airports		Medium	Medium
• Mass Transit		Low	High
• Highways/Roads		Low	Low
• Ports		Low	Medium
• Railroads		Low	Medium
Irrigation	High	Low	Low
Sewer/Water	High	Low	Low
Manufacturing	Medium	Sector Specific	High
Tourism	Low	Medium	Low
Mining	Low	Medium	Medium

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It is important to recognize that these amounts will, in no measure, suffice to meet the demand for finance; for instance, as noted by Michael Kitay, the unprecedented physical and population growth of cities in less developed countries requires significant infrastructure investment in such areas as roads and water/sewerage (Land Acquisition in Developing Countries, p. xvi). A.I.D. could potentially finance many more public sector projects, and perhaps more private sector projects as increased opportunities emerge. However, in light of the fact that this is a new program which will require significantly different management and staffing, we believe that A.I.D. should start out more modestly, test its ability to use credit authority to finance capital projects, and then determine to what extent the program should be expanded.

d. Project Partners

One of the key factors which distinguishes the Capital Projects Fund from A.I.D.'s previous efforts to finance capital projects will be the role of project partners. In the early days of funding capital projects, A.I.D. was frequently the sole financier of a project. Now, A.I.D. can ill-afford to be the sole financier. It must seek out partners who can provide additional resources and expertise to promote sound capital projects in developing countries. The team recommends that A.I.D. finance no more than 50 percent of any given project, and that it aim to finance in the range of 25 percent. This will help A.I.D. to diversify its risk and maximize its ability to leverage limited resources.

Because Model 1 focuses primarily on public sector projects, A.I.D.'s partners under this scenario would include those institutions that focus on public sector projects: namely, the World Bank and the other bilateral assistance agencies. A.I.D. should also seek to work with the other U.S. government institutions to promote its business and development objectives. For public sector projects, this would include the Trade and Development Program and Eximbank. The U.S. business community would also be a key partner, in this case, primarily as an important source of goods and services for the project.

At this time, international financial institutions will probably be reluctant partners for either public or private sector capital projects in developing countries. In recent years, there have been few instances of international banks lending for capital projects, except when the bank has obtained a full guarantee from an institution such as OPIC. While A.I.D. should seek opportunities to work with the international banking community, realistically these opportunities are more likely to evolve in the medium to long-term.

e. Countries of Assistance

In theory, Model 1 gives A.I.D. the lee-way to finance capital projects in nearly all of the countries in which it operates; the fact that this model allows for both public and private sector financing opens up many possibilities for lending that would be excluded by a focus on private sector projects only.

In practice, however, the selection of countries will be driven in large part by the subsidy estimates. As outlined in Chapter IV, all countries are assigned to one of eleven risk categories ranging from A to F--. A country's risk category relates directly to the probability of it defaulting on a loan or a guarantee. Countries in the "A" category are considered the least risky, whereas countries in the "F--" category are considered the most risky. As illustrated in the table on the following page, credit subsidy percentages vary from 2.66% for direct loans to countries in the "A" category up to 63.54% for direct loans to countries in the "F" category. Guaranteed loans involve slightly lower credit subsidies in each case, as explained earlier.¹

The risk categories assigned to each country and the rating system itself are classified as "confidential." However, none of the countries in which A.I.D. operates are considered "A" countries and very few are classified as "B" countries. Given the high subsidy cost of extending loans and guarantees to risky countries, A.I.D. has two alternatives: (i) it can lend to only those countries that have a subsidy rating below 20 percent, thereby limiting itself to the countries that fall in categories B through D, or (ii) it can offset investments in high-risk countries with investments in low-risk countries, thereby allowing itself to expand the program to more of the countries in which it traditionally operates. In either case, because of the high cost of lending to countries in the F category, A.I.D. may wish to consider these countries eligible for grant funding only.

f. Terms of Assistance

The terms of assistance that A.I.D. offers under the Capital Projects Fund are guided by three considerations: the LDC debt crisis, the OECD guidelines, and the opinions of the U.S. business community. As noted above, A.I.D. may wish to designate countries which CRASUS deems very risky as eligible only for grant funding. Because A.I.D. does not want to exacerbate the debt situation of developing countries, it may also wish to ease its terms (by using concessional finance, rather than hard credit terms) for IDA-eligible countries. As discussed in Chapter IV, concessional finance increases the subsidy calculation. However, since many A.I.D.-assisted countries in the D, E and F categories are eligible for IDA assistance and since A.I.D. does not wish to impose terms more onerous than IDA's, A.I.D. would have to use concessional finance for any public sector capital projects in those countries. In countries classified as D or E that receive financing on World Bank (not IDA) terms, A.I.D. could use market rates for public sector as well as private sector capital projects.

A.I.D.'s desire to adhere to the OECD guidelines also will determine when and how it can use concessional finance to promote its business and development objectives. However, the cost of providing concessional finance is another important consideration. As explained in Chapter IV,

¹ OMB actually sub-divides sovereign risk into eleven categories. For purposes of illustration, we have used six sovereign risk categories.

an interest rate buy-down of one-percentage point from the benchmark Treasury interest rate adds 7.6% to the subsidy calculation; a two-percentage point buy-down adds 15% to the subsidy calculation; and a four-percentage point buy-down adds nearly 30% to the subsidy calculation.

On the other hand, the U.S. business community strongly believes that the Capital Projects Fund should provide concessional financing. The businesses interviewed by the team note that all of our OECD competitors provide concessional financing, and many developing countries expect concessional financing. In certain spoiled markets, donors must provide concessional financing in order to compete. In light of the new OECD rules for tied aid financing, however, our "competitors" may not be able to use concessional finance as they did in the past to secure new business in developing countries ... or at least that is the intent behind the new rules. In practice, it is not clear to what extent our competitors will adhere to the new OECD guidelines for tied financing; alternatively, they may legally "untie" their assistance, but resort to using informal mechanisms as a means of promoting business objectives.

A.I.D.'s reaction to the situation described by the U.S. business community must be tempered by the facts that, clearly, in order to stay within the OECD guidelines and to stay within an overall subsidy estimate of not more than 20 percent, A.I.D. must use concessional finance very judiciously. The team recommends that A.I.D. leave itself the option to use concessional finance for public sector capital projects; however, its use must be carefully considered on a case-by-case basis.

2. Model 2: The Private Sector Approach

a. Project Sponsors

In Model 2, the project sponsors would be private sector entities. A.I.D. should seek to support projects in which the sponsors are either U.S. firms and/or local private sector investors.

b. Types of Projects

Traditionally, private sector investment in capital projects has been primarily in areas such as mining, manufacturing and tourism. A large portion of the capital development projects financed by the IFC, the IIC and OPIC fall into these categories. However, because of its strong developmental perspective, A.I.D. is less inclined to invest in these sectors.

The sectors which hold particular promise for U.S. private sector involvement are: **telecommunications, energy, and the environment.** As noted previously, these are also areas in which the U.S. business community holds a comparative advantage and which have the potential for generating substantial trade benefits. The types of projects emerging in each of these sectors has been explored extensively in the previous chapter. However, the description of the Hopewell Power Project on the following page helps to illustrate the type of project might consider financing through the Capital Projects Fund.

c. Dimensions of the Portfolio

The team estimates that A.I.D. will be able to finance approximately \$100 million in private sector capital projects each year. To determine the estimated size of the portfolio, the team examined the total lending for private sector projects of the other key bilateral and multilateral institutions, and then subtracted all projects that would not be eligible for funding under the Capital Projects Fund. (This included all activities that were not capital projects, as well as all capital projects in sectors that not priorities for financing under the Capital Projects Fund, such as mining, manufacturing and tourism). The remaining amount -- the total amount of funding for A.I.D. eligible private sector capital projects -- was roughly \$800 million. We believe that A.I.D. will be able to finance slightly more than 10 percent of this total lending, or about \$100 million.

This amount should be considered a goal for the early years of the initiative. As mentioned in the description of Model 1, the team believes that A.I.D. should initially set relatively modest objectives for the size of its portfolio. As it gains experience in lending to capital projects, A.I.D. may wish to consider expanding the size of its portfolio. In addition, more opportunities for private sector projects are likely to emerge over time; supporting this trend may warrant expanding A.I.D.'s portfolio in the future.

The size of private sector projects are likely to be smaller than traditional public sector infrastructure projects. The need to find investors to provide equity for large projects will necessarily limit their size. In addition, smaller projects are less likely to be threats to national authorities who are the traditional providers of infrastructure. The team estimates that A.I.D.'s participation in each private sector project would average \$20 million, enabling the Agency to support five new projects per year.

d. Project Partners

The main partners will be U.S. and foreign private businesses, export-import banks such as the Eximbank, bilateral investment companies such as OPIC, multilateral investment companies such as the IFC, and commercial international banks. Again, in order to diversify risk and maximize A.I.D.'s ability to leverage limited resources, the team recommends that A.I.D. finance no more than 50 percent of any given project, and that it aim to finance in the range of 25 to 30 percent.

THE HOPEWELL POWER PROJECT IN THE PHILIPPINES

The Hopewell Power Project is a \$42 million project to build a 200 MW gas turbine outside Manila. Hopewell is a private business located in Hong Kong. Nonetheless, the biggest trade benefactor of this project was actually the United States. The project was built with used turbines, which were bought in Colorado.

The Philippines project was built on a "Build-Operate-Transfer" basis. According to the project sponsor, negotiations were protracted. However, in the end, Hopewell signed an agreement to build and operate the power facility for 12 years; the Luzon National Power Company agreed to purchase the power generated by the project facility during this period. At the end of the twelve-year period, the facility will be transferred to the Luzon Power Company at no cost.

The project has been granted a five year tax holiday and a waiver on import duties. The Luzon National Power Company pay a monthly fixed fee to the project. In addition, the national government is providing a total performance guarantee on the Luzon National Power Company; in other words, should Luzon National Power Company not pay its monthly fixed fee, the Philippine government will pay. All payments from Luzon to Hopewell are made in dollars to an offshore account.

Funding for the Hopewell Project came from seven sources. Of the \$11 million in equity, Hopewell provided \$6.5 million; Citicorp, who arranged the financing, provided \$2.1 million; and the Asian Development Bank and the International Finance Corporation each provided \$1.1 million. Of the \$30 million in debt financing, the Asian Development Bank and the International Finance Corporation provided \$20 million. International private banks "in complementary financing with the Asian Development Bank" provided the remaining finance. While it is not clear exactly what is meant by "complementary financing", we believe that banks are participating through an Asian Development Bank syndication or guarantee.

This example illustrates several important points. First and foremost, it demonstrates that traditional infrastructure projects can be launched via the private sector. However, it also demonstrates the critical role of the host government in making these transactions come to fruition. In this case, the government of the Philippines is playing a key role in assuming all of the currency risk for the project and guaranteeing the performance of the local utility. Moreover, it has allowed the project sponsors to receive all payments in offshore accounts, thereby completely avoiding the local banking sector. The Hopewell example also demonstrates that private companies are willing to provide equity for infrastructure projects. The main sources of debt financing for private sector projects are likely to be the development finance institutions. Private banks may also participate, but probably only with some sort of "cover" provided by the development banks or development finance institutions.

e. Countries of Assistance

In theory these types of projects can be done in any country. However, there are two main reasons why they will tend to be done in the advanced developing countries. First, in order to make a project financially viable, there must be a sufficient revenue stream. If a project uses external equipment priced on world markets, only those countries with sufficiently high per capita incomes can support user fee charges large enough to pay the capital costs. Secondly, a country must have a sufficiently strong institutional and regulatory structure to negotiate and support these projects. In many instances, this is a much more important problem than the financial and economic issues.

f. Terms of Assistance

The intention is that these loans would be made at market rates. There would be no interest rate subsidy and there would be no problem with the OECD guidelines.

B. CREDIT AND RISK MANAGEMENT

The implementation of credit reform now imposes upon federal credit agencies the responsibility to keep credit risk within targeted levels. For A.I.D.'s proposed Capital Projects Fund, credit analysts will need to divide the program's portfolio of loans and guarantees into several baskets. Table VI-1 presents a matrix which includes six sovereign risk categories, as well as three project risk categories:²

- Structured, to minimize country risk factors;
- Commercial 1, for private commercial projects of intermediate risk; and
- Commercial 2, for private commercial projects of higher risk.

Using an OMB spreadsheet model,³ and the assumptions noted below, one can derive commercial risk estimates that can be combined with the OMB sovereign risk estimates to generate the matrix of credit subsidy estimates shown in Table VI-1. This table shows that, for

² OMB actually sub-divides sovereign risk into more categories, as illustrated in Tables IV-1 and IV-2. For purposes of illustration, we have used six sovereign risk categories.

³ See attachment B to Budget Procedures Manual No. 778 and Appendix C to OMB Circular No. A-11.

sovereign loans, credit subsidy percentages vary from 2.66% for direct loans to countries in the "A" (lowest) risk categories up to 63.54% for direct loans to "F" category countries. Guaranteed loans involve slightly lower credit subsidies in each case, as explained earlier.

The "structured" loan category represents the credit subsidy for a project structured to minimize country risk factors. (The elements of such structuring are discussed in Chapter 4, Section B.2). Because of the special structure, project risk factors predominate over country risk. For direct loans, credit subsidy amounts range from 33% for a structured loan in an "A" (low risk) country up to 45% for a structured loan in an "F" (high risk) country.

The "commercial 1" loan category represents the credit subsidy for a project that is owned by or otherwise linked to a utility-like entity with quasi-governmental status. For direct loans, credit subsidy amounts range from 4% to 73% across the range of country risk categories.

The "commercial 2" loan category represents the credit subsidy for a private sector borrower operating in the commercial sector, where the loan is not structured to mitigate country risk. For direct loans, credit subsidy amounts range from 6.5% to 82% across the six country risk categories. For all loan types, guarantees involve lower credit subsidies in each case, as indicated on the table.

It must be stressed that any credit subsidy model, such as that which generated Table VI-1, involves issues of false precision. Eventually, OMB and CBO are expected to standardize criteria for estimating credit subsidies for credit extended to foreign private sector borrowers, as now has been done for sovereign lending. The particular assumptions used in the model are explained more fully in the next section of this chapter.

OMB can be expected to monitor carefully the process by which the new program extends its credit. Under traditional apportionment rules, OMB is not especially concerned if a program extends a proportionately lower number of loans or guarantees that fall into the high-risk category or a proportionately higher number that fall into lower risk categories. OMB is, however, critically interested in assuring the total credit that the program extends within a given year will not entail a greater aggregate amount of credit subsidy than was budgeted for the program for that year.

1. Assumptions

Table VI-1 presents the results of a model that has been applied to the credit portion of a hypothetical Capital Projects Fund. The underlying assumptions of the credit subsidy model are as follows:

- Financing for each project has 20-year maturity, amortized on a straight-line basis.

TABLE VI - 1
SUBSIDY ESTIMATES FOR A.L.D. GUARANTEED AND DIRECT LOANS
 Uses Risk Premia Methodology

Borrower Risk Category	Country Risk Category					
	A	B	C	D	E	F
Class I - Sovereign:						
<i>Direct Loans</i>	2.66%	4.71%	8.54%	19.89%	39.10%	63.54%
<i>Guaranteed Loans</i>	2.09%	3.70%	6.70%	15.53%	30.21%	48.23%
Class II - Structured:						
<i>Direct Loans</i>	3.33%	5.14%	8.14%	16.45%	28.84%	44.96%
<i>Guaranteed Loans</i>	2.61%	4.04%	6.38%	12.86%	22.41%	34.62%
Class III - Commercial 1:						
<i>Direct Loans</i>	3.99%	6.97%	12.39%	27.57%	49.95%	73.04%
<i>Guaranteed Loans</i>	3.13%	5.47%	9.70%	21.44%	38.32%	54.93%
Class IV - Commercial 2:						
<i>Direct Loans</i>	6.48%	11.18%	19.34%	39.65%	63.58%	82.37%
<i>Guaranteed Loans</i>	5.09%	8.76%	15.10%	30.63%	48.26%	61.30%

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TABLE VI - 1 (Continued)

Assumptions				
	Class I	Class II	Class III	Class IV
Total Volume of Loans:				
Number	1,000	1,000	1,000	1,000
Amount (dollars)	100,000,000	100,000,000	100,000,000	100,000,000
Average Loan Amount (\$)	100,000	100,000	100,000	100,000
Upfront Fee	--	--	--	--
Annual Fee	--	--	--	--
Term (years)	20	20	20	20
Loan Interest Rate	7.03%	7.03%	7.03%	7.03%
Treasury (risk free) Rate	7.03%	7.03%	7.03%	7.03%
Risk Premia:				
Country Risk Category:				
A	35	44	53	88
B	63	69	95	158
C	118	112	177	295
D	305	244	458	763
E	747	486	1,121	1,868
F	1,865	933	2,798	4,663
Discount Rate (Treasury + Premia):				
Country Risk Category:				
A	7.38%	7.47%	7.56%	7.91%
B	7.66%	7.72%	7.98%	8.61%
C	8.21%	8.15%	8.80%	9.98%
D	10.03%	9.47%	11.61%	14.66%
E	14.50%	11.89%	18.24%	25.71%
F	25.68%	16.36%	35.01%	53.66%
Overall Default Rate	--	--	--	--
Default Recovery Rate	--	--	--	--
Percent Guaranteed	100.00%	100.00%	100.00%	100.00%

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- Projects are divided into sovereign categories plus three project risk categories, as indicated earlier.
- OMB country risk premia are applied to calculate subsidies for loans and guarantees to sovereign borrowers.
- For structured loans and guarantees, the OMB country risk premia are adjusted according to a sliding scale, from 125 percent for structured lending in an "A" country to 50 percent in an "F" country. This assumption reflects the predominance of commercial rather than country risk factors in low risk countries and the increasing benefit of structuring to mitigate the country risk factors in high risk countries. It also recognizes that for infrastructure projects country risk factors cannot be completely mitigated.
- The OMB country risk premia are increased by 50 percent for commercial one category loans and guarantees. This reflects the increased credit risk of loans that do not benefit from a sovereign commitment to repay but that nevertheless bear increasing political risk as a country's risk category increases.
- The OMB country risk premia are increased by 150 percent for commercial two category loans and guarantees. This reflects the increased credit risk of loans that do not benefit from a sovereign commitment to repay, but that nevertheless bear increasing political risk as a country's risk category increases.
- The terms of project finance are assumed, for the moment, to include no origination fee or annual loan or guarantee fee charged by A.I.D.
- The terms of project finance are assumed, for the moment, to involve loans at the Treasury rate of interest for direct A.I.D. loans or at a commercial rate for A.I.D. loan guarantees without provision for buying-down interest rates with a cash subsidy from A.I.D. The benchmark Treasury rate for FY 1993 has been established at 7.03% for a 20-year maturity.
- Project defaults are complete losses to A.I.D., without recovery of offsetting amounts from other parties.

These assumptions give rise to the results presented in Table VI-1. The second page of the table summarizes the assumptions used in the spreadsheet model. The choice of adjustment factors for the three project risk categories is somewhat arbitrary. It reflects a series of judgments by the project team. First, in low risk countries, the spreads of commercial loans over sovereign loans tend to be small and dictated largely by commercial rather than country risk factors. Second, as the country risk increases, the spreads of commercial loans over sovereign loans tend to widen. Many factors affecting country risk also permeate commercial risk. For higher-risk

countries these may include low per-capita income, high political volatility and an uncongenial environment for rigorous project management and collection of project-generated revenues. Finally, the selection of particular adjustment factors reflects a sense that the particular numbers are appropriate for the particular countries and types of projects involved.

OMB officials observe that the critical element in this type of credit subsidy model is transparency. That is, the assumptions are stated explicitly so that they can be adjusted as the design of a credit program is refined and as experience warrants.

Finally, OMB will gain added confidence in the proposed program if A.I.D. commits itself to following a policy of diversification of risk. Such diversification would suggest, for example, that A.I.D. allocate program resources across a broad range of countries and types of capital projects. Such diversification can help reduce the likely variance of credit risk for each risk category and help assure that the program remains within credit subsidy amounts budgeted for each program year.

2. Subsidy Estimates for Illustrative Portfolios

In order to provide A.I.D. with some sense of the budget implications of using credit for the Capital Projects Fund, the team calculated subsidy estimates for the two hypothetical illustrative under the models proposed earlier in this chapter.

a. Model 1: Public-Private Lending

Model 1 assumes that 75 percent of the lending would be to sovereign entities and 25 percent of the lending would be to non-sovereign or commercial entities. Table VI-2 outlines a hypothetical portfolio under the model. In this portfolio, the majority of A.I.D.'s lending is to countries in the C and D country risk categories; there is a small amount of lending to countries in the B and E categories, and that there is no lending to countries in the F category. It is also assumed, for illustrative purposes, that 75% of the portfolio would be direct loans and 25% would be guaranteed loans. If project lending rates are equal to the benchmark Treasury rate (i.e., there is no concessional financing), the subsidy estimate for the public sector projects in this portfolio would be 11.97 percent; the subsidy estimate for private sector projects would be 4.1 percent. The total subsidy estimate for the portfolio would be slightly more than 16 percent.

The use of concessional finance alters the picture. If A.I.D. used concessional terms for selected projects, this would increase the subsidy estimate of the portfolio. Because A.I.D. must use concessional finance judiciously (in light of the OECD guidelines on tied aid, as well as its cost in terms of subsidy estimates), Model 1 envisions that most of the projects would be financed at near market terms. However, for certain countries or certain projects, A.I.D. may wish to use concessional terms. If A.I.D. were to buy-down the interest rates, for example, by 2.5 percent on 25 percent of its public sector projects, the subsidy estimate would increase by four points. The total subsidy estimate of the portfolio would be slightly more than 20 percent.

Model 1 also assumes that A.I.D. would extend roughly \$400 million in new credit per year. Therefore, if the subsidy estimate is 20 percent, A.I.D. would need to request \$80 million in budget authority for the program per year.

b. Model 2: The Private Sector Approach

In contrast, Model 2 assumes that all lending would be to non-sovereign entities. Table VI-3 outlines a hypothetical portfolio under the model. In this portfolio, nearly all of the lending is to countries in the C and D categories, and there is no lending to countries in the E and F categories. Again, it is assumed that 75% of the portfolio would be direct loans and 25% would be guaranteed loans. Assuming project lending rates are equal to the Treasury rate, the subsidy estimate for an illustrative portfolio of projects would be nearly 17 percent. A.I.D. could decrease the subsidy estimate for this portfolio by charging an interest rate slightly above the Treasury rates. For example, if A.I.D. were to charge an interest rate that is 75 basis points above the Treasury rate, this would translate into roughly a five percent reduction in the subsidy estimate of the portfolio. Hence, the total subsidy estimate would be 12 percent. The calculations underlying these estimates are contained in Table V-3.

Model 2 assumes that the A.I.D. portfolio would comprise \$100 million in new project lending per year. Thus, if the subsidy estimate is 12 percent, then A.I.D. would need to request \$12 million in budget authority.

**TABLE VI-2
MODEL 1: THE 75/25 PUBLIC-PRIVATE SECTOR MODEL**

PUBLIC SECTOR PROJECTS

OMB COUNTRY RISK CATEGORY	SUBSIDY ESTIMATES FOR EACH RISK CATEGORY	PERCENTAGE OF PROJECTS IN EACH RISK CATEGORY	TOTAL SUBSIDY ESTIMATES
B	4.46%	5	0.22
C	8.08%	30	2.42
D	18.80%	30	5.64
E	36.85%	10	3.69
F	59.71%	0	0.0
SUB-TOTALS		75	11.97

PRIVATE SECTOR PROJECTS

OMB COUNTRY RISK CATEGORY	SUBSIDY ESTIMATES FOR EACH RISK CATEGORY	PERCENTAGE OF PORTFOLIO IN EACH RISK CATEGORY	TOTAL SUBSIDY ESTIMATES
B	6.60%	5	0.33
C	11.72%	10	1.17
D	26.04%	10	2.60
E	47.04%	0	0.00
F	68.51%	0	0.00
SUB-TOTALS		25	4.10

MODEL 1 SUBSIDY ESTIMATES:

- *PUBLIC SECTOR PROJECTS:* 11.97
- *PRIVATE SECTOR PROJECTS:* 4.10
- *TOTAL SUBSIDY ESTIMATES (NO CONCESSIONAL FINANCE):* 16.07
- *TOTAL SUBSIDY ESTIMATES (LIMITED CONCESSIONAL FINANCE):* 20.07

**TABLE VI-3
MODEL 2: THE PRIVATE SECTOR MODEL**

OMB COUNTRY RISK CATEGORY	SUBSIDY ESTIMATES FOR EACH RISK CATEGORY	PERCENTAGE OF PROJECTS IN EACH RISK CATEGORY	TOTAL SUBSIDY ESTIMATES
B	6.60%	10	0.66
C	11.72%	50	5.86
D	26.04%	40	10.42
E	47.04%	0	0.00
F	68.51%	0	0.00
TOTALS		100	16.94

MODEL 2 SUBSIDY ESTIMATES:

- **SUBSIDY ESTIMATES ASSUMING CONTRACT RATES
EQUAL TREASURY RATES:** **16.94**
- **SUBSIDY ESTIMATES ASSUMING CONTRACT RATES
ARE SLIGHTLY ABOVE TREASURY RATES:** **11.94**

NOTES ON TABLES VI-2 AND VI-3:

1. *The subsidy estimates in column four are derived by multiplying the subsidy estimates for each risk category (column two) by the percentage of projects in each category (column three). The total subsidy estimate is the sum of subsidy estimates under each individual risk category.*
2. *For public sector and private sector projects, the subsidy estimates for each risk category reflect a weighted average of subsidy estimates for loans and loan guarantees. For illustrative purposes, it was assumed that 75 percent of the financing would involve direct loans and 25 percent would involve loan guarantees.*
3. *For private sector projects, the subsidy estimates for each risk category reflect a weighted average of subsidy estimates for loans and loan guarantees under the "Commercial 1" category on Table VI-1. Although not all projects will fall into this category, this choice reflects a balance between projects in the three non-sovereign categories: (i) structured; (ii) Commercial 1; and (iii) Commercial 2.*

3. The Process of Credit Scoring

a. OMB Concerns

OMB scrutiny is especially intense because of the likelihood that for most credit programs actual losses on loans or guarantees will not materialize for at least several years after the end of the relevant budget period. This can be especially true for longer term loans such as those envisioned for the Capital Projects Fund.

To protect itself against the prospect of unpleasant budget surprises in later years, OMB can be expected to insist that a federal credit program such as the Capital Projects Authority use a rigorous process to assure the financial risk involved in loans or guarantees provided for each particular project. As has been seen in the earlier review of capital project funding by the World Bank and the IFC, such rigorous assessment of credit quality is possible, but demands the commitment of significant administrative resources both within the credit agency and in contractor staff.

OMB is likely to insist on a similar quality of screening of project proposals before credit is extended by the Capital Projects Fund. If OMB staff lack confidence in the rigor and integrity of such a process, they have a broad range of tools available to register displeasure. They might, for example, hide their lack of procedural confidence in methodological arguments and an insistence on unrealistically high credit subsidy estimates. Without a track record of funding low-risk capital projects, A.I.D. would be at a disadvantage in such a methodological debate. It is far preferable for A.I.D. instead to structure a process from the beginning that is designed to give OMB full confidence that the portfolio of loans and guarantees extended in any year will conform carefully to budgeted credit subsidy levels.

b. Recommendations for the Credit Scoring Process

While the administrative details can vary according to program needs, it is possible to identify some of the important aspects of a rigorous credit screening process:

- Each capital project funding proposal must pass the credit scoring process before a federal loan or guarantee is approved.
- In the credit screening process, issues of credit risk must be considered in isolation. Other program objectives -- such as developmental benefit, trade benefit, or the need to support a particular country -- should be reviewed independently at a separate stage of the process. It will be up to A.I.D. program managers to decide whether to deny funding to creditworthy projects that may lack some of the desired other program benefits. However, the actual credit score -- the risk basket into which the particular project is categorized -- itself should not be adjusted to reflect any of these other considerations.

- OMB must have confidence in the technical capacity of the credit screening unit. The successful bilateral lenders and the World Bank each possess large staffs of investment officers that are skilled and usually knowledgeable in the intricacies of each kind of capital project funded by their agencies; they also have access to specialized staffs on a contract basis to fill gaps in their knowledge and, in some cases, to undertake the on-site credit review of proposed projects. OMB will, of course, be concerned that A.I.D. spend its budget economically on administrative overhead; OMB is likely to be even more concerned if it perceives that technical staff involved in the credit scoring process lack the requisite knowledge and quality.

c. Recommendations for Credit Risk Analysis

It is recommended that A.I.D. establish a program that is administered as follows:

- A.I.D. should attempt to assure consideration of the broadest possible array of capital projects that are candidates for funding. A.I.D. missions overseas, American companies selling components for overseas capital projects, bilateral and multilateral lending agencies and U.S. overseas lending agencies all should be consulted periodically for possible project proposals.
- A.I.D. should screen and score project proposals for developmental, trade, and other program benefits. This screening can best be conducted by an internal A.I.D. staff committee.
- For those projects that score acceptably with respect to program benefits, A.I.D. should create an investment committee of government officials to screen the documentation provided by project sponsors with respect to creditworthiness.
- Those projects that pass the first cut by the A.I.D. Investment Committee should be referred to an investment committee of outside experts, experienced in international finance and capital project funding. This Outside Investment Committee (OIC) should be authorized to call upon contractors for help in forming technical review teams to assist with evaluation, both on-site and off-site, of the creditworthiness of proposed projects. A.I.D. may want to include a staff member from the local A.I.D. mission as a non-voting observer at on-site meetings of the technical review team. A.I.D. Washington staff may wish to observe off-site deliberations of the technical review team and the Outside Investment Committee.

As an option, the Outside Investment Committee should be authorized to explore the possibility of retaining Standard & Poor's or Moody's Investors Service to the extent that such organizations are capable of helping to score project proposals according to their credit risk categories.

The Outside Investment Committee should be required to score each proposed project according to its creditworthiness. To help avoid false precision, the credit score should consist of a decision that a given project should be scored in a low-risk (with or without risk sharing, as the case may be), medium-risk, or high-risk basket.

- A.I.D. Washington officials should review decisions of the Outside Investment Committee. To preserve OMB's confidence in the independence of the process, A.I.D. officials should be limited in their authority to overturn a decision of the Outside Investment Committee. For example, A.I.D. might limit itself to obtaining a second opinion from a second group of independent experts selected jointly and acceptable to both the Outside Investment Committee and the A.I.D. reviewing officials.
- A.I.D. Washington officials should make the final decision about projects that merit credit support. Their decisions will include consideration of program benefits as well as the need to keep the A.I.D. portfolio of projects diversified, both as to country and as to type of project. Within those limits, it is a policy decision for A.I.D. whether, for example, programmatic benefits might require the funding of particular high- or lower-risk projects so long as the total number of projects funded in any one year remains within budgeted credit subsidy levels. Also, interest rates and fees can be adjusted and traded off against credit subsidies calculated for each loan.
- A.I.D. may wish to consult with OMB periodically to reassure OMB officials about the quality of implementation of the credit scoring process and also to obtain the benefit, in turn, of insights that might be provided by others in the federal government.

4. Rigorous Loan Administration

In OMB's view, perhaps the most important issue is the ability of an agency to administer its credit portfolio properly. Effective loan administration involves application of (1) appropriate accounting systems, (2) timely and comprehensive loan information systems, and (3) rigorous credit management policies and procedures.

Credit reform requires enhanced accounting methods so that loans and guarantees can be monitored according to their year of origination. All cash flows must be promptly recorded for each loan, including payment of fees and repayment of principal and interest and shortfalls and payouts due to delinquencies and defaults respectively. This information must be organized according to loan categories and cohorts and constantly tested against budgeted credit subsidy amounts for those categories and cohorts. Finally, programs must be managed to assure that borrowers or financial intermediaries do not misuse the government's credit and thereby increase the government's losses and fail to accomplish intended public purposes.⁴

⁴On credit management, see, for example, Department of the Treasury, Financial Management Service, Guaranteed Loan Management Assessment (Washington, DC: June 1990).

C. INSTITUTIONAL CONSIDERATIONS

1. Locus of the Capital Projects Fund

The Agency for International Development has increasingly decentralized its operations, thereby delegating decision-making authority from A.I.D. Washington to the missions in the field. This enables the missions, who are most familiar with the needs of the countries in which they are working, to make key decisions about the future direction of their programs and projects.

In contrast to this general trend in the Agency, it is envisioned that the Capital Projects Fund will be a centrally-managed fund. In October 1991, the Agency established the Capital Projects and Engineering Office within the Bureau for Private Enterprise. It is this office that will hold primary responsibility for the Capital Projects Fund. Clearly, no project would be launched in a given country without the mission's and regional bureau's close involvement in its development and without their approval of the final design. However, there are a number of factors which argue for central management of the Capital Projects Fund. Some of the more important considerations are discussed below.

a. Collaboration with Project Partners

As noted previously, one of the key factors which distinguishes the Capital Projects Fund from A.I.D.'s earlier capital project initiatives will be the role of project partners. The Agency can no longer afford to finance major capital projects on its own; rather, it must establish partnerships with U.S. businesses and other institutions which can provide additional resources and expertise to promote sound capital projects in developing countries.

The heart of the Partnership for Business and Development is to build on and utilize the expertise of the U.S. business community, while promoting opportunities for increased U.S. trade and investment in developing countries. With respect to the Capital Projects Fund, one of the key criteria for project selection will be the potential for U.S. private sector involvement and the project's expected impact on U.S. trade and investment. If there is little potential for U.S. business involvement (either directly or through procurement) in a proposed project, the project would not be considered for funding. It is also anticipated that the U.S. business community will be the key source of information on opportunities for capital project development. American firms and business associations will therefore need to have a central point of contact in the Agency. In addition, if the Capital Projects Fund is to achieve its dual objectives, development and U.S. economic competitiveness, A.I.D. will need to reach out to the U.S. private sector; it must establish close working relationships with the American firms; and it must operate in a mode that responds to the needs of U.S. businesses. This calls for a new way of doing business -- one that can realistically only be done within the United States.

Other key project partners will include the bilateral and multilateral development lending institutions. These institutions will continue to be major financiers of capital projects, and key partners for A.I.D. in its renewed efforts to finance capital projects. The benefits to developing

close working relationships with these institutions are three-fold: (a) co-financing will enable each of the partners to share the financial risk inherent in any project, thereby reducing A.I.D.'s exposure on any given project; (b) working closely with these institutions will enable A.I.D. to leverage its own funding for capital projects; and (c) given that many of these institutions already have credit and risk analysis systems in place, co-financing can help improve the quality of proposed projects and reduce the project appraisal burden falling upon A.I.D. Again, close collaboration with these institutions can be better accomplished from a centrally-managed facility in Washington.

Lastly, collaboration with other U.S. government agencies that are involved in capital project development is also critical to the success of A.I.D.'s Capital Project Fund. As outlined in Chapter II, the Trade and Development Program finances pre-feasibility and feasibility studies, the first step in the capital project cycle. The Export-Import Bank finances the sale of U.S. goods and services, including goods and services for capital projects in developing countries. And the Overseas Private Investment Corporation finances private sector projects in which an American firm is a key investor.

The A.I.D. Capital Projects Fund will help to fill a missing gap in U.S. government resources for capital project development. It will provide an institutional mechanism to target the need for better infrastructure in developing countries and to promote trade for the United States. The A.I.D. Capital Projects Fund does not duplicate or compete with the activities of any of the other U.S. government institutions. However, the fact that all of these institutions are involved in various phases of capital project development means close collaboration is critical. Because none of the other U.S. government institutions have an overseas presence, good working relationships must be launched from a Washington-based facility.

b. OMB Requirements

In order to obtain credit authority for the Capital Projects Fund, A.I.D. must demonstrate that it can meet the requirements of the Office of Management and Budget. In addition, OMB can be expected to monitor carefully the process by which this new program extends its credit. The fact that this is a new credit program -- and the track record is yet to be established -- means that A.I.D. and OMB must work together closely to ensure that credit risks are kept with targeted levels.

c. OECD Compliance

The A.I.D. Capital Projects Fund must also operate within the parameters of the new OECD rules on tied aid. The U.S. Treasury is eager to work closely with A.I.D. to ensure that proposals for capital project funding comply with the new OECD guidelines on tied aid. The need for a consistent and coordinated U.S. government position on the use of concessional finance for capital projects calls for close collaboration between Treasury and A.I.D. The Agency is currently undertaking a more in-depth examination of the OECD rules on tied aid in light of its commitment to the development of a capital projects initiative.

d. Additionality

In order to be effective, the Capital Projects Fund must provide funding that is additional to any country allocation or earmark. It is indisputable that the OECD countries compete for the best projects -- that is, those that are both developmental and commercially viable. Recipient countries understand this and find ways to factor new money and resist the use of already earmarked funds. The need for additionality argues for a centrally-based fund, which can finance those projects deemed most worthy of support. The funding for these projects should be over and above country and regional allocations.

2. Skills and Functional Requirements

Over the past decade, A.I.D.'s involvement in capital projects has declined significantly. Concomitantly, its use of credit mechanisms to fund projects has also diminished. These trends have had an impact on the skills base within the Agency. This section of the chapter explores what types of skills and functions would be required to manage and operate a credit-based Capital Projects Fund, and to what extent, these skills are already available within A.I.D. The skill requirements are best understood in terms of the various phases of the project cycle: project identification, project development, project review and appraisal, and project management and oversight.

a. Project Identification

A.I.D. should seek to consider a wide range of potential projects for the Capital Projects Fund. A key source of potential projects will be the USAID missions in the field and the regional bureaus in Washington, D.C. But it is important to recognize that most of the overseas missions have been out of the capital projects business for some time and may well not be as familiar with the key players in capital projects as they were previously. The Capital Projects and Engineering Office should also be responsible for identifying new projects, as well as tracking new developments and trends in capital project development.

In order to meet the objectives of the Partnership for Business and Development, however, the Office must also make a special effort to reach out to the U.S. business community and solicit their participation in the program. A.I.D. should seek to obtain their assistance in identifying potential capital projects. Similarly, for projects that are identified in the field, A.I.D. must develop the capacity to generate American firms' interest and participation of American firms, should the project warrant their involvement.

The U.S. engineering and construction firms interviewed by the team contend that the best way to make a program responsive to business is to ensure that it is well-run, efficient, and staffed with competent professionals that know their business. An advisory board or marketing campaign might be helpful. However, if the Capital Projects and Engineering Office can meet these management criteria, the U.S. business community will identify projects and will be willing to work with the Agency to make the program a success.

b. Project Development

Two skills are critical to the design of sound capital projects: knowledge and expertise in finance, and engineering capabilities.

Knowledge and Expertise in Finance: Over the past decade, A.I.D. has become increasingly a grant-based agency. Over time, it has had less need for the type of skills needed to develop and manage a credit-based program. The exceptions to this general trend are the development of the Private Sector Investment Program within the Bureau for Private Enterprise. The core staff of the Private Sector Investment Program is comprised of financial specialists, all of whom have had extensive international banking experience. The fact that the Capital Projects and Engineering Office will also be located within the Bureau for Private Enterprise opens the possibility for cross-fertilization between these two programs. However, given the current demands on the Investment Office's small staff, the Capital Projects and Engineering Office should not anticipate drawing on their expertise to carry out its daily operations.

The key skills required to develop projects under the Capital Projects Fund will be financial skills, in particular, expertise and experience in international project finance. The financial specialists must be able to rigorously analyze and assess the risk inherent in any given project; they must have the ability to determine how best to structure the financing so as minimize risk; they will work with other co-financiers in the project to spread the risk across various entities; and finally, they will assist in packaging all of the various funding sources. In sum, launching a credit-based Capital Projects Fund will require sophisticated financial skills, including strong capacities in risk assessment and management. Without these skills, there is little chance that the Office of Management and Budget will grant A.I.D. credit authority for the Capital Projects Fund.

Engineering Capabilities: A.I.D.'s engineering capabilities have declined significantly, reflecting the diminished role of capital projects in the Agency's portfolio over the past fifteen years. A.I.D. had 154 engineers in 1974, 112 in 1982, and 59 in 1987. Today, there are only 35 engineers, less than one percent of the Agency's 4,200 direct-hire employees. Many of the former "capital project specialists" have actually remained within A.I.D., but have moved on to another functional specialty or "backstop" in order to take advantage of better career opportunities. A recent tabulation conducted by A.I.D.'s Capital Projects Committee identified about a hundred people with strong capital project skills in the Agency; roughly a third of these individuals are in the engineering backstop (A.I.D., Capital Projects: Questions, Answers and Comments.) In conclusion, a base of engineering skills still exists in the Agency, but is rapidly becoming thin. Any further erosion of skills would make it increasingly difficult for A.I.D. to launch a serious capital projects initiative.

c. Project Review and Appraisal

As noted in the previous section on credit and risk management, A.I.D. will need to establish a two-track system for reviewing proposals for the Fund. Projects will need to be reviewed to ensure that they meet A.I.D.'s dual objectives for the program: promotion of sound development and U.S. economic competitiveness. There is no doubt that the expertise exists within A.I.D. to assess the development impact of proposed projects; this is A.I.D.'s forte. The experience and expertise of A.I.D.'s mission-based staff will prove invaluable in assessing the potential developmental impact of projects. In addition, the engineering staff of the Capital Projects and Engineering Office will be critical in assessing the technical feasibility of proposed projects. A.I.D. is beginning to develop the expertise to assess the potential for U.S. trade, but may wish to consider working with other U.S. government agencies such as Commerce to determine more precisely the potential for U.S. trade benefits from funding any given project.

Separate from the analysis of development and trade benefits, A.I.D. must have the capacity to analyze and assess the creditworthiness of a proposed project. This is a necessary, but not sufficient, requirement to obtain credit authority from the Office of Management and Budget. It is also essential to the effective implementation and success of the program. The preceding section on credit and risk management proposes the creation of an internal Investment Committee. This could conceivably be composed of senior investment officers from the Private Sector Investment Program, the Housing Guaranty Program, and the Capital Projects and Engineering Office; however, A.I.D. might also wish to consider drawing the risk analysis expertise of other U.S. government agencies involved in capital project development, such as OPIC and the Export-Import Bank. In addition, an Outside Investment Committee is proposed, as an additional check on the assessment of creditworthiness of any given project.

d. Project Management and Oversight

There are at least two components to conducting sound management and oversight of projects to be funded under the Capital Projects Fund: regular project site reviews and sound systems for loan tracking and administration. The fact that A.I.D. has a strong field presence will facilitate the Agency's ability to track progress and potential problems at the project site. Because this oversight role will imply an additional management responsibility for the field missions, it is critical that they be closely involved in the development and approval of proposed projects and are willing to assume that responsibility.

A.I.D. will also need to develop strong systems for tracking its loans and managing its portfolio. One of the most important concerns of OMB is that federal agencies develop appropriate accounting systems, timely and comprehensive loan information systems, and rigorous credit management policies and procedures. In its request for credit authority, A.I.D. should not take loan administration for granted; rather, it must demonstrate to OMB that it does in fact have a systems in place that meet OMB's requirements for loan tracking and portfolio management. In particular, OMB will want to ensure that A.I.D. has the ability to respond quickly and effectively to signs of financial distress.

3. Internal versus External Expertise

The staffing requirements of an A.I.D. capital projects facility are defined by a number of criteria. First, such a facility would exist within the broader Agency which can provide a multitude of supplementary and overhead support services from existing staffing. This narrows considerably the staff required relative to a free-standing entity. Second, co-financing and cooperation with other donors offers some reduction in the "scrubbing" of project proposals which must occur. Third, A.I.D.'s practice of contracting out for service delivery offers a means of providing sophisticated project analysis and financing services on an as-needed basis with the potential for cost-recovery from fees.

As noted above, many of the critical skills needed to run a credit-based Capital Projects Fund have become increasingly thin in A.I.D. It will take some time before the Capital Projects and Engineering Office can acquire the necessary skills to run this program. The office should seek to develop a core staff of project finance specialists and engineers in the near future. However, it should also consider relying heavily on external assistance in the early years in order to assist in getting the program up and running. In addition, this external assistance should be drawn from sources that clearly have a reputation to preserve in the business of credit and risk management, such as a Standard & Poors or Moody Investor Services.

Based on its current skill base and the potential for modest growth in the future, the types of activities A.I.D. should consider retaining in-house include the following:

- ◆ U.S. business outreach
- ◆ Liaison with USAID missions to identify potential capital projects
- ◆ Coordination and negotiations with other U.S. government agencies, in particular
 - The Office of Management and Budget
 - Treasury
 - Trade and Development Program
 - The Export-Import Bank
 - Overseas Private Investment Corporation
- ◆ Negotiations with project sponsors and co-financiers
- ◆ Analysis and review of development and trade benefits of proposed projects
- ◆ Internal review of project credit risks of proposed projects
- ◆ Project monitoring and oversight
- ◆ Accounting and loan information systems

Activities that are probably best undertaken via external assistance include the following:

- ◆ Technical assistance in international project finance
- ◆ Credit analyses of proposed projects
- ◆ On-going risk assessment of the portfolio
- ◆ External review of project credit risks of proposed projects
- ◆ Specialized technical expertise in key sectors: telecommunications, power, environment, and other sectors as deemed necessary by A.I.D.
- ◆ Project evaluations

4. Internal Staffing Requirements

Only preliminary estimates of the internal staffing requirements can be made at this time. These numbers could change significantly if A.I.D. chooses to take on additional activities internally, or contract out more activities. Rough orders of the staff required to implement a lending program for capital projects can be gleaned from a review of the staffing profiles of other lending agencies. For example, the International Finance Corporation has slightly more than 650 employees. In 1991, it made 152 commitments to new projects; hence, the number of staff per new loan is 4.3. The Japanese development loan agency, OECF, has 280 employees. In 1990, it made 107 loans to new projects; hence, its number of employees per new loan is roughly 2.6. The French agency, CCCE, has 312 permanent employees that operate its developing country grant and lending program. In 1990, the agency made commitments to 162 new projects; hence, its staff to new project ratio is nearly 2:1.

Clearly, some of the staff included in these numbers involve management and administrative support, as well as other functions which do not directly contribute to assessing individual capital projects. Perhaps the best proxy can be derived from OPIC; a representative from OPIC estimates that 8 staff people are required for every 5 approved loans.

As described previously, the "Model 1" option for A.I.D. Capital Projects Fund portfolio (the 75:25 public/private model) would include roughly thirteen new projects per year. "Model 2", the private sector model, would include about five new projects per year. Using OPIC's staffing requirements as a proxy, Model 1 would therefore require about 8 additional employees to administer the credit portion of the program. Model 2 would require about 21 employees.⁵

⁵ These estimates are not the staff required to initiate a program. Rather, they are the staff required to manage a portfolio that has matured over time. A.I.D. should assume that these numbers would need to be attained within approximately a four year period.

A breakdown of the staffing requirements is estimated below. It is important to note that these are the incremental staff required to implement the credit portion of the program. It is assumed that the director and deputy director of the office, as well as the engineering staff, would be in place as a result of the grant-funded portion of the program. In addition, the business outreach required for this initiative might be handled from PRE's International Business Office.

Model 1: The Public/Private Model

Model 2: The Private Sector Model

- (15) Capital Projects Finance Officers
- (3) Loan Administration/Tracking
- (3) Administrative Support Staff

- (6) Capital Projects Finance Officers
- (1) Loan Administration/Tracking
- (1) Support Staff

(21) Total Estimated Staff

(8) Total Estimated Staff

5. Internal Administrative Expenses

a. General Background

Under credit reform, costs are now categorized into two areas: program expenses and administrative expenses. Program expenses include only those funds directly devoted to the project, e.g. the actual amount of loans extended. Many expenses that were previously considered operating expenses are now part of administrative expenses. Because the categorization of costs has changed significantly under credit reform, it is important to note the new definition of administrative costs as well as the types of costs which now fall under this heading. As stated by OMB:

the term "administrative expenses" [used interchangeably with administrative costs] means the portion of the total salaries and expenses that are directly related to credit program operations. Administrative expenses that are tangentially related should not be included. As an illustration, the cost of auditing credit programs that is financed in the accounts for Inspectors General is not to be included. Administrative expenses include:

- the appropriate proportion of administrative expenses that are shared with non-credit programs;
- the cost of operating separate offices or units that make policy decisions for credit programs;
- the cost of loan systems development and maintenance, including computer costs;

- the cost of monitoring credit programs and private lenders for compliance with laws and regulations;
- the cost of all activities related to credit extension, loan servicing, and write-off and close out; and
- the cost of collecting delinquent loans, except for the costs of foreclosing, managing and selling collateral that are capitalized or routinely deducted from the proceeds of sales.

b. Administrative Expenses for the Capital Projects Fund

For the purposes of describing the administrative expenses associated with a capital projects loan and loan guarantee program, the team envisioned that the existing Office of Capital Projects already would be staffed by a Director, Deputy Director, several engineers and a number of support staff. The team also assumed that responsibility for U.S. business outreach would be undertaken by an existing A.I.D. staff member (either directly within the Office of Capital Projects or from another office which focuses on outreach, e.g. the Office of International Business Development). Thus, the administrative expenses noted below are related only to those staff members and operations directly linked with the credit program and are additive to the expenses currently incurred through other operations (such as the grant component) of the Capital Projects Office. The elements included in the Capital Project Fund's administrative costs are as follows:

- | | |
|---------------------|--------------------------------|
| ● Salaries | ● Cost of Outside Contracts |
| ● Support Costs | ● Travel |
| ● Apportioned Costs | ● Audited Financial Statements |

Salaries will comprise the largest single component of the Capital Projects Fund. As mentioned earlier, for proper operation, the Fund will require outstanding financial analysts, as well as engineers. It is expected that these individuals would command compensation at the GS-12, GS-14 or FS-1 levels. Support costs, which include such items as office space, office furniture, computers, telephones and supplies, are another considerable component. The credit division of the Capital Projects Office will also have to contribute resources to compensate for its proportion of services requested of such offices as the General Counsel, the Controller, the Assistant Administrator, etc. The cost of any outside contracts, such as those described in Section 3 (above), are also incorporated into administrative costs. Finally, any travel expenses and the required audited financial statements are part of administrative expenses. Once primary elements of the Capital Projects Fund are defined (most importantly, the size of the portfolio, because of its implications for staffing), these administrative expenses can be estimated.

D. SUMMARY AND CONCLUSIONS

Based on the analysis contained within this study, the team concludes that it is feasible to use credit authority to finance capital projects and meet the criteria and requirements set by A.I.D. Ultimately, the decision whether to seek credit authority, and which model to pursue will depend on A.I.D.'s broader policy and programmatic objectives.

The Private Sector Model: The private sector model described in this chapter would enable A.I.D. to limit its program to non-sovereign lending. Given that private sector involvement in infrastructure development is just beginning to grow, the team estimates that A.I.D. would be able to lend in the range of \$100 million per year; A.I.D.'s participation in each project would be in the range of \$20 million, thereby enabling the Agency to support five new projects every year. Assuming that project lending rates are slightly above the Treasury bench-mark rate, a conservative estimate of the subsidy required for a portfolio of projects under this model would be 12 percent. Under this scenario, A.I.D. would need to request \$12 million in budget authority for the credit portion of the Capital Projects Fund. This is a small facility, one which would necessarily produce more limited trade benefits than the model described below.

The Public-Private Model: Notwithstanding PRE's request that the team present a private sector model, the team believes that the 75/25 public-private model holds a number of advantages. This model is based on the other major bilateral donors' approach, the key advantage of which is that it is designed to generate economic benefits for not only the developing country but also the donor country. This is also a goal of the Capital Projects Fund.

However, we also recommend several important variations to the bilateral model. First and foremost would be the emphasis placed on creating opportunities for private sector participation in the ownership, management and financing of capital projects in developing countries. For this reason, the team has recommended that 25 percent of all lending under this model be targeted for private sector capital projects. As noted above, the team estimates that A.I.D. would realistically be able to finance \$100 million in private sector projects in a given year. Using a ratio of 75:25 of public to private sector projects in the portfolio, A.I.D. could finance \$300 million in public sector projects per year. The team estimates that the average size of A.I.D.'s participation in each public sector project would be \$40 million, resulting in support for 8 new projects in any given year. The combined portfolio of public and private projects would provide \$400 million in finance for an average of 13 new projects per year, (8 public sector projects and 5 private sector projects).

Another major departure from the bilateral model would be the use of concessional finance. The team recommends that A.I.D. leave itself the option to use concessional finance for public sector projects; however, in light of the new OECD guidelines, its use must be carefully considered on a case-by-case basis. Assuming that A.I.D. makes limited use of concessional finance, a conservative estimate of the subsidy required for a portfolio of projects under this model would be 20 percent. Under this scenario, A.I.D. would need to request \$80 million in budget authority for the Capital Projects Fund.

**TABLE VI-4
SUMMARY OF THE MODELS**

	75/25 PUBLIC-PRIVATE MODEL	PRIVATE SECTOR MODEL
Total Direct Loans and Loan Guarantees Per Fiscal Year	\$400 million	\$100 million
Subsidy Estimates (percentage)	20 percent	12 percent
Budget Authority Required	\$80 million	\$12 million
Estimated Financial Leverage (rounded)	5:1	8:1
Estimated Project Leverage	4:1	4:1
Estimated Program Leverage	20:1	32:1
Total Finance Generated, Including A.I.D. Loans and Guarantees (rounded)	\$1.6 billion	\$400 million

NOTES:

1. **Subsidy Estimates:** As explained in Section B.2. of this chapter, these subsidy estimates are based on a hypothetical portfolio of projects. The actual subsidy estimates will depend on the assumptions used in the design of the Capital Projects Fund.

2. **Leverage:** As outlined in Chapter IV, Section C, financial leverage is the ability to extend credit at some multiple of the budget authority; in this case, financial leverage is derived from the subsidy estimates. Project leverage is the ability to combine A.I.D.'s loans with other sources of funds to finance a project; we have assumed that A.I.D. would aim to finance in the range of 25% of any given project, and would seek project partners to finance the remaining 75%. Program leverage is the combination of financial leverage and project leverage.

The benefit of this model is that it is larger and would provide increased opportunities for trade leverage. However, it is also important to recognize that the size of this model will not suffice to meet the demands of the U.S. private sector. Most of the U.S. businesses interviewed by the team believe that at least \$1 billion is necessary for A.I.D. to be a serious player in the business of capital projects financing. A.I.D. could potentially finance many more public sector projects, and perhaps more private sector projects as increased opportunities emerge. However, in light of the fact that this is a new program which will require new policies, procedures and staff, we believe that A.I.D. should initially set relatively modest objectives for the size of its portfolio. The team recommends that A.I.D. test its ability to use credit authority to finance capital projects, and then determine to what extent the program should be expanded.

One final question remains. Does the 75/25 public-private model suggest a return to the way A.I.D. did business in the 1950s and 1960s? The team believes that, while there may be lessons to be learned from A.I.D.'s previous experience, the approach of the Capital Projects Fund is notably different from that of the past. Three key factors distinguish the Capital Projects Fund:

▶ *Developmental and Trade Benefits*

The primary objective of the Capital Development Fund is to finance developmentally sound capital projects that meet the economic and social needs of emerging markets. As is true of all A.I.D. projects, capital projects will be subjected to a rigorous development screen prior to authorization of funds. The second objective of the Capital Projects Fund is to promote U.S. trade and economic competitiveness. Only those projects which have the potential to meet the needs of developing countries and generate long-term trade benefits for the United States will be eligible for A.I.D. support under the Capital Projects Fund.

▶ *Leveraging Resources through Partnerships*

In the past, A.I.D. often fully-funded the development of an infrastructure project, all the way from the initial feasibility study through the project's design, construction, and start-up. Clearly, A.I.D. no longer has the resources to renew this approach. Moreover, given the resources of other U.S. government agencies involved in the capital project finance cycle, as well as those of other multilateral and bilateral donors, it no longer makes sense for A.I.D. to assume this role. The Capital Projects Fund is based on the premise that A.I.D. will establish partnerships with U.S. businesses, other U.S. government agencies, and multilateral and bilateral institutions which can provide the additional resources and expertise needed to promote capital projects.

▶ *Private Sector Emphasis*

Lastly, opportunities are beginning to emerge for private participation in capital project development -- opportunities that rarely existed in the 1950s and 1960s. The 75/25 Public-Private Model recognizes the fact that most capital projects remain in the domain of the public sector, but encourages the creation of opportunities for private sector participation in the ownership, management, and financing of capital projects.

In conclusion, the decision whether to seek credit authority, and if so, which model to pursue will depend on A.I.D.'s broader policy and programmatic objectives. In either case, the team urges A.I.D. to give itself time to build the necessary systems for sound management and implementation of the program; to rely heavily on first-rate technical assistance in the early years in order to get the program up and running; to collaborate closely with OMB, Treasury, TDP, OPIC, and Export-Import Bank in the development of the program; and above all, to start out conservatively in the initial years of the program and build on a successful track record.

ANNEXES

ANNEX 1

SCOPE OF WORK

ANNEX 1

SCOPE OF WORK

FEASIBILITY STUDY FOR THE USE OF CREDIT AUTHORITY AS PART OF THE CAPITAL PROJECTS FUND

1. OBJECTIVE

The objective of this work is to prepare a feasibility study which will be used by A.I.D. and, potentially, by OMB and Congress to determine whether A.I.D. should seek to finance a portion of its Capital Projects initiatives through loans and/or guarantees. It is anticipated that the analysis in the report will also be useful, as well, to considerations of the use of credit authority by A.I.D. in areas that are not considered capital projects.

2. BACKGROUND

A.I.D. will be seeking a "Capital Projects Fund" in FY 93 to pursue its development and U.S. business competitiveness goals. The Private Enterprise Bureau (PRE) will be establishing a Capital Projects Office to manage this activity in cooperation with USAID overseas Missions. The "Fund" will be established initially with grant resources in the range of \$150-300 million.

The decision to add loan and guarantee authority ("Credit Authority") to the Fund has been deferred until a feasibility study is completed which will describe how the credit authority will be used and how it will be managed to comply with the Budget Enforcement Act of 1990. The Senate has asked for a similar report or study in S. 1435 (the Lieberman amendment to Boren, Bentsen Bill), indicating that the Congress intends to defer a decision on this issue until it has been carefully analyzed. Capital projects have been the subject of recent Agency internal task forces and Congressional legislation represented by the Boren, Bentsen Bill. There is an extensive body of literature and materials prepared within the past year which reflect the widely held view that LDCs have a critical need for capital assistance and infrastructure and that A.I.D. can better achieve its development goals and its newer U.S. business competitiveness goals by financing such needs. These materials suggest that A.I.D. with its overseas Missions has a comparative advantage over other donors to identify and implement sound projects. The capital project materials are mostly silent on the pros and cons of credit authority.

A.I.D., with a few exceptions, is essentially a grant agency. Because A.I.D. policy generally opposes giving grants to private enterprise, the all grant nature of the initial Capital Projects Fund will tend to direct A.I.D. resources to public-versus-private capital projects. There are strong institutional biases against assistance-giving on harder terms as would be the case with credit authority. The LDC debt crisis has resulted in USG debt forgiveness programs and an aversion to terms of assistance which complicate the LDC debt burden. With the exception of

advanced developing countries, A.I.D. will be reluctant to use credit authority where the obligor is an LDC sovereign. Accordingly, the focus of the feasibility study will be on non-recourse financed capital projects that promise to be financially sustainable and where the creditors will look to the project earnings - versus sovereign credit worthiness - for security. In addition, pursuant to credit reform principles, A.I.D. will not want to use credit authority in the absence of true risk sharing with creditable project co-sponsors, preferably private sector sponsors. The feasibility study should work with a notional limit of 50% risk sharing or 50% project financing to assure true risk sharing even though OMB guidelines will permit up to 80% risk sharing.

3. TASKS

Coopers & Lybrand shall prepare a feasibility study (approximately one to two hundred pages in length, excluding attachments) on the use of credit authority to fund A.I.D. capital projects. The study shall include separate chapters on the following topics:

- a. An analysis of the existing and planned use of credit authority by selected bilateral and multilateral donors to fund development-oriented capital projects in LDCs. This analysis should identify the terms of assistance offered by major donors; the percentage of grant, loan, and guarantee financing compared to their overall assistance levels; the leverage factors used and ratios of capital to development financing offered; the practice and procedure for the mixed use of grants and loans/guarantees in the same transaction; criteria used to determine the terms of assistance; risk analysis and risk management procedures used by the donors; and the bureaucratic organization and staffing used to administer such credit programs indicating if such donors have sought the need to establish "hard loan/guarantee windows" or the equivalent to manage harder term assistance.
- b. An analysis of the same factors listed above as they may relate to domestic (State or Federal) capital project programs.
- c. A discussion and categorization of illustrative types of capital projects that meet A.I.D.'s development criteria and that qualify to receive credit assistance in whole or in part as their source of financing. This material shall be edited from A.I.D. reports and shall also reflect the views and judgment of the contractor.
- d. A recommendation and analysis for the staffing and management of an Office of Capital Projects with special emphasis on skills needed to manage a credit program. Assumptions as to FTEs shall be supplied by A.I.D. Based on FTE levels, this chapter shall also estimate the operating expense needs of the unit.
- e. Recommendations on a comprehensive set of risk management principles, policies, and procedures that are designed to result in a "subsidy" cost of the credit program of not more than 10%. The principles and policies shall be developed to the extent practical

to assure true risk sharing by creditable project partners. Separate analysis shall be developed for the loan and guarantee portfolios as required by OMB. The analysis shall assume a maximum 50% risk sharing or financing by A.I.D. The analysis shall take into account OMB requirements for budget requests of credit authority and be designed to satisfy OMB. Having established risk principles, the contractor shall make recommendations on an independent administrative unit within A.I.D. that would regulate the credit program, exercising oversight and performing risk analyses with rigor and discipline.

- f. Analysis of the feasibility of local currency denominated guarantees (including a ceiling on contingent liability expressed in dollars) from a project development standpoint as well as the OMB standpoint. This analysis shall explore the value of local currency guarantee authority from a development standpoint as well as the budget scoring implications.
- g. Recommendations and analysis concerning a proposed "U.S. Business Partnership Capital Projects Initiative" which would require as a condition for 50% A.I.D. loans or guarantees, a substantial partnership with U.S. businesses. This chapter would discuss how A.I.D. might structure such an initiative and estimate the effective demand for credit authority over a five year period. This chapter shall reflect the results of the contractor's discussions with the U.S. architect and engineering community and construction contractors. It would take into account donor rules on tying and informal practices of other donors which have the same result of tied procurement. The analysis shall include the contractor's opinion as to whether the buy/promote America concepts will be achievable at a tolerable cost to the development objectives and whether there are alternatives, short of 100% tying, which will promote U.S. competitiveness in other ways. Also included shall be a summary of the DAC rules and understandings affecting financially sustainable capital projects together with recommendations, if any, of how the conflicting objectives might be managed.
- h. Analysis of the Omnibus Guaranty Proposal from the OMB perspective and recommendations as to the feasibility of this initiative.

4. REPORTS AND DELIVERABLES

The first draft of the Report shall be completed within 90 days after the commencement of work. Coopers & Lybrand shall provide 15 copies to A.I.D. A final report shall be due 15 days after Coopers & Lybrand receives A.I.D.'s comments on the draft. Coopers & Lybrand shall provide 40 copies of the final report. The cover of the report shall follow a format to be prescribed by A.I.D. Upon the completion of the feasibility study, the contractor shall be available to participate in briefings and consultations, as requested, to explain and defend its report.

5. TEAM MEMBERS AND QUALIFICATIONS

The Contractor team shall be composed as follows:

a. Team Leader

- Experienced in the design and planning of A.I.D. or other donor development projects in LDCs.
- Senior economist, finance specialist, or development professional with the demonstrated ability to produce professional reports and defend them orally.

b. Credit Authority Expert

- Recognized senior level expert on credit reform and USG credit programs who, through publications of published professional articles and/or testimony before Congress, is deemed to have credibility with OMB and the Congress.
- Knowledge of LDC economies and development.

c. Financial Markets Specialist

- A minimum of 10 years experience in banking and project finance.
- Experience with LDC credit markets and doing business in LDCs.

d. Researcher

- One junior-level research assistant/editor.

ANNEX 2

LIST OF PEOPLE CONTACTED

ANNEX 2

LIST OF PEOPLE CONTACTED

The Coopers & Lybrand team contacted and interviewed numerous officials from the Agency for International Development. The team would like to acknowledge and thank the staff of A.I.D. for their input and contributions to the report. In addition, the team contacted the following individuals outside of A.I.D.:

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ANNEX 3

LIST OF SOURCES

ANNEX 3

LIST OF SOURCES

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ANNEX 4

**THE BUILD, OPERATE AND TRANSFER APPROACH
TO INFRASTRUCTURE PROJECTS**

ANNEX 4

THE BUILD, OPERATE, AND TRANSFER APPROACH TO INFRASTRUCTURE PROJECTS

A. INTRODUCTION

In the late 1970s many developing countries found their ability to finance and implement infrastructure projects severely limited as infrastructure needs increasingly exceeded government income. Government budgets were further limited by competing demands on revenue and the lack of borrowing capacity. Few financial resources, if any, were available to address the growing demand for power plants, water supply systems, electrical transmission lines, toll roads, port facilities, and other infrastructure needs. As a result, many countries began to look for new approaches that would meet these needs, while shifting the bulk of the burden to the private sector. One method that emerged was the BOT (Build, Operate, and Transfer) approach. As financial constraints on government budgets have persisted and governments increasingly look to the private sector for solutions, today there continues to be widespread interest in BOTs.

B. DESCRIPTION OF BOTs

The BOT and variant approaches, such as BOO (Build, Own, and Operate, *i.e.*, without any obligation to transfer the project to the government) and BOOT (Build, Own, Operate, and Transfer), provide a host country government with the means to promote privately owned and operated projects that are financed under a concessional type arrangement.

With the BOT approach, the host government authorizes one or more sponsors from the private sector to create a private "project company" that will *build* and *operate* the infrastructure project and then, after a certain period of time (usually 15-25 years), *transfer* the project over to the government. This project company generally consists of a consortium of private sector sponsors that are responsible for the financing, building and supplying of the project. The consortium usually includes an international engineering and construction contracting firm, equipment suppliers, plant and system operators, and investors. The project company and its representatives negotiate the details of the arrangement with the host government.

The project company then raises debt financing (usually 70-90 percent) for the project from both the sponsors (generally 10-30 percent) and from commercial sources and bilateral and multilateral lenders. Commercial credit is typically made with the backing of export credit guarantee agencies. The project company may include the host government as a minority equity partner. The financing is typically done on a non-recourse basis, whereby the lender has no recourse to either the project sponsors or the host government. The only recourse is to the project company itself, its assets, and whatever guarantees, performance bonds or contractual rights the project company obtained.

After the negotiations between the project company and the government are completed and financing is arranged, the project company builds and operates the project for a designated period of time. The length of the period depends on how much time is required to pay off project debt and to make a satisfactory return (generally 15-20 percent) to the project's equity investors. The host government regulates and oversees the project and, at the end of the period, assumes ownership.

C. TYPES OF BOT PROJECTS

Since its introduction, the BOT approach has generated considerable interest in developing countries. As a result, a substantial number of varied BOT projects have been proposed and pursued. These include the building of a superhighway, water distribution system, power plants, toll roads, mass rapid transit systems, bridges, and port facilities, among others. Table 1 at the end of this Annex provides a list of many of the proposed and actual BOT projects in operation.

Two examples that are illustrative of the varied types, structuring, and experience of proposed BOT projects in developing countries are the Second Stage Expressway Toll Road Project in Thailand, and the Akkuyu Nuclear Power Plant in Turkey.

Example 1: The Second Stage Expressway Toll Road in Thailand

The Second Stage Expressway Toll Road is an example of a project which has progressed relatively rapidly through the stages of negotiation and implementation. The plan called for this 30 kilometer toll road project outside of Bangkok to be operated by a private company and based on a toll concession beginning on March 1, 1990. It is expected to run for 30 years. The project is under the supervision and regulation of the Expressway Rapid Transit Authority of Thailand ("ETA"), which was formed by the Thai government in 1972 to implement tolled expressways and mass transit systems.

In April 1988 the Bangkok Expressway Consortium ("BEC") was invited by the ETA to begin negotiations to finance, build, and operate the Second Stage Expressway. BEC is a consortium formed in February 1988 by the Bangkok Expressway Company, Limited ("BECL") and Kumagai Gumi Company, Limited. Kumagai Gumi is a major Japanese engineering and contracting firm and BECL is a Thai corporation majority owned by Kumagai Gumi. In September 1988 the Thai Cabinet approved the award of the project to BECL.

BECL is financing the estimated 25 billion baht (US\$ 1 billion) necessary to build the project through equity subscription commitments and loans, primarily from commercial banks in Thailand and multilateral and bilateral government lending institutions. The equity ownership is spread among the sponsors, various Thai institutional investors, and international financial institutions. When the project becomes operational, BECL intends to sell shares to the public.

In order to facilitate the implementation of this project, the Thai government has agreed to support the project in several key ways, including the following: 1) sharing with BECL revenues from the existing government built toll road system; 2) enabling ETA to acquire the necessary land for building the new expressway; 3) making the project eligible for investment privileges, including an eight year corporate income tax relief period, and tax exemptions on dividends; and 4) allowing for adjustments in the agreement in the event of "exceptional occurrences." These adjustments include delaying the implementation schedule, adjusting the revenue sharing proportions, increasing the tolls, and extending the overall concession period of the project (Augenblick and Custer, 1990, Annex 2, pp. 9-10).

Example 2: The Akkuyu Nuclear Power Plant in Turkey

An example which illustrates the complexity and difficulty of arranging BOT projects between the host government and private sector participants was a proposal in the late 1970s to build a US\$ 625 million 1,000 MW nuclear power plant at Akkuyu.

As designed, the government-owned Turkish electric authority ("TEK") and the designated contractor were to form a joint venture utility ("JVU") to finance, build, own, and operate the Akkuyu nuclear power plant for 15 years. TEK was to purchase the plant's generated electricity at fixed prices during this period, at the end of which ownership would be transferred to the Turkish government.

The project was never implemented because the Turkish government and principal bidders on the project, Atomic Energy of Canada and Kraftwerk Union of West Germany, were apparently unable to reach a satisfactory agreement on the distribution of risks. The project sponsors and lenders were seeking guarantees from the Turkish government for JVU's external debt repayment, the government's promise to purchase a minimum amount of the plant's electrical output, and exchange rate convertability. The Turkish government, which viewed the BOT approach as an alternative to government-supported projects, was unwilling to provide these guarantees. Without these sovereign guarantees, the West German and Canadian export credit guarantee agencies were unwilling to provide their guarantees for the sponsors' proposed investments or export credits. Under these conditions, neither sponsors nor commercial lenders were willing to take the risk (Augenblick and Custer, 1990, Annex 2, pp. 3-4).

D. PROS AND CONS OF THE BOT APPROACH

The examples outlined above are illustrative of the different objectives of the various participants and the complexity of negotiating a deal that is satisfactory to each participant. Below are listed some benefits and advantages of the BOT approach, as well as the risks and difficulties.

Benefits and Advantages

Advocates of the BOT approach generally cite three potential benefits of these projects for the host government: additionality, reduced risk, and efficiency.

Under the BOT approach the host government achieves additionality by accessing sources of foreign private and government financing that might otherwise be unavailable. The presence of foreign equity investment in BOT projects (generally 10-30 percent of total investment) represents national savings, and foreign debt financing from commercial banks and international and bilateral development agencies expands the total credit available. It is estimated that the additionality provided by the BOT approach is generally greater than 25 percent of total project costs (McDermott and Berg, undated, p. 22).

Secondly, most of the financial and operational risk is assumed by the private sector participants, which reduces the risks and costs to the host government. As mentioned earlier, BOT projects tend to be financed on a limited recourse basis, whereby creditors have recourse only to the project company's assets, generated revenues, and whatever warranties and guarantees that were obtained by the project company. As such, risk carried by the host government is reduced.

And thirdly, because the sponsors and investors hold an equity stake in the project, they have a strong incentive to ensure that project is successful. Allowing the private sector to assume responsibility for the design, implementation and operation of BOT projects may provide efficiencies that might not otherwise be achieved.

To its advocates, the primary attraction of the BOT approach is the prospect that the project will be completely privately financed, without any host government support. According to an August 1990 World Bank Working Paper, however, there has not been a single BOT project of any significant size that has not required extensive host country support and substantive financial backing at one or more stages of the process (Augenblick and Custer, 1990, p. 4). This is a reflection of the risks inherent in BOT projects.

Risks and Difficulties of BOT Projects

Risk, and the allocation of risk, is a factor that, perhaps more than any other, has influenced the outcome of BOT projects. Because of the financial and legal complexity of BOT projects, there are many risks in undertaking BOT projects for all parties involved. The structure of BOT agreements is further complicated by the difficulty in determining who should assume which risks, how much risk, and how much compensation should be received for assuming the risk. Some of the risks can be assumed by the various parties, others are outside of their control. Most BOT projects entail the following risks (Augenblick and Custer, 1990, pp. 25-30):

- **Completion Risk** - the risk that the project will not be completed according to schedule and budget. This risk is assumed by the construction contractors through various agreements and performance bonds, as well as by the project company and equity investors.

- **Performance and Operating Risk** - the risk that the project will not perform and operate as agreed upon in the contract. This risk is generally assumed by the consortium of construction contractors and equipment suppliers who provide warranties and performance guarantees in an operating and maintenance contract.
- **Cash Flow Risk** - the risk of fluctuations in cash flow or that forward debt service may not be covered. This risk can be assumed at different levels and by different parties. Lenders usually require the project company to maintain adequate escrow accounts. Also, in some cases the government provides standby obligations to provide subordinated loans during construction and start-up. Other options include the purchase of commercial insurance in the London market.
- **Inflation and Foreign Exchange Risk** - the risk of both equity investors and lenders that an increase in inflation and foreign exchange volatility can adversely affect potential profits. Because the investors and lenders feel that these risks are beyond their control, they often call upon the host government to assume this risk. The government generally makes an arrangement within the contract to adjust the price of goods or services according to an indexing of inflation. To cover exchange risk, the government will generally guarantee convertibility, sufficient foreign exchange and the exchange rate.
- **Insurable Risks** - the risks of casualties among plant, equipment, third parties, workers, and other commercial risks. A BOT project will generally obtain various types of insurance to cover these risks.
- **Uninsurable Risks (*Force Majeure*)** - risks that are uncontrollable and cannot reasonably be covered by insurance. Foreign lenders and export credit agencies do not want to assume *force majeure* risks, and only under rare circumstances will be willing to do so. Generally the host government is expected to assume at least some of this risk by providing insurance coverage.
- **Political Risk** - the risk that the host government might fail to follow through on its contractual project commitments. Foreign commercial lenders and equity investors generally assume this risk by obtaining political risk insurance from their export credit agencies or other sources.
- **Commercial Risk** - the risk of creditors that borrowers will default on their loans. Various foreign government agencies, such as the United Kingdom's Export Credits Guarantee Department, the U.S. Export Import Bank and the U.S. Overseas Private Investment Corporation provide commercial risk guarantees up to specified limits.

All of these risks have associated costs for project participants who are assuming them. Private sector participants pay more for assuming these risks than would a sovereign borrower financing the same type of project under a more traditional approach. These increased costs are passed on to the host government.

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Necessary Conditions

There are also a number of systems and conditions which need to be in place in order to carry out BOT projects (Augenblick and Custer, 1990, pp. 30-32). One necessary condition is a fairly mature legal system that will accommodate and be compatible with the complex legal structure of BOT projects. Private sponsors and investors will want assurances that contracts with the host government and local entities will be enforced, and that in case of breach, they will have some legal recourse. A second condition necessary for a BOT project is relatively well-developed financial systems. Most BOT projects specify a certain percentage of local participation in the project; this is easier to achieve in a country with well-developed banking systems and financial markets. A third condition is the stability of the host country's political environment, without which few investors are willing to risk their capital. And fourthly, and related to the political environment, is the host country credit rating. The more support provided by the host government in terms of credit, guarantees, and eventual repayment, the more important is the country's credit rating. Potential investors, creditors and guarantors carefully consider the country's credit rating in their decision whether to participate on any given project.

E. CONCLUSIONS

Few developing countries have financial, legal and regulatory environments that are developed enough to support BOT projects. Despite widespread interest in BOT projects in developing countries, few projects have gotten past the negotiation phase, and far fewer have reached financial closure, the construction phase, or implementation. To date, fewer than 10 BOT projects are operational, and these are concentrated in the rapidly growing countries of Asia (e.g. Malaysia and Indonesia) that have fairly well-developed financial, legal and regulatory systems (McDermott and Berg, undated, p. 24). Some of the other projects are progressing on schedule, while others have become enmeshed in negotiations or have been abandoned.

Developing countries lacking the requisite conditions have had difficulty attracting even conventional private investment. Investors who might be willing to accept similar kinds of risks in other types of investments are less willing when it comes to infrastructure projects, given the vulnerability of infrastructure projects to governmental interference.

Countries that do have the necessary conditions still face a number of issues that need to be resolved before a BOT project proposal can progress. The host government needs to decide whether it wants to undertake the complex and time-consuming process of negotiating and developing BOT projects, provide the extensive support that private sector participants will demand, and pay the rates of return expected by private equity investors and commercial lenders. The financing costs of nonsovereign borrowing and equity investment are significantly higher than sovereign borrowing. Together, these costs to the host government may exceed the costs of implementing the project using a more traditional approach. Countries that are contemplating BOT projects need to determine whether the potential political and economic benefits outweigh the costs.

**ANNEX 4
TABLE 1**

**BOT INFRASTRUCTURE PROJECTS IN DEVELOPING COUNTRIES REPORTED IN THE PRESS:
A PARTIAL LIST***

<u>COUNTRY</u>	<u>PROJECT</u>	<u>STATUS</u>
China	Sharjiao coal-fired power station in Guangdong	Operating
	Huaneng power project	Unknown
	Superhighway project	Unknown
Costa Rica	Road maintenance outside San Jose	Unknown
Cote d'Ivoire	Water distribution	Operating
Gabon	Manganese Ore Terminal	Proposed
Indonesia	Toll roads	Unknown
	Nuclear power plants	In negotiation
Malaysia	North Kelang Straits Bypass (toll road)	Operating
	Kepong Interchange (toll road)	Operating
	Labuan water supply pipeline and treatment plant	Operating
	Labuan-Beaufort submarine electric cable	Under construction
	Kuala Lumpur Interchanges North South Highway	Under construction Under construction
Oman	Manah gas turbine power plant	Proposed
Pakistan	Hab River power plant	Contracts signed
	Fauji Foundation power plant	Letter of Intent
	Habibullah-Siemens Consortium power plant	Letter of Intent
Philippines	Metro-Manila power plant	Under construction
	International container terminal	(Hopewell) Proposed
	Construction and operation of private commercial ports	Proposed
	300 MW coal fired power plant	Requests for proposals issued
Singapore	Mass Rapid Transit	Unknown

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Thailand	Bangkok Second Stage Expressway	Under construction
	Bangkok Metro	In negotiation
Turkey	Akkuyu nuclear power plant	Abandoned
	1000 MW coal fired power plant	Contracts signed
	Additional coal fired power plants	Proposed,
	Hydro power plants	Under construction (?)
	Bosphorus Second Bridge	Under construction (non BOT)
	Bosphorus Third Bridge	Abandoned
	Bosphorus tunnel	Proposed
	Istanbul Airport	In negotiation
	High-speed rail link between Istanbul and Ankara	Proposed
	Water plant (Izmir)	Abandoned
	Ankara Metro	Proposed
	Toll Roads	Proposed
	Port facilities and free trade zones	Proposed

* Data from World Bank Working Paper August 1990

ANNEX 5

**THE USE OF CREDIT AUTHORITY IN
DOMESTIC CAPITAL PROJECTS DEVELOPMENT**

ANNEX 5

THE USE OF CREDIT AUTHORITY IN DOMESTIC CAPITAL PROJECTS DEVELOPMENT

All levels of government in the U.S. are extensively involved in financing infrastructure. All levels of government also provide credit assistance for infrastructure projects. However, the type of credit assistance varies considerably among the various levels of government and the various types of infrastructure. In general, while there is some parallel between U.S. domestic infrastructure credit assistance and foreign assistance, the bulk of U.S. government credit assistance is based on a different policy framework and uses different credit tools than can be used for international assistance. In most cases, the framework and tools have evolved to solve issues specific to the U.S. and, in general, are not be practical for foreign assistance.

Even the definition of infrastructure in the U.S. and in the international arena is not the same. In the U.S., we have a more limited definition. When talking about infrastructure policy in the U.S., we do not normally consider telecommunications and power as part of the infrastructure that government might finance. However, in the international arena, we would. The major reason is that power and telecommunications in the U.S. are provided and financed almost entirely through the private sector, but in most other countries are provided by public entities. U.S. infrastructure finance statistics and program analysis generally do not include power and telecommunications.

Total spending on infrastructure by all levels of U.S. government in 1988 was \$132 billion, half of which was financed by taxes and half by borrowings. State and local governments accounted for all of the borrowing for infrastructure finance; federal and state governments conducted most of the taxation for infrastructure. The federal government acts primarily as a transfer agent for taxes, sending revenues to state and local governments to be used on specific projects. As the funding gets closer to a project, i.e. closer to local government, the amount of borrowing increases. However, federal and state governments also influence the amount of borrowing for infrastructure that state and local governments undertake.

The primary federal credit program for infrastructure finance is the federal tax exemption on bonds issued by state and local governments. This credit subsidy is provided on almost all state and local government borrowings for infrastructure. Because of the federal tax exemption, the buyers of state and local government bonds do not have to pay federal income tax on bond interest. The effect of the exemption is to the lower the interest rate that bond buyers demand for state and local bonds, and thereby decrease the cost of state and local government borrowing. The savings is roughly equal to the highest average U.S. tax rate that exists at the time (currently this is 20% to 25%).

The original justification for the federal tax exemption was a legal interpretation of the U.S. Constitution, but it is now continued for economic reasons. One economic rationale is that only the federal government is able to retrieve the returns from such investments. While in theory this idea is applicable to international capital projects finance (in particular because of the trade benefits which might accrue to the U.S. because of such finance), at this time using a tax exemption for international bonds is neither practical nor useful. Even in the U.S., analysts and market participants have questioned whether the tax exemption is a good policy tool for infrastructure development. The U.S. tax exemption essentially closes off international sources of finance; moreover, because it is captive to federal tax policy, it may also hinder state and local governments.

At this time, the federal government provides few loan or loan guarantee programs for traditional infrastructure. In fact, a 1990 report by CBO stated that in 1988 there were no loan guarantee programs and only \$150 million in direct loans for infrastructure. However, if a broader definition of infrastructure is used, the federal government does continue to provide loan and loans guarantees, such as the Department of Agriculture's Rural Electrification and Telephone Program. However, even these programs are being wound down. State governments increasingly are attempting to provide credit for infrastructure, but these programs are not particularly adaptable to international lending.

One U.S. domestic trend that is important for the Capital Projects Fund is the increased emphasis on public investment in infrastructure. Recent economic studies are increasingly showing the relationship between investment in infrastructure, economic growth, and employment. For instance, in a series of studies, Dr. David Aschauer has shown that there is a direct correlation between investment in public infrastructure and economic growth.

In similar studies at the Boston Federal Reserve and at the Cleveland Federal Reserve, respectively, Dr. Alicia Munnell and Dr. Randall Eberts have also shown this to be true at the regional and local level. In her report, Dr. Munnell states, "The evidence seems overwhelming that public capital has a positive impact on private sector output, investment, and employment" ("How Does Public Infrastructure Affect Regional Economic Performance?", p. 11). Dr. Eberts states that "the existence of public infrastructure is a necessary precondition for economic growth" ("Public Infrastructure and Regional Economic Development", p. 15). Because these studies were done in the U.S., one should be careful about extrapolating the results to less developed countries. Nevertheless, the studies demonstrate the importance of physical infrastructure for economic growth, at least for relatively more advanced countries.

Two other elements of U.S. infrastructure finance that are relevant to this study: the process of borrowing funds for infrastructure and the process of analyzing projects. When locating sources of finance for infrastructure in the U.S., the primary financial goal is to diversify the financial risk, especially long-term risk, as much as possible. Consequently, almost no projects financed through borrowing are funded from a single source. Rather, in almost all cases, risk is spread among a group of buyers such as mutual funds, individuals, and financial institutions. Such diversification should also be a goal of the Capital Projects Fund.

The process of evaluating borrowings for infrastructure projects in the U.S. is extensive and rigorous. Standard procedures exist for project evaluation. Even more importantly, reputable private entities, such as Moody's and Standard and Poor's, evaluate and rate financings. In general, the buyer in the market has access not only to considerable information about the project but also to an independent analysis of the project, thereby enabling an investor to form a very good idea of the project's relative risk and expected return. Yet another informative mechanism is the bond-rating model which is the basis for OMB's calculation of country risk premia described in Chapter IV of this report. While similar institutions and practices cannot immediately be established in the international arena, these organizations and methods might provide models of the type of analysis necessary to generate funds (particularly private funds) for international infrastructure projects.

Examples of the Federal Government's Role

At this time, the federal government provides few loans and loan guarantees for infrastructure projects. As discussed above, its major credit tool for infrastructure finance, the tax exemption, has little relevance for international programs. However, in the past the federal government was much more involved in providing credit assistance. A good example of this involvement is the Department of Agriculture's Rural Electrification Administration. While the program is still operating, its lending activities have been reduced; it nevertheless is a relevant example for this paper.

The REA's telephone and electrification programs were established to provide loans and loan guarantees for power and telephone services in rural America. In 1935, less than 11% of the rural areas in the U.S. had electricity. Moreover, the private sector was unwilling either to provide or to finance telephone or electricity services. Because of the high cost of providing service in thinly settled areas and because of the economic risk of lending in a highly cyclical agricultural economy, private entities were reluctant to enter rural areas. Had they been able to charge exorbitantly high electric or telephone rates, private utilities might have been willing to provide such services without government prompting -- but such high rates seemed the only way to entice private provision of services. This situation is analogous to the current situation in many developing countries.

To remedy the problem, the federal government established the Rural Electrification Administration in the 1930's. The program was sparked by a pilot study which showed the dramatic increases in farm productivity from electrification, primarily from lower production costs. These broad economic benefits could not be reaped by either a private utility or private investors. The federal government was the only organization with the incentive to finance the project in order to achieve these broader economic returns.

REA was intended to make market rate loans. However, beginning in 1944 a small interest rate subsidy was added to the program. The results of the program were dramatic: between 1935 and 1960, rural electrification increased from 11% to 96% of rural areas. Moreover, our understanding is that there were almost no defaults during this period. In addition to providing

finance, REA included a technical program that helped lower the cost of providing electricity, assisted the formation of cooperatives, and helped market the program in rural areas. In later years, the program also tapped other sources of funding such as private financial institutions and the capital markets.

The later history of the program is less successful. In the 1970's and 1980's, REA maintained a fixed lending rate of between 2% and 5% at a time when market interest rates increased dramatically. This greatly increased the program's interest subsidy, encouraged overborrowing (because of relatively cheap capital), and contributed (along with a significant decline in the farm economy) to the program's first serious defaults. Currently, the program is being down-scaled and is undergoing adjustments, as are other credit programs under Federal Credit Reform.

The REA electrification and telephone programs demonstrate both the potential advantages and disadvantages of federal credit programs. They also highlight criteria that the Capital Projects Fund should employ when looking at using loan and loan guarantees for infrastructure projects in developing countries. For instance, the federal government encountered a great need for financing in an area where the private markets were unwilling to lend. Careful studies were undertaken, studies which detailed both the problems and the potential returns. Financial assistance was coupled with strong ancillary services such as technical innovations, marketing and organizational support. Moreover, the investments were made in an economy that enjoyed stable macroeconomic policy, little inflation and rapid growth. The program worked best when it provided little or no interest rate subsidy. Indeed, REA's major problem was that the federal government did not know how or when to end the program. As a result, the subsidy amount swelled and the program became very expensive relative to its return.

Examples of State and Local Programs

All state and many local governments have infrastructure credit programs involving either loans or loan guarantees. The two major programs are state credit enhancement programs (which are similar to loan guarantee programs) and direct state lending to smaller and poorer local communities. While the theory regarding many of these programs is similar to international project finance, the programs' practical relevance is limited.

State governments operate credit enhancement programs in order to help poorer and less visible communities borrow in the capital markets. Like a loan guarantee, a state government provides some sort of credit assistance to improve the credit standing of a local borrower. The improved credit standing allows the local government to access the capital market and to lower its borrowing cost. However, only rarely will a state government provide a full guarantee; instead, in most instances, states provide partial guarantees. The entities established to implement these programs are state borrowing authorities, state bond banks, and state infrastructure authorities. Some examples are Pennvest, the Illinois Environmental Facilities Authority and Kentucky Infrastructure Authority.

While these entities do provide credit assistance, they do not use risk or credit management policies; they do not calculate subsidy amounts when the state is at risk; and they do not consider defaults (because they are rare). However, in many instances, such as with the EPA Revolving Loan Fund, states do leverage government grants and combine loan funds with grant funds.

Many states also provide low interest or no interest loans to poorer and smaller local governments. Such loans have increased because of more numerous federal mandates, particularly for environmental projects. In these cases, there is extensive mixing of grants and loans. However, as with credit enhancement programs, there are no risk or credit measures, no subsidy calculations, and almost no defaults.

In sum, some lessons from the United States are relevant to the design of the Capital Projects Fund. The experience of United States infrastructure finance highlights the importance of risk diversification and a rigorous process for screening and evaluating potential projects. In addition, our experience demonstrates the dangers of providing excessive interest rate subsidies. These are all relevant and important lessons to be considered in the design of the Capital Projects Fund.

ANNEX 6

**LOCAL CURRENCY GUARANTEES
FOR CAPITAL PROJECTS**

ANNEX 6

LOCAL CURRENCY GUARANTEES FOR CAPITAL PROJECTS

A. INTRODUCTION

One of the tasks of the Coopers & Lybrand team was to assess the feasibility of providing U.S. government guarantees on local currency loans for capital project development. These loan guarantees would be similar to those extended under A.I.D.'s Private Sector Investment Program (formerly the Private Sector Revolving Loan Fund), which provides guarantees for loans to small businesses in developing countries.

B. TYPES OF TRANSACTIONS

There are primarily four types of transactions that the Capital Projects Fund could guarantee: (1) term loans from local financial institutions, (2) funds for working capital, (3) local bond issues in the local capital markets, and (4) a liquidity facility for loans.

1. Term Loans

A partial guarantee could be provided on term loans from local banks or other local financial institutions such as insurance companies. The local financial institution would make the loan to the project and the Capital Projects Fund would provide a guarantee for some portion of the loan. If the project were unable to pay back the funds, the Capital Projects Fund would assume responsibility for paying back the funds to the local financial institution.

2. Working Capital Funds

In many countries, given the short term structure of the financial system, the only funds that local financial institutions may be able to provide for capital projects would be working capital. In this case, the Capital Projects Fund would simply provide a partial guarantee on these short term funds.

3. Bond Issues

With a local bond issue, a capital project would raise funds in the local capital markets. In this case, the Capital Projects Fund would provide a partial guarantee for the project to the individuals or institutions which buy the bonds. If the project could not pay back the funds, the Capital Projects Fund would provide funds to the individuals or institutions which bought the bonds.

4. Liquidity Facility

A liquidity facility is essentially a stand-by letter of credit. The most common use of a liquidity facility is to guarantee that funds are available when a borrower wants to roll over an existing borrowing.

For example, suppose a local bank would like to provide financing for a capital project. However, the project needs fifteen-year financing and the longest maturity for which the local bank is willing to lend is three years. A liquidity facility would allow this borrower and the lender to be linked. A liquidity facility would make the fifteen-year loan, through a series of five three-year loans. The borrower and lender would first negotiate a three year loan, with the expectation that they would negotiate another three-year loan at the end of the first three years. The Capital Project Fund's liquidity facility would guarantee the borrower that, should a subsequent three-year agreement with a local bank fall through, the Fund would provide the funds at a specific interest rate. The Fund would only be at risk in the event that the local bank and the borrower could not renegotiate the loan.

C. THE RATIONALE FOR LOCAL CURRENCY GUARANTEES

Interventions in financial markets in developing countries are usually made for two reasons: to deepen local financial markets and to correct perceived "imperfections" in the financial sector. Deepening local financial markets means extending maturities, increasing competition, increasing the number of participants and increasing the number of financial instruments.

Market imperfections are generally defined as blockages in the financial system which preclude the financial system from operating efficiently. Examples of blockages are government policies, and misperceptions about risk and return. In a review of the Private Sector Revolving Fund (now called the Private Sector Investment Program, or PSIP), Elisabeth Rhyne identifies two broad types of market imperfections in developing countries: funding constraints and high transaction costs.

Rhyne defines funding constraints as "the inability of the financial system to raise sufficient funds or provide certain types of services as a result of government ceilings on interest rates, overvalued exchange rates, or simply the early developmental stage in which the financial system of a country finds itself. In a funding constraint system, no credit is offered despite the readiness of qualified borrowers to pay for it" (Rhyne, 1988, p. 7). High transaction costs are essentially the unwillingness of financial institutions to look at new borrowers because they have different characteristics than their regular borrowers. In these cases, the financial institutions are not accustomed to evaluating new loans, have biases against new types of borrowers, or are concerned about high administrative costs.

What is often difficult to determine in developing countries is the difference between a rational response to chronic problems in a country's financial system and an irrational unwillingness on

the part of the local financial institutions to overcome market imperfections. Refusing to make fifteen-year fixed rate loans when inflation is very high and there are constant fluctuations in government financial regulation and policy is a rational response to policies, not a market imperfection. Not making a five-year working capital loan (because such loans represent new territory) when an institution is already making five-year housing or equipment loans may be a market imperfection.

Current Status of Financial Systems in Developing Countries

In its 1989 World Development Report, Financial Systems and Development, the World Bank concludes that "the financial systems of all but a few developing countries remain small and undeveloped" (World Bank, 1989, p. 2). In general, the financial systems are very shallow and are controlled by national governments. There are few financial institutions, and most assets are controlled by either a few government banks or even by the central bank. Most credit is directed and in many cases interest rates are controlled. In those countries with operating financial markets, maturity lengths are very short, not more than two to three years, interest rates are high because of chronic inflation, and constantly changing national policies make administering these institutions difficult. Local capital markets do not exist and there are very few financial institutions, such as insurance companies, beyond the primary banks.

The market for long-term funds is even more problematic in these countries. Even though the need is great for long-term funding, inflation forces local banks to maintain short-term deposits and therefore, short-term loans. The cost of short-term money is high and long-term money is either non-existent or available only at prohibitively high rates. Most money for long-term capital projects is either from government appropriations or directed through government development banks. Traditional sources of long-term funding in developed countries, such as capital markets and insurance companies, either do not exist, are nascent, or are very weak.

What these means is that at this time, there is very little private local finance (either working capital or long-term) going into capital projects in these countries. This type of funding simply does not exist because of the weak financial systems and institutions in most developing countries. In such countries, local currency loan guarantees would be of little help.

This picture is accurate for most developing countries, but not all. Financial institutions in some developing countries are providing long-term sources of funds and finance for capital projects. Some notable examples are Chile, Mexico, Sri Lanka, India, Malaysia, and Thailand. In these countries, the governments are attempting to follow stable macroeconomic policies and to liberalize financial systems. Stable macroeconomic policies lead to lower inflation, which in turn heightens the potential for positive real interest rates and the lengthening of maturities for loans. With financial liberalization, more participants play a role in capital markets, and capital market activities take place under a stronger legal structure. As a result of financial liberalization, long term finance and stronger institutions to provide long-term finance have begun to appear in the countries mentioned above. Moreover, other financial institutions, such

as pension funds and insurance companies, are also providing long-term funds. Isolated examples of bond issues for capital projects also exist. In such cases, there is an opportunity to use local currency loan guarantees for capital projects.

D. POLICIES FOR DEVELOPING LONG TERM FUNDS IN DEVELOPING COUNTRIES

All of the studies reviewed on financial systems in developing countries state that a stable macroeconomic climate and, in particular, a stable inflation rate, is the best method of improving the local financial system. As mentioned above, a stable macroeconomic climate allows for positive real interest rates and allows the financial system to extend its maturity schedule, leading to a greater likelihood of providing long-term funding for capital projects. As a system is willing to provide long term funding, then guarantees from outside sources become more valuable and important.

The other conclusion of most of the studies is that providing financial incentives such as external loan guarantees can only work if they are provided at the margins of the financial system and are based on the current workings of the local financial system. A.I.D.'s Private Sector Investment Program is a good example. This program works through local financial institutions, and does not try to drastically change their operations. It makes loans at prevailing interest rates and at prevailing maturity schedules. In essence, it succeeds because it looks at a new class of borrowers within the parameters of the local financial system.

A good counter example is development finance institutions. In many developing countries development finance institutions were established to direct long term funding into specified areas such as agriculture, industry, and housing. In general, the performance of these institutions has been poor. In many cases, they have gone bankrupt or have had to be rescued by national governments. The primary problems have been that these institutions made loans at concessional rates; they were never able to develop sources of funds beyond external development banks and national governments; and they made loans based on political factors rather than economic and financial considerations. In general, the development finance institutions were subject to the same economic and government constraints which precluded the private sector from making these loans. In the end, these institutions could not be isolated from the country's macroeconomic conditions.

Recent development practices have increasingly focused on the private market as the mechanism to develop long-term sources of funding. Some countries have been trying to develop the non-bank financial sector through contract saving institutions, such as insurance companies, and by developing the local capital markets. In the more advanced developing countries or those countries such as India with more sophisticated sub-sectors, this approach has been working. As these institutions develop, they may be able to provide long-term funding for infrastructure and capital projects. Under such circumstances, a local currency loan guarantee could potentially be of benefit as these institutions learn the process of making longer-term loans.

E. OPPORTUNITIES AND CONSTRAINTS TO THE USE OF LOCAL CURRENCY GUARANTEES IN THE CAPITAL PROJECTS FUND: MAJOR POINTS

1. The purpose of the Capital Projects Fund is to provide financing for capital projects. The purpose of providing local currency loan guarantees is to deepen the local financial markets. While there may be some overlap, these are essentially different policy goals. In designing the Capital Projects Fund, A.I.D. will have to decide if it wants to assume an additional policy goal. The question is, given the limited financial and administrative resources of the Fund, should the Fund take on the additional role of promoting local financial markets development?
2. In most developing countries, the private financial sector provides almost no long-term funding, both in general and with respect to capital projects. The opportunity to use local currency guarantees will therefore be limited to a small group of countries.
3. In most developing countries, it will be difficult to convince private financial institutions to take a portion of a long-term loan when they are currently only making short-term loans. While it is often possible to induce lenders to extend maturities from two or three years to five years, it is almost impossible to convince lenders to extend maturities from two or three years to as long as ten to fifteen years.
4. In most countries, the financial and legal structure for bond issues is almost non-existent. There are only isolated examples of bond issues for capital projects in developing countries.
5. The nature of project finance makes it difficult for banks in developing countries to participate in capital projects. In most instances, capital projects are one time projects. Each project must be evaluated individually. Given the limited staff resources of local banks to evaluate any loan, it is questionable whether it is worth their time to participate in these complicated projects. Also, in many countries, local banks have lending limits, which may preclude banks from taking large participations in projects.
6. A small group of countries is attempting to maintain stable economic policies and to liberalize their financial systems. In these countries, long-term funds are being mobilized and institutions either exist or are developing to provide longer-term sources of funds. In these countries, a local currency loan guarantee from the U.S. government may encourage them to participate in a capital project.
7. In countries with severely limited private financial sectors, providing guarantees for working capital and providing liquidity facilities will be the best, if not the only, way for local financial institutions to participate in a project. Providing working capital and liquidity facilities will allow local financial institutions to remain within the parameters of the local financial system.

F. CONCLUSIONS AND RECOMMENDATIONS

At this time, only a few countries have financial institutions which provide the long-term finance required for capital projects. In these select countries, a local currency loan guarantee program sponsored by the Capital Projects Fund might make a difference. Outside of these countries, however, there will be very limited opportunities to use local currency loan guarantees for capital project development. Moreover, use of a local currency loan guarantee could add significantly to the credit subsidy estimate for a particular project. With increasing financial liberalization, there is the possibility that at some point in the future this type of program could assume greater importance. In light of these considerations, the C&L team recommends that A.I.D. obtain the authority to provide local currency loan guarantees under the Capital Projects Fund. However, the Agency should also recognize that the opportunities for using this instrument in a cost-effective manner will be limited.

ANNEX 7

**FEDERAL MANAGEMENT AND BUDGET ASPECTS
OF THE
A.I.D. OMNIBUS GUARANTY INITIATIVE**

ANNEX 7

FEDERAL MANAGEMENT AND BUDGET ASPECTS OF THE A.I.D. OMNIBUS GUARANTY INITIATIVE

Based upon the success of the Private Sector Investment Program (PSIP), formerly the Private Sector Revolving Fund (PSRF), A.I.D. officials have proposed the creation of a new Omnibus Guaranty Initiative (OGI). While the Private Sector Investment Program is used to overcome market imperfections that inhibit financing for small enterprises in developing countries, the new Omnibus Guaranty Initiative would be directed toward overcoming other market imperfections that impede the efficient deployment of funds by private financial institutions in such countries.

The Omnibus Guaranty Initiative was designed to take account of the institutional structure of A.I.D. The structure of the program was devised by a senior official of the Office of General Counsel -- an office that supports line organizations throughout A.I.D. -- to maximize the respective roles of A.I.D. missions and program staff in Washington, D.C.

In fiscal year 1992 the A.I.D. Administrator approved a budget request to OMB for the Omnibus Initiative. The heart of the proposal was that A.I.D. missions, at their option, were to be invited to seek to finance all or any of their projects through loan or guarantee authority in lieu of grants. All projects were to be eligible, so long as they were consistent with the FAA. The mission would apply for credit authority and ask the implementing bureau, the Bureau for Private Enterprise (PRE), to do a subsidy analysis. Whatever the "cost" was determined to be, the mission would be required to fund the finance account through a transfer of mission grant funds to the account. The proposal, in effect, was designed to give the private sector proponents in the Agency access to field staff resources and cause the PRE credit programs to become mainstream A.I.D. activities.

As a general rule, the program would provide guarantees to financial intermediaries (such as banks) in developing countries to encourage them to engage in new ways of doing business or to provide new kinds of profitable financial services. To assure prudent use of guarantees by lenders, the A.I.D. guarantee would be limited to 50 percent of the credit extended to any borrower under the initiative.¹

Based upon the distinctive success of the Private Sector Investment Program at helping to overcome market imperfections related to funding of small business enterprises in developing countries, A.I.D. has now analyzed additional kinds of financial market imperfections that could

¹ The enabling legislation for the Private Sector Investment Program similarly limits loans guaranteed to any one borrower to \$3 million or 50 percent of the activity, whichever is less. See 22 USC Section 2151f (i)(2)(c).

be addressed by the new Omnibus Guaranty Initiative.² The funding of small business enterprises would remain a major focus of A.I.D. In addition, the Omnibus Guaranty Initiative would permit A.I.D. to address other market imperfections as well. In this way, developing countries might expand the role of pension funds and insurance companies in supplying longer-term investment funds and improve the financial markets for capital projects such as privately constructed toll roads and private sector services such as health maintenance organizations (HMOs). Some expansion of current PSIP loan guarantee-size limits is also contemplated.

The analysis indicates that an Omnibus Guaranty Initiative could help to overcome several different kinds of market imperfections. These include: (1) improper risk management and problems of inadequate risk assessment by financial intermediaries, (2) reduction of transaction costs, such as by developing improved financial accounting and reporting practices and improved financial instruments, and (3) overcoming institutional constraints such as legal restrictions on beneficial types of financial arrangements.

This review of the Omnibus Guaranty Initiative is organized as follows. The first section provides an overview of the initiative and the way it builds upon the Private Sector Investment Program. The second section presents an overview of management and budget criteria used by the Office of Management and Budget and others for assessing proposals to create new federal credit programs. The third section reviews the developmental benefits to be provided by the new Omnibus Guaranty Initiative. The fourth section analyzes the costs of the proposed new initiative, in terms of administrative overhead and anticipated outlays needed to cover loan guarantee losses. Finally, the conclusion proposes a tentative process for the initiative. This would enable A.I.D. to solicit and screen applications for guaranteed loans to assure that the program is serving high priority developmental purposes -- and especially that it is directed to overcoming clearly perceived financial market imperfections -- while assuring that credit subsidies remain low and within budgeted levels.

The Private Sector Investment Program has made modest contributions to overcoming market imperfections impeding the flow of funds to small businesses. Moreover, this has been accomplished with a track record of very few loan or loan guarantee losses over a period of years.³ The new Omnibus Guaranty Initiative would similarly attempt to focus upon alleviation of market imperfections rather than providing subsidies to borrowers. A focus on market imperfections coupled with a strategy of rigorous credit scoring of applications for loan

² See A.I.D. staff paper, "Omnibus Guaranty Initiative Concept Paper," November 1990.

³ Elisabeth H. Rhyne, "The Economic Effects of A.I.D.'s Private Sector Investment Program," paper prepared for the American Economics Association Annual Meeting, December 1988, page 19; Private Sector Investment Program, FY 1990 Annual Report, pages 19-23.

guarantees would keep losses low compared to benefits. Given today's U.S. federal budget constraints as to levels of available funding, such an approach appears much more cost effective than an effort to use limited program resources to provide subsidies.⁴

A. THE OMNIBUS GUARANTY INITIATIVE

Traditionally, the Agency for International Development relied upon the grant as a major policy tool for encouraging developmental activities in overseas countries. Over the years, it became apparent that the grant had some significant limitations compared to other policy instruments such as controlled extensions of credit. Most importantly, it is widely recognized that many developing countries could benefit significantly from assistance in overcoming structural market impediments and that such market improvements could have longer term benefits than mere cash assistance. The direct loan and, especially, the loan guarantee are policy instruments more suited than the grant to addressing such market imperfections.

In contrast to the cash grant, the extension of credit can be used to promote financial discipline in the recipient. The extension of credit, if properly directed at a well understood market imperfection, can entail benefits for borrowers who are creditworthy and who can be expected to repay in a timely fashion. The loan guarantee is often superior to the direct loan in addressing market imperfections because the guarantee need not involve an interest rate subsidy that may be implicit in some forms of direct lending.⁵ On the other hand, the loan guarantee also has some limitations compared to direct lending. As a general rule, a loan guarantee can only be provided to a financial intermediary (e.g., a bank) to encourage desired kinds of lending; by contrast, the direct loan can go either to financial intermediaries or to the intended borrowers

⁴ The distinction between overcoming market imperfections and providing a credit subsidy is summarized in OMB Circular A-70 (revised), pages 3-4. Rhyne, at pages 18-21, discusses some of the differences in program objectives between a program of loan guarantees directed at market imperfections compared to larger scale credit subsidy support.

⁵ Before 1989 the Private Sector Investment Program utilized direct loans rather than loan guarantees to carry out its functions. The problem of an implicit interest rate subsidy was addressed in the authorizing legislation that provided that "loans under this section shall be at or near the interest rate otherwise available to the recipient." 22 USC Section 2151f (c)(3)(E). In 1988, the Congress added loan guarantee authority for the Private Sector Investment Program and expressed the intent that the guarantee become the policy instrument used by the program to achieve its developmental objectives. See Private Sector Revolving Fund FY 1990 Annual Report, at page 3.

directly.⁶ Moreover, direct loans at market rates can generate positive interest income for the program to offset against budgeted credit subsidy amounts. Such budgetary savings could greatly increase leverage for the program.

The Omnibus Guaranty Initiative will maintain the basic programmatic features of the Private Sector Investment Program:

- It will be conservatively managed to keep loan guarantee losses to a minimum.
- It will guarantee up to 50 percent of the credit extended to any borrower under the program; the participating local lender will assume the remainder of the risk.
- It will involve only modest amounts of money being provided to borrowers in any particular country.
- It will provide guarantees to banks and other financial intermediaries and seek to change the way that they do business.
- It will seek to relate to larger processes of institutional change, especially by providing positive demonstration effects to show financial institutions the benefits of doing business in new ways.
- Given the modest resources available to the program, especially in its early years, it will attempt to focus on modest improvements, especially in reducing financial transactions costs, that can be sustained even after particular projects have ended.

In her review of the Private Sector Investment Program, Elisabeth Rhyne concludes that,

The process of learning by commercial banks and other private entities to provide more developmentally-oriented credit is clearly important to long run economic growth....The Revolving Fund has demonstrated that a very selective, low- or no-subsidy guaranty mechanism can be an effective component of such a process. The caveats are that loans must be designed with the learning process foremost in mind, and that expectations for immediate development payoffs and dramatic institutional change must be moderated (Rhyne, 1988, p. 21).

⁶ Management Systems International (MSI), Lessons From Experience Volume III: The Uses and Limitations of Projects in Improving Capital Markets for Small Businesses, June 1989, p. 24, notes that direct loans to borrowers tend to be riskier than guaranteed loans to participating lenders. MSI finds that direct loans can be used effectively in selected cases to meet particular development goals.

The Private Sector Investment Program has provided these benefits with respect to financing small business enterprises.⁷ The Omnibus Guaranty Initiative is intended to expand the Private Sector Investment Program to address similar financial market imperfections in other parts of the economies of developing countries.

B. MANAGEMENT AND BUDGET CRITERIA FOR ASSESSING LOAN GUARANTY PROGRAMS

The Office of Management and Budget (OMB) will review a new federal guarantee proposal such as the proposed Omnibus Guaranty Initiative. OMB looks both at benefits and costs of proposed legislation. In considering a proposal for legislation to establish the Omnibus Guaranty Initiative, OMB would consult with other agencies whose program areas might be affected by the proposal or whose expertise is considered valuable in evaluating the proposal. Within OMB, the legislation would be reviewed by the International Affairs Division, the Office of Management, the Budget Review and Concepts Division and by the Economic Policy Division. Outside of OMB, comments would be sought from the Department of State, the Export-Import Bank, the Overseas Private Investment Corporation, and the Treasury. (The concerns of these commentators are outlined in Chapter IV of the report.)

An issue of particular importance to OMB will be the subsidy estimate used to calculate the amount of annual appropriation required for the Omnibus Guaranty Initiative. OMB wants to be sure that assumptions used in making the estimate were conservative. As is suggested in Section D, below, OMB should be shown that the process of screening guarantees on a project-by-project basis and categorizing those guarantees into several risk categories is rigorous and adequate to assure that the subsidy estimates for each category are realistic.

In short, the management and budget criteria for justifying a new Omnibus Guaranty Initiative relate to the benefits and costs of the new proposal. In both respects, the Office of Management and Budget will benefit from an understanding of the Private Sector Investment Program and the way that that program is the basis for the new Omnibus Guaranty Initiative.

C. DEVELOPMENTAL BENEFITS OF THE OMNIBUS GUARANTY INITIATIVE

The Omnibus Guaranty Initiative will be directed towards providing demonstration effects and reducing transactions costs for delivering financial services in developing countries. Because it will be a small program, and because financial institutions -- especially in developing countries -- tend to be conservative in adopting new ways of doing business, it will be conservative in its ambitions.

⁷ See, for example, Management Systems International, at pp. 9-17.

To adopt Rhyne's felicitous phrase, the Omnibus Guaranty Initiative will offer financial institutions in developing countries modest incentives to make a modest amount of change (Rhyne, 1988, p. 19). The initiative will seek to provide financial institutions with experience doing business in new ways and to demonstrate to the general financial community of a developing country that a new way of doing business is somehow more profitable than the traditional way. Modest changes in financial transactions might include use of improved financial instruments, improved borrower disclosures, or even improved terms on loans.

The pattern of financial impediments in the U.S economy that have been overcome by federal credit programs can give some sense of the kinds of market imperfections that can be addressed with demonstration effects.

- The Farm Credit System pioneered the provision of loans on a self-amortizing basis. Until the Federal Land Banks were established in 1916, farmers could only take out mortgages for a period of three to five years, at best, with principal due at the end of that time. The Federal Land Banks began making long-term loans, with maturities of between 20 and 40 years. The new self-amortizing loans, quite common today for a variety of loans and mortgages, permitted farm borrowers to make annual or semi-annual payments of principal along with the interest, to help gradually reduce the mortgage debt.
- The Farm Credit System also implemented early truth-in-lending policies, succeeded in reducing loan fees for consumers, and pioneered variable interest rate loans.
- The Federal Housing Administration pioneered the long-term self-amortizing home mortgage.
- Ginnie Mae, the Government National Mortgage Association, developed the mortgage-backed security as an efficient funding mechanism that permits lenders to avoid significant interest rate risk.
- Activities of Fannie Mae, the Federal National Mortgage Association, and Freddie Mac, the Federal Home Loan Mortgage Corporation, have helped to foster a mortgage insurance industry, to provide a means to spread credit risk on conventional home mortgages, and also helped to promote the title insurance industry, to make home mortgages more easily marketable to secondary market purchasers.

These particular examples must be used with caution. Most importantly, they come from fairly large credit programs compared to the more modest scope intended for the Omnibus Guaranty Initiative. Especially the larger kinds of changes that help to increase a lender's capacity to assess and distribute financial risk are not likely to come about unless the Omnibus Guaranty Initiative provides its benefits in tandem with the financial support of other sources.

In her review of the Private Sector Investment Program, Elisabeth Rhyne stresses the value of providing modest demonstration effects:

Banks have not always had positive attitudes towards programs that require them to change their ways, particularly when they are not convinced of the prospects for profitability. They are convinced that they know the limits of their business and wish to maintain control of any change process (Rhyne, 1988, p. 20).

Rhyne notes that the main shortcoming of a conservative A.I.D. approach is that the program loses its ability to require banks to make radical changes in their ways of doing business. However, she believes that this limitation can be beneficial in the long term. Financial institutions may incorporate modest improvements into their usual business practices after the A.I.D. involvement ends; they would be much less likely to implement more radical changes on an ongoing basis.

A 1989 review of projects supported by the Private Sector Investment Program is emphatic in its conclusion that more costly efforts, involving credit subsidies, could actually be counterproductive.

The higher the credit or risk subsidy provided under a program, the more likely it is that the program will be unsustainable and will harm the development of local financial markets. Provide as little subsidy as possible under credit projects (Management Systems International, 1989, p. 22).

The modest extent of the Omnibus Guaranty Initiative facility also suggests that the program should focus on (1) reducing transaction costs and (2) changing bank perceptions of financial risk involved in serving new kinds of borrowers or otherwise extending the scope of financial services they offer. This is generally superior to an effort to alleviate institutional restrictions, such as interest rate ceilings or legal limitations on making certain kinds of loans, that impede the efficient flow of credit. Because the Omnibus Guaranty Initiative will be modest in size, such alleviation by itself cannot provide enough volume of benefit to be useful to a developing country.

On the other hand, a carefully selected demonstration might be directed towards persuading policymakers to change the legal or institutional impediments that limit financial services in a particular country. Again, this is consistent with the lessons from the Private Sector Investment Program (Management Systems International, 1989, pp. 24-26).

In summary, even though the Omnibus Guaranty Initiative will be a small program compared to other guarantee programs in the federal budget, it can play a meaningful role in promoting financial development. As a guarantee program, it promises to be far superior to traditional development grants in helping to target market imperfections and promote useful change in the provision of financial services in developing countries.

C. COSTS OF THE OMNIBUS GUARANTY INITIATIVE

Under current budget rules, the cost of the Omnibus Guaranty Initiative should be divided into two parts, (1) the amount of the guaranteed loan subsidy and (2) administrative expenses. The latter amount is easily ascertainable and, if permitted by OMB, can be merged with a general A.I.D. appropriation for operating expenses.⁸

The calculation of the guaranteed loan subsidy involves much more consideration. It must be calculated using methodologies that meet OMB requirements, and that use assumptions based upon sound financial reasoning and available empirical evidence. A.I.D. should be prepared to be conservative with its assumptions and to provide a range of possible subsidies under alternative financial conditions.

Fortunately, because of its similar function, the Private Sector Investment Program provides a track record in setting initial credit subsidy estimates for the Omnibus Guaranty Initiative. Unlike other international guarantee programs, the Private Sector Investment Program and its proposed expansion in the Omnibus Guaranty Initiative both use guarantees that are extended primarily to private sector financial institutions rather than to sovereign governments of developing countries. Rhyne does suggest that some Private Sector Investment Program guarantees have been extended to financial institutions that are semi-public rather than private in orientation; this is likely to be true of Omnibus Guaranty Initiative credit as well. For the purposes of calculating credit subsidies, the important element is that both the Private Sector Investment Program and Omnibus Guaranty Initiative involve the credit risk of private institutions rather than the sovereign risk of governments of developing countries.

The credit subsidy amount can be defined as that portion of expected payments by the U.S. government, generally in the form of payout on guarantees for loans that default, that the government does not expect to be offset by collections (for example, from guarantee fees), in present value terms. Credit subsidy amounts are calculated according to cohorts of loan guarantees. That is to say, the annual appropriation for credit subsidy is available to be used for loan guarantees extended in a particular budget year, say FY 1993. The credit subsidy calculation involves a forecast of the present value of future losses to the U.S. government from loans covered by Omnibus Guaranty Initiative guarantees extended during that year. That forecast is expressed in terms of a percentage of total guarantees extended during the year. For FY 1993, for example, the A.I.D. Private Sector Investment Program account estimated a

⁸ Thus, the 1992 budget proposal for the Private Sector Loan Program Account provides that, "...for administrative expenses to carry out guaranteed loan programs, \$1,367,000, all of which may be transferred to and merged with the appropriation for Operating Expenses of the Agency for International Development." Budget of the United States Government, FY 1992 Part Four - 303.

subsidy rate of 4.69% for its loan guarantees and requested subsidy budget authority of \$5.346 million to support a loan guarantee program of \$114 million.⁹

This number is higher than would be expected from the default experience of the Private Sector Investment Program in recent years. It involves categorizing Private Sector Investment Program guarantees into three baskets, (1) low risk, with default rates averaging 1%, (2) medium risk, with default rates averaging 2%, and (3) high risk, with default rates averaging 30%. Because of certain policy requirements, Private Sector Investment Program loan guarantees are now expected to be extended so that 20% fall into the first category, 40% into the second, and 40% into the third basket.

Especially in the beginning of the operations of the Omnibus Guaranty Initiative, it would be useful if the program could avoid being subjected to similar policy requirements to extend higher-risk credit according to a preset formula. It is best to begin in a financially conservative manner so that A.I.D. can gain experience without facing the unfavorable prospect of significant defaults on high risk loans. Assuming that the Omnibus Guaranty Initiative is permitted to start up with nearly all of its loans in the lowest risk categories, the program will be able to keep its credit subsidy percentages low and can increase proportionately the volume of guarantees that can be extended under the program and its limited budget authority.

Because the Private Sector Investment Program is the precursor of the Omnibus Guaranty Initiative, it is helpful to examine some of the data and assumptions used in deriving the FY 1993 subsidy estimate. The Private Sector Investment Program uses a form of the bank-type CAMEL rating¹⁰ to separate loan guarantees to financial intermediaries into low-risk and higher-risk categories.

The Private Sector Investment Program extends guarantees with a term of three years; so long as repayment is current, the borrower may roll over the loan twice more for a total possible term of nine years. The Private Sector Investment Program assumes that the average life of its

⁹ Budget of the United States Government, FY 1993, at Appendix 1, page 230.

¹⁰ Bank regulators in the United States apply a CAMEL rating to summarize the risk profile of a financial institution. A CAMEL rating involves five distinct categories, for Capital, Asset Quality, Management, Earnings, and Liquidity. A financial institution is rated on each of these five categories of risk on a scale from 1 to 5, with a CAMEL rating of 1 being the highest possible level. By contrast, the Private Sector Investment Program uses a 3-tier CAMEL rating system to assess the risk profile of a participating financial institution in a developing country. 3-tier systems are also used by other international lending institutions.

guarantee under these circumstances is about six years. Finally, the program charges fees for the guarantee facilities. These include an up-front facility fee generally set at one half of 1% of the total commitment amount of the guarantee and an annual utilization fee generally set at 12% on the outstanding guarantee amount utilized. This has a present value of slightly less than 2%.

Using an OMB spreadsheet model, A.I.D. budget officials estimate that defaults amount to about 7%, again in present value terms. When the present value of guarantee fees is offset, this becomes a program credit subsidy rate of slightly less than 5%.

True to its reputation, the Private Sector Investment Program has a subsidy rate that is quite conservative by international standards. One study of international small business guarantee programs has found that for most developing countries it is reasonable to assume that a credit subsidy might amount to 10% or even more.¹¹ The difference between such high loss rates and the Private Sector Investment Program rate comes from a policy of careful credit scoring of financial institutions and borrowers before the Private Sector Investment Program provides its guarantee.

This will also be the policy of the Omnibus Guaranty Initiative. Until a track record is established, say over the first five years of the new program, it may be useful to make a conservative estimate of a credit subsidy amount of 10%, with the clear understanding that the Omnibus Guaranty Initiative will attempt to keep its actual loan loss rates significantly below that amount, and preferably below the 5% rate currently estimated for the Private Sector Investment Program.

The Omnibus Guaranty Initiative should be based upon a process, discussed more fully in the next section, that assures OMB that, on a project-by-project basis, (generally meaning extension of a guarantee amount to a participating financial institution rather than to each individual borrower served by that financial institution) the credit scoring committee will conservatively estimate the needed credit subsidy appropriation for that particular extension of credit. So long as the Office of Management and Budget has confidence in the credit scoring process, such an approach would enable the Omnibus Guaranty Initiative to undertake a broad range of kinds of extensions of credit in its first years as a means of gaining experience and establishing a long term track record for the program similar to that which now exists for the Private Sector Investment Program.

¹¹ Agricultural Cooperative Development International, "Small-scale Enterprise Credit Guaranty Facility, Interim Report III on the Experience of Other Guaranty Schemes Worldwide," January 1988, page 65.

D. STRUCTURING THE OMNIBUS GUARANTY INITIATIVE TO MAXIMIZE BENEFITS AND MEET TARGET CREDIT SUBSIDY AMOUNTS

To operate effectively, the Omnibus Guaranty Initiative must attract sound developmental proposals, screen them for developmental benefit and creditworthiness, and assure that the loans are properly serviced by participating lenders that benefit from the A.I.D. guarantee. The A.I.D. Office of Investment, that currently administers the Private Sector Investment Program, would also be responsible for the Omnibus Guaranty Initiative. Similar to the Private Sector Investment Program, the Omnibus Guaranty Initiative would use a combination of A.I.D. field missions and the A.I.D. central bureaus and private sector institutions to generate guarantee proposals.

The proposed projects and participating financial institutions would be screened by an internal investment committee such as the Private Sector Investment Program now utilizes. The internal investment committee review will include (1) analysis of audited financial statements and confidential portfolio quality data, (2) credit checks (with major banks, the World Bank, and other international lenders), (3) in-person assessment of the lender's management and operations, and (4) review of lending policies and plans of the institution with respect to the sector for which guarantees are being extended. The internal investment committee will also review the projected developmental impact of each proposed guarantee project, with special attention to the quality of analysis specifying the kind of market imperfection intended to be overcome.¹² After initial screening by the internal investment committee, tentatively acceptable project proposals will also be reviewed by an external advisory board.

Finally, approved projects must be carefully controlled, audited, and evaluated. As with the Private Sector Investment Program, participating financial institutions must have sufficient internal controls and management capacity to assure quality servicing of each guaranteed loan. Also, as indicated earlier, Omnibus Guaranty Initiative guarantees to any one borrower should be limited to 50% of the cost of the activity to be funded.

The requirement that lenders take at least 50% of the loan risk will help assure that, so long as they have the requisite managerial capacity, they also have the necessary incentive to service loans well. A.I.D. will need to monitor actively the quality of lender servicing, require reports by participating institutions and borrowers, and conduct periodic audits and evaluations of the financial status of each project and its developmental impact.

¹² As the MSI evaluation of the Private Sector Investment Program stresses, "Project design must begin by identifying which constraints are preventing credit from being provided ... Identifying constraints requires a careful examination of the local financial market and government intervention in this market" (MSI, 1989, p. 11, emphasis omitted).

As the Omnibus Guaranty Initiative staff gains expertise, appropriate adjustments in program structure may be called for. For example, once a conservative track record has been established, the Omnibus Guaranty Initiative may want to include a number of higher-risk projects that would require above-average credit subsidy estimates in return for the possibility of above-average developmental effects.

ANNEX 8

**DESCRIPTIONS OF BILATERAL INSTITUTIONS IN
KEY DONOR COUNTRIES**

ANNEX 8

DESCRIPTIONS OF BILATERAL INSTITUTIONS IN KEY COUNTRIES¹

FRANCE

BFCE (Banque Francaise du Commerce Extérieur)

BFCE is the French's government's mechanism for financing export credits that have maturities greater than two years. The government participates in such financing in order to stabilize credits financed in French francs or in a foreign currency. BFCE functions in two manners: on its own behalf, and on the behalf of the government, as a stabilization mechanism or as a direct supplier of credits which have maturities that exceed seven years.

CCCE (Caisse Centrale de Cooperation Economique)

Described in detail in Chapter III.

COFACE (Compagnie Francaise d'Assurance pour le Commerce Extérieur)

COFACE, which has capital totalling FF 30 million, is a semi-public company which operates a public credit insurance service and provides performance guarantees on all trade transactions. Guidance for COFACE comes from the Ministry for Economic Affairs, Finance and the Budget. Specific functions include: coverage of short-term commercial risks (credits up to three years) from its own account; coverage of all other risks on behalf of the government (these other risks are short-, medium- and long-term political risks, commercial risks in credits with maturities over three years, and "extraordinary" risks, i.e. those that exceed a certain amount per transaction and per buyer). COFACE's transactions normally do not compete with comparable private sources of insurance and finance. COFACE coordinates especially closely with BFCE.

DREE (Direction des Relations Économiques Extérieures)

DREE is a division of the Ministry of Cooperation, but also closely coordinates with the Ministry of Foreign Affairs, under which it was formerly located. DREE is responsible for the overall policy framework under which other French agencies operate as well as for project administration (selection of personnel, project negotiation, contracts, and follow-up).

¹ Information for this Annex is derived primarily from Development Aid and The Export Credit Financing Systems in OECD Member Countries.

GERMANY

AKA (Ausfuhrkredit-Gesellschaft mbH)

Today comprised of 54 commercial banks, AKA is a private company established in 1952 as a syndicate to finance export credits. It offers three types of loans for export credits: lines A and C, which are offered at fixed or variable interest rates and drawn from member banks' resources. Funds for line B loans are obtained through rediscounting from the Bundesbank and are offered at variable and fixed rates (fixed rates are offered only for maturities of up to two years).

DEG (Deutsche Finanzierungsgesellschaft für Beteiligungen in Entwicklungsländern GmbH)

DEG promotes and fosters German commercial investments in the private sectors of developing countries, with the aim of helping German companies to adjust to changes in the worldwide economy. In general, DEG will not take a greater participation in any project than does the German investor. It also assists in arranging joint ventures between German and developing countries' companies. In 1985, DEG and KfW agreed on a cooperative arrangement under which they would work together to strengthen developing countries' private sectors.

GTZ (Deutsche Gesellschaft für Technische Zusammenarbeit)

GTZ administers the technical cooperation component of German development assistance. Technical cooperation receives high priority within the German program. It is usually grant-funded and consists of sending experts to developing countries. These experts produce studies that detail the state of technological, economic and organizational know-how and capabilities and describe how to improve capabilities in these areas.

Hermes (Hermes Kreditversicherungs-Aktiengesellschaft) Treuarbeit AG (Treuarbeit Aktiengesellschaft)

Hermes, a private insurance corporation, is the leading partner of the consortium that provides and manages the insurance business in the name of and for the account of the German government. Treuarbeit AG, a corporation in which public entities hold a minority stake, is the other member of the consortium. Hermes is permitted to evaluate and take decisions on export contracts valuing up to DM 2 million; for larger contracts, the Federal Ministry of Economics has decision-making power, but consults with the Ministries of Finance, Foreign Affairs, and Economic Cooperation, and receives advice from the Bundesbank, KfW and AKA.

KfW (Kreditanstalt für Wiederaufbau)

KfW is described in detail in Chapter III.

JAPAN

Export-Import Bank of Japan

ExIm of Japan, under the auspices of the Ministry of Finance, finances exports and imports and promotes direct investments in developing countries. ExIm of Japan offers project loans, commodity loans, and debt relief, generally on soft terms. It extends export credits in conjunction with commercial banks, focusing primarily on large sales of capital goods or complete plants. ExIm of Japan typically finances 70% of supplier credits and 60% of direct loans.

JICA (Japan International Cooperation Agency)

JICA is the technical assistance arm of the Japanese foreign assistance program. Primary JICA activities include: dispatching "development survey teams", which conduct surveys and compile reports that are used as basic data for assessing the financing of future projects; feasibility studies; research on the resource availability for a potential project; and financial assistance and technical assistance for private Japanese companies that work in certain sectors of developing countries. JICA's assistance is generally grant-funded.

OECF (Overseas Economic Cooperation Fund)

OECF is described in detail in Chapter III.

ACRONYM LIST

UNITED STATES

- AID: Agency for International Development
- EXIM: Export-Import Bank of the U.S.
- OPIC: Overseas Private Investment Corporation
- TDP: Trade & Development Program

JAPAN

- EXIM of Japan: Export-Import Bank of Japan
- JICA: Japan International Cooperation Agency
- OECF: Overseas Economic Cooperation Fund

GERMANY

- AKA: Ausfuhrkreditgesellschaft mbH
- DEG: German Finance Company for Investments in Developing Countries
- GTZ: Deutsche Gesellschaft fur Technische Zusammenarbeit

CANADA

- CIDA: Canadian International Development Agency
- EDC: Export Development Corporation
- IDRC: International Development Research Center

FRANCE

- BFCE: Banque Francaise du Commerce Exterieur
- CCCE: Caisse Centrale des Cooperation Economique
- COFACE: Compagnie Française d'Assurance pour le Commerce Extérieur
- DREE: Direction des Relations Economiques Extérieures

ITALY

- CICS: Interministerial Committee on Development Cooperation
- MCRF: Mediocredito Central--Revolving Fund
- SACE: Sezione Speciale per l'Assicurazione del Credito all'Esportazione

UNITED KINGDOM

- ATP: Aid & Trade Provisions
- CDC: Commonwealth Development Corporation
- ECGD: Export Credit Guarantee Department
- ODA: Overseas Development Administration

ANNEX 9

**ANNOTATED OUTLINE OF
THE REPORT'S FINDINGS AND CONCLUSIONS**

ANNEX 9

ANNOTATED OUTLINE OF THE REPORT'S FINDINGS AND CONCLUSIONS

This annex briefly summarizes the findings and conclusions reached by the team. The annex does not present new information, but instead highlights the key points of each chapter of the report. The parentheses which follow each phrase or paragraph indicate the location of detailed information about each finding. For instance, "(II,B,1)" indicates that the reader should refer to Chapter II, Section B, part 1.

1. The *rationale* for increased capital projects assistance is strong:
 - Developing countries lack the infrastructure necessary to encourage and sustain vibrant market-oriented economies. Moreover, infrastructure is critical to meeting basic human needs; without it, people's access to clean water, food, health services and education remains limited. (II,B,1)
 - American firms have the technical expertise to address many of the key infrastructure problems facing developing nations. In many areas of infrastructure development, the United States holds a comparative advantage over its foreign competitors. However, due to lack of competitive finance, American firms are at a distinct disadvantage vis-a-vis their competitors. Capital projects assistance can promote long-term trade benefits and economic competitiveness for the United States. (II,B,2)
 - Credit reform allows U.S. agencies to leverage limited resources, resulting in greater impact with fewer budgeted funds. (II,B,3)
2. Other industrialized nations *link aid and trade* through the following mechanisms:
 - A focus on capital projects; (II,D,1)
 - The use of concessional finance; (II,D,2)
 - A unified and coordinated approach to promote business and development (II,D,3); and
 - The use of informal tying mechanisms. (II,D,4)

3. The U.S. government also has an array of *resources* for financing capital projects.
 - The U.S. Trade & Development Program finances pre-feasibility and feasibility studies -- the first stage in the process of capital project development. The Export-Import Bank facilitates export financing of U.S. goods and services -- an important part of the construction phase. OPIC finances businesses in developing countries which have significant equity and management participation by U.S. businesses. (II,C,2-4)
 - Each of these institutions has an important mandate to fill in the project finance cycle. However, none of them fulfill the objectives that A.I.D. now holds for its Capital Projects Fund. (II,D)
4. There is *a distinct gap in U.S. financing* -- a gap which does not exist in other countries' programs and which puts U.S. firms at a competitive disadvantage in winning capital projects contracts for which they would provide superior technical expertise.
 - None of the U.S. government institutions focus on the engineering and design phase of the project cycle, as do many of the other bilateral donors. It is during this part of the project cycle where detailed specifications for procurement are developed. Financing the engineering and design portion of the project finance cycle can be an effective way of ensuring that foreign assistance generates domestic procurement. (II,D)
 - None of the U.S. government institutions provide a project finance facility for capital projects in developing countries, as do the other major bilateral donors. Eximbank has recently created a "pilot" project finance facility; however, its mandate is not development-oriented. OPIC provides project finance, but generally not for major infrastructure projects. (II,E)
 - Lastly, none of the U.S. government institutions work extensively with the World Bank and other multilateral donors to parallel finance capital projects, as do the other major bilateral institutions. (II,E)
 - A.I.D. can help to fill these gaps through the Capital Projects Fund. (II,F)
5. Assistance agencies use *three major approaches to financing capital projects*.
 - The *bilateral approach* entails: a predominant focus on capital projects; nearly exclusive involvement with public sector-sponsored projects; high concessionality of terms; intensive coordination among ministries and agencies; significant regional concentration of projects; and carefully selected cofinancing with multilateral agencies. (III,A)

- The *multilateral approach* is characterized by: a significant dedication of resources towards capital projects; nearly exclusive involvement with public sector-sponsored projects; market rate terms for all but the poorest countries; and large amounts of cofinancing. (III,B)
 - The *private sector* approach differs greatly from the others through its: dedication to acting as a catalyst for private sector funds; more limited regional concentration of resources; relative lack of involvement with capital projects; and strict adherence to market rates of finance. (III,C)
6. All of these approaches are relevant to the design of the A.I.D. Capital Projects Fund. Along the lines of the bilateral approach, A.I.D. intends to employ at least two "screens" in the selection of potential projects: its traditional development screen, as well as a trade screen. Only those projects that have the potential to provide sound development benefits and generate long-term trade benefits for the U.S. would be eligible for funding. (IV, Introduction)
7. In order to use credit effectively, the Capital Projects Fund must also have the following features (IV, Introduction):
- The ability to meet OMB requirements for new federal loan and guarantee proposals;
 - The ability to derive realistic and acceptable subsidy estimates;
 - The ability to generate other sources of funds, particularly private sector funds, for co-financing capital projects; and
 - The ability to comply with OECD guidelines on tied aid.
8. The Office of Management and Budget is charged with reviewing all new federal loan and guarantee proposals. *OMB will have three primary concerns in its review of proposed legislation* (IV,A):
- That the proposal meets OMB's internal standards for new legislation, including a clear basis for the use of credit authority;
 - That the proposal is methodologically sound, and does not duplicate or contradict other agencies' efforts; and
 - That the proposal's subsidy estimates are determined with rigor.

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9. ***Subsidy estimates*** reflect that portion of expected payments by the U.S. government, generally in the form of payout on loans or guarantees for loans that default, that the government does not expect to be offset by collections, in present value terms.
- For the Capital Project Fund, subsidy estimates must be derived using OMB's forward-looking approach (IV,B);
 - For direct loans to sovereign entities, subsidy estimates are in the range of 2.66% to 63.54% in the least risky ("A") countries to the most risky ("F") countries, respectively (IV,R,1); and
 - For guaranteed loans to sovereign entities, subsidy estimates are in the range of 2.09% to 48.23% in the least risky ("A") countries to the most risky ("F") countries, respectively. (IV,B,1)
 - For loans and guaranteed loans to private entities, subsidy estimates will generally be higher than those for sovereign loans unless the project is specifically structured to minimize the country risk. (IV,B,2)
10. ***A.I.D. can leverage its limited resources*** by using loans and loan guarantees rather than grants to finance capital projects. However, there are also certain instances in which A.I.D. may wish to use grants in lieu of credit. This is particularly true for the least developed countries, as well as high-risk countries. (IV,C,1-3)
11. ***A.I.D.'s Capital Projects Fund must also comply with new OECD rules*** (IV,D), which:
- Prohibit tied aid for relatively wealthy countries (those having annual per capita income of more than \$2,465 in 1990) (IV,D,2);
 - Mandate a minimum concessionality of 50% for tied aid credits to the least developed countries (IV,D,2); and
 - Strictly limit tied aid to middle income countries. (IV,D,2)
12. ***A.I.D. prefers to extend credit to private sector entities rather than sovereign borrowers*** for two reasons:
- A.I.D. does not wish to exacerbate the debt situation of developing countries. (V,A,1)
 - In the past ten to fifteen years, A.I.D. has increasingly focused on developing and fostering developing countries' private sectors. Directing funds toward private sector entities involved in capital projects development would complement this trend. (V,A,2)

13. Despite these convictions, *capital projects still are developed predominantly by public sector agencies*. However, *the trend is toward increasing private sector involvement* in such ventures. (V,B)
14. The team outlined *two scenarios for A.I.D.'s use of credit authority*: a private sector approach, and an approach which involves public and private sector lending. *This discussion will focus on the public-private lending option*, since this is the option chosen by the A.I.D. officials who commented on the draft. (VI,Introduction)
15. *The key characteristics of the public-private lending model are:*
 - *A 75/25 split between public/private lending* -- meaning that A.I.D. would be focusing much more heavily on private sector projects than other bilateral donors, but doing so to an extent that is realistic given current private sector involvement with capital projects. (VI,A,1a)
 - *The types of project the Capital Projects Fund might finance* will be driven by developmental need and merit; U.S. comparative advantage; and U.S. trade leverage. (VI,A,1b)
 - *The dimensions of the portfolio* are anticipated to be \$400 million in new commitments per year. Of this, approximately \$100 million would be devoted to participation in private sector projects, and approximately \$300 million to participation in public sector projects. (VI,A,1c)
 - *A.I.D.'s project partners* under this model would be the World Bank, other multilateral and bilateral assistance agencies, Eximbank, Trade and Development Program, and, for private sector projects, the U.S. business community. (VI,A,1d)
 - *The countries A.I.D. would lend to* under this model will fall primarily in the risk categories "B" through "D". A.I.D. may wish to use grants to promote capital projects development in less creditworthy countries. (VI,A,1e)
 - *A.I.D.'s terms of assistance* would be determined by four objectives or beliefs: the need to keep the program's subsidy value below 20% (and the concomitant need to use concessional finance sparingly); A.I.D.'s wish to lend on terms that do not aggravate the debt situation of developing countries; the need to comply with OECD guidelines; and the U.S. business community's belief in the necessity of concessional finance to "level the playing field" vis-a-vis foreign competitors. (VI,A,1f)

- A.I.D. would use market rates for those countries which are eligible for World Bank credit, and would consider using softer terms (within the scope of OECD regulations) for countries which are eligible for IDA loans. (VI,A,1f)
16. *The subsidy estimates for a hypothetical public-private sector lending portfolio are:*
- For a 75/25, public/private portfolio with no concessional finance, the calculated subsidy value is 16.07%. (VI,B,2)
 - For a 75/25, public/private portfolio with limited concessional finance, the subsidy value is 20.07%. (VI,B,2)
17. The team identified two general principles which should underlie *the process of credit scoring* which A.I.D. employs in screening capital projects. (VI,B,3b)
- Each project should undergo a credit screening process that is isolated from the screening process for other criteria, such as development or trade benefits or the need to support a particular country. The actual credit score must stand alone, unaffected by any other criteria. (VI,B,3b)
 - A.I.D. must assemble a credit screening unit which will have the technical capacity to satisfy OMB. (VI,B,3b)
18. The team developed *specific recommendations for credit risk analysis*, as follows (VI,B,3c):
- A.I.D. should attempt to ensure consideration of a broad array of projects, by consulting with a wide variety of entities, including USAID missions overseas, U.S. companies, and bilateral and multilateral lending agencies.
 - An internal A.I.D. committee should screen and score projects for development, trade and other program benefits.
 - An investment committee of government officials should screen the creditworthiness of those projects which pass the above review.
 - Those projects which pass this review should be forwarded to an outside, independent committee of experts in international finance and capital projects funding. This Outside Investment Committee (OIC) would score projects as high-risk, medium-risk, and low-risk.
 - A.I.D. officials would review this score, but their authority to overturn the OIC's decision would be limited.

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19. A.I.D. must also demonstrate to OMB that it can *carefully administer its credit portfolio*, including development of: appropriate accounting systems, timely and comprehensive loan information systems; and rigorous credit management policies and procedures. (VI,B,4)
20. The team identified a number of *institutional considerations* that are requisite for a successful Capital Projects Fund. Specifically:
 - The Capital Projects Fund will entail intensive collaboration with project partners, including the U.S. business community, and multilateral, bilateral and other U.S. government agencies, many of which are located here. (VI,C,1-1a) By being based in Washington, A.I.D. can take advantage of this proximity of partners, but still depend on its worldwide mission presence for identification of other projects. (VI,C,1-1a)
 - A.I.D. will need to develop or tap certain skills and functions that it may not have needed or used recently because of its declining involvement with capital projects. (VI,C,2)
21. *A.I.D. may wish to utilize both internal and external expertise* to fulfill the responsibilities of operating a capital projects facility. (VI,C,3) The team estimated the total internal staff to conduct the public-private sector model to be 21 individuals; the team also described the components that comprise internal administrative expenses. (VI,C,4-5)
22. The team concludes that *it is feasible to use credit authority to finance capital projects and meet the criteria and requirements set by A.I.D.* (VI,D,3)