PN-ABJ-774

ISN 74451

Prefeasibility Study of an AID Guaranty Of Local Currency Bond Issues By Municipal and Housing Authorities

Final Report

February 12, 1990

Office of Government Services
1801 K Street, N.W.
Washington, DC 20006
Telephone 202 296 0800

Price Waterhouse

February 12, 1990

Mr. Sean Walsh
Office of Housing, Room 401
State Annex 2
Agency for International Development
Washington, D.C. 20523-0214

Dear Mr. Walsh:

Price Waterhouse is pleased to present the Final Report of the 'Prefeasibility Study of An A.I.D. Guaranty Of Local Currency Bond Issues by Municipal and Housing Authorities.' This report should present the background and discussion necessary to provide input for policy decisions regarding the offering of a U.S. Government guaranty for local currency bonds. The report was prepared by the Intrados Group under the auspices of FMIRI and AID/PRE's Financial Sector Development Project (FSDP) and has been reviewed by Price Waterhouse, prime contractor under FSDP.

The study finds that such an activity could accomplish A.I.D. policy objectives in a variety of areas: it could stimulate capital market development, reverse capital flight, encourage decentralization, and stimulate administrative and fiscal reform of local governments.

We have enjoyed being of service to you on this important and interesting project, and look forward to working with you again in the future.

Sincerely,

J. Richard Breen
FSDP Project Director

PREFEASIBILITY STUDY OF AN AID GUARANTY OF LOCAL CURRENCY BOND ISSUES BY MUNICIPAL AND HOUSING AUTHORITIES

Prepared for

Office of Housing and Urban Programs

U.S. Agency for International Development

by the Intrados Group

Under the Auspices of the Financial Sector Development Project

and

FMIRI

Table of Contents

Executive Summary iii

Introduction 1

Chapter 1--The U.S. Municipal Bond Market 6
- 1.1 Autonomy of the States
- 1.2 Tax-Exempt Status
- 1.3 Recent Changes in the Municipal Bond Industry
- 1.4 Innovations

Chapter 2--Credit Enhancement 15
- 2.1 Letters of Credit
- 2.2 Bond Insurance
- 2.3 State Bond Banks

Chapter 3--The Environment for Municipal Bonds in Developing Countries 21
- 3.1 Administrative, Legal, and Economic Factors That Affect the Potential for Municipal Bonds
- 3.2 The Precedents for Municipal Bonds and Similar Instruments in LDCs
- 3.3 The Use of Municipal Development Funds

Chapter 4--Targeting Local Investors 26
- 4.1 Potential Investors
  - 4.1.1 Institutional Investors
  - 4.1.2 High-Income Investors
  - 4.1.3 Small Savers
  - 4.1.4 Foreign Investors
- 4.2 Factors of Demand
- 4.3 Competing Financial and Real Investments

Chapter 5--Issuing LDC Municipal Bonds 32
- 5.1 Bolstering the Administrative and Fiscal Accountability of Localities
- 5.2 Regulatory, Legal, and Tax Issues
- 5.3 Setting Appropriate Interest Rates and Maturities

Chapter 6--Technical Assistance 36
- 6.1 Administrative and Fiscal Reform
- 6.2 The Establishment of a New Capital Market Instrument
- 6.3 Identifying Appropriate Municipalities and Local Authorities
- 6.4 Identifying Appropriate Projects and Bond Mechanisms
- 6.5 Transfer of Technology and the Development of Local Intermediaries
- Exhibit A--Standard & Poor's Rating Profile for International Municipal Bonds
- Exhibit B--Selected Financial Ratios for International Municipalities

Chapter 7--The Role of AID in Guaranteeing LDC Municipal Bonds 45
7.1 Selecting Projects That Meet AID Policy Objectives
7.2 Addressing the Risks Associated with Offering a Guaranty

Conclusion--Why AID Should Undertake This Project 50
1. Stimulates Local and National Economies
2. Activates Alternative and Efficient Sources of Funding for Municipalities and Local Authorities
3. The Development of Local Institutions and the Process of Decentralization
4. A Catalyst for Financial Market Development
5. The Mobilization of Domestic Savings
6. The Prevention of Additional Capital Flight
7. A Stimulus for the Transfer of Legal and Financial Expertise

Appendix A--The Municipal Securities Rulemaking Board 58

Appendix B--A Description of Municipal Finance Institutions in Selected Developing Countries 60
Jordan: The Cities and Villages Development Bank
Kenya: The Local Government Loan Authority

Appendix C--Potential for Foreign Investors in Kenya 65

Bibliography 66

List of Persons Consulted 68

Executive Summary

Municipalities in developing countries have long depended on outside funds from central and subnational governments for their funding. This reliance has fostered administrative and fiscal inefficiency. At the same time, the resources of multilateral and bilateral aid agencies have been stretched to the utmost. Now that these sources of revenue are receding, municipalities are faced with the dual problem of reforming and strengthening administrative and fiscal institutions and discovering alternative sources of funding. At the same time, the resources of multilateral and bilateral aid agencies have been stretched to the utmost. This preliminary study examines the possibility that local currency municipal bond financing can help municipalities achieve significant reform while meeting their needs for capital improvement and fostering urban economic recovery.

U.S. Experience

- In the United States, municipal bonds have proven to be an extremely heterogeneous instrument, adopted to a variety of economic conditions and purposes. In developing countries, they can play a vital role in channeling much needed investment to local infrastructure, housing, and industrial development.
- The prevalence of municipal bond funding in the United States reflects the autonomy of state and local governments from the central government. This situation is not present in most developing countries, nor do they possess our two-hundred-years' history of municipal bond finance. Thus, the experience of the United States should serve as an example, but not a pattern, for the introduction of bond finance to Third World municipalities.

Key Issues in Establishing Municipal Bonds in Developing Countries

- *Administrative and fiscal accountability.* One way to strengthen financial management in local government departments is to reorganize revenue producing divisions as public utilities with clear financial objectives and sufficient autonomy to enable them to implement these objectives free from outside interference. The chief advantage of using such an organization in issuing municipal bonds is that reform efforts could be concentrated on the specific sector of local government responsible for the project to be funded by the bond. These entities could ultimately be privatized.
- *Regulatory issues.* An essential prerequisite of a municipal bond market is the establishment of bodies--both official and private--to supervise the structuring and trading of municipal securities. A central mission of the regulatory body would be to ensure that there is adequate information disclosed about the project and the issuer.
- *Legal issues.* Municipalities must have the legal right to issue bonds and institutional investors must have the power to buy them. In addition, bondholders must have the ability to seek recourse in the event of a default.
- *Tax issues.* To the extent that assets held in international banking centers are usually not subject to local taxes, tax exemption might not prove attractive. In some cases, however, it may have appeal for local institutional investors. Whether the municipal bonds are tax exempt or not, they should be treated under the tax regime in ways that make them equivalent to other government debt, although their risk/reward structure need not be identical.
- *Interest-rate fluctuation.* Long-term securities in developing countries are particularly vulnerable to interest-rate risk, and competitive yields can quickly turn negative. Given the uncertain conditions in developing countries and the natural caution of developing country investors, one

solution is to limit maturities of municipal or local issues to the short-term. Bonds convertible to equity offer another solution, as are variable interest-rate bonds, minibonds, and bonds with a yearly put feature.

The Need for a Guaranty

- o A strong guaranty will be necessary, at least in the starting stages of the project, to make these instruments attractive to local investors.
- o A guaranty would also decrease the cost of borrowing to localities and reduce the burden on the taxpayer. Thus, the guaranty would provide an incentive to municipalities to consider this form of financing.
- o An AID guaranty, bearing the full faith and credit of the United States government, would be an almost certain inducement to local investors. The size of this guaranty is a matter for further investigation. It would not be prudent for AID to assume the entire risk for the project, nor would it be consistent with AID's policy objectives. Discussion with investors in developing countries will be useful in ascertaining the minimum acceptable guaranty.
- o Market efficiency is best promoted by having local investors assume some of the risk, while other portions of the risk can be assumed by local coguarantors that would insure a smaller percentage of risk than AID, but who would be the first to be called upon in case of default.

Characteristics of Projects to be Funded

- o In order to minimize risks during the introductory period, it may be that AID will want to concentrate, at least in the beginning, on those specific revenue producing projects that can best pay their own way.

- Given the existence of a dependable revenue stream consistent with the requirements of the specific project, bonds may be issued for housing, infrastructure, and industrial development.
- Presumably, AID would be willing, with the cooperation of industrial corporations and private entrepreneurs, to assume additional risk for the sake of a project that meets its priorities. For example, AID could provide guaranties for water and sewage treatment plants serving urban areas that include commercial and industrial sites as well as low-income residential neighborhoods.
- Initial projects funded under this program should be fairly straightforward. The complexity of the project will depend on the size of the developing country economy and the existence of functioning capital markets.

Why AID Should Undertake This Project

- Investment in municipal bonds by nonbank and commercial bank investors can boost GNP and in the case ~~on~~ of commercial bank investors expand the money supply.
- By providing a guaranty, AID activates alternative and efficient sources of funding for municipalities and local authorities at a time when central government transfers and assistance from multilateral and bilateral agencies are receding.
- Because administrative and fiscal reform would be a prerequisite for many municipalities wishing to issue bonds, the AID guaranty would strengthen local institutions.
- Strong autonomous municipal governments contribute to the process of decentralization. The introduction of municipal bonds funding in developing

countries creates an avenue to replace centralized political control by local control and managed approaches by competitive market forces.

- Municipal bonds provide a means of mobilizing domestic savings and directing these resources efficiently to meeting essential housing and infrastructure.
- An essential effect of the AID guaranty would be to provide a catalyst for the progressive evolution of developing country financial markets. The introduction of an extremely adaptable instrument like municipal bonds will help give these markets more depth and more liquidity, increasing the alternatives open to investors and augmenting the efficiency of the financial system.
- A U.S.-backed municipal bond program could prove attractive to developing country investors who routinely place their funds overseas, thus reversing or retarding capital flight.
- The introduction of municipal bonds requires legal and financial expertise. Initially, municipalities, with AID assistance, would tap U.S. sources of this expertise. The ultimate goal of the program, however, would be to help transfer the legal and financial knowledge to private law firms, underwriters, and banks in developing countries.

Introduction

The need for urban infrastructure in developing countries is more critical than ever before. The last twenty years have witnessed a massive migration from the countryside in the Third World, turning previously small communities into overcrowded cities and cities into sprawling megalopoli. Although the rural population has moved to the city in search of better living conditions, the resulting congestion, ironically, has undermined its chances of achieving a better standard of living. The World Bank reports that 23 percent of the urban population in developing countries has no potable water within 200 meters. Housing, education, and economic development have been hamstrung by the lack of basic services such as electricity, sewage, water, and transportation. As the migration continues, the solution to these problems only becomes more complex and more costly.

At the same time, central government funds that municipalities relied on to support infrastructure and housing projects are drying up. Fiscal deficits have caused inflationary pressures and external imbalances and have contributed to the foreign debt burden that most developing countries are struggling to carry. Deficit reduction is now recognized as an imperative for developing countries. A side effect of deficit reduction is that public sector investment in developing countries is at the lowest point of any time since the mid-1970s. A World Bank study of investment trends in thirty developing countries shows that public investment has declined from a high of 10.7 percent of GDP in 1980 to 7.2 percent in 1988. Total investment, from both private and public sources, has also fallen from 23.8 percent of GDP in 1980 to 18.9 percent in 1988.

External sources of revenue cannot be expected to fill the gap left by the withdrawal of government grants. The burden of providing the infrastructure and housing that is already needed far exceeds the resources of the multilateral and bilateral lending agencies, even if they thought it prudent to attempt such a role. At the same time, foreign banks are loathe to provide new money for any long-term projects in developing countries. The result is that, without adequate infrastructure, industrial and economic development of many Third World countries has faltered as manufacturers scrap expansion plans or relocate in regions providing a greater array of services. There have not even been sufficient funds to maintain existing infrastructure. A recent World Bank policy study that reviewed road conditions in eighty-five developing countries showed that, during the past two decades, an estimated $45 billion worth of road infrastructure had been lost due to inadequate maintenance.

The problem of local infrastructure development can productively be viewed from the perspective of decentralization. Intergovernmental transfers have their place in distributing expenditure responsibility throughout a country. Grants are often appropriate because the benefits of projects undertaken by individual localities often spill over to other jurisdictions. Grants can also even out disparities among the fiscal capacities of different localities. However, excessive reliance on grants, especially when grants comprise a large portion of local government funds, can be disruptive. In such circumstances, grants decrease the autonomy of local jurisdictions and encourage the fiscal and administrative inefficiency that is endemic to many municipalities in the developing world. Local governments come to view grants as substitutes for local taxes and user charges and as a license to employ large numbers of people regardless of need. An analysis of Nigerian efforts in 1976 to reform its local government system revealed that increased grants to localities served as an disincentive to local revenue effort. Local taxes, such as the property tax, remained grossly underdeveloped, and some states decided to suspend or abolish important revenue sources. For example, the number of property tax payers in Ibadan City dropped from 27,000 persons in 1975 to 8,650 persons in 1979. Other Nigerian cities experienced similar declines. Such grants contribute to the distortion of local priorities, as the debate on the merits of categorical grants, this is, grants restricted to particular uses, has emphasized. Such grants all too often become instruments of political control.

The inability of central governments to continue previous levels of direct funding to municipalities gives local authorities the occasion to correct the problems caused by centralization. Indeed, local governments must develop their own sources of revenue or flounder. One such source of funding, prevalent in the United States, is the municipal bond. The underlying object of this study is to determine if municipal and local bonds are a feasible instrument for developing countries.

It is clear from the beginning, however, that attempts to replicate the U.S. system of municipal bonds in developing countries are misguided. Developing countries often lack the political and cultural traditions that supported such instruments in the United States, and they are less able to bear the consequences of default. Municipal bonds must be carefully tailored to the developing country environment to avoid such contingencies.

If such bonds can be devised, the introduction of this instrument into the financial environment of developing countries may provide other benefits besides raising capital for specific projects. For instance, they may serve as an incentive for municipal reform and institution building. Not only may the introduction of municipal bonds stimulate administrative and financial discipline on the part of existing local bodies, they may lead to the creation of independent statutory authorities charged with the responsibility and resources to undertake specified tasks. The creation of agencies taken for granted in the United States--such as sewer authorities, the Massachusetts Water Resources Authority, airport authorities--have been essential in financing and supplying infrastructure. A related structure that may evolve is the metropolitan agency, which through independent bonding and financing can address urban problems that spill over local boundaries. The financing and creation of the Port of New York Authority is a prominent example.

Besides these benefits, municipal bonds may mobilize domestic savings and strengthen capital markets as well as encourage the movement of the informal sector into the formal economy. Attempts should be made to structure these bonds to maximize these benefits. Clearly, the introduction of municipal bonds presents an opportunity for creative thinking.

The thrust of this study, therefore, is to discuss the economic and financial feasibility of local currency municipal bonds, to suggest the ways in which bonds may be adapted to the needs of developing countries, and to identify the conditions that will determine these adaptations. For instance, municipal credit institutions, which presently exist in some developing countries, may be adapted to serve as municipal bond banks. While in the past, these organizations served as pass-through agencies for central government funds, they might be revitalized as issuers or underwriters of bonds on behalf of a number of small localities.

The role of the Agency for International Development in this process is yet another focus of this study. We shall evaluate whether the promulgation of a local currency municipal bond meshes with AID's policy objectives. As a guarantor, the Office of Housing and Urban Programs has long experience with its Housing Guaranty Program. AID's proposal to offer a local currency guaranty could provide many of the same advantages without the foreign exchange risk. This study will identify what these advantages might be.

This brief report is designed to define the issues raised by an AID guaranty for a local currency bond, not arrive at definitive answers. It is a preliminary study, a sketch in general terms based on extensive research in Washington and conversations with the staff of such organizations as the World Bank, the International Finance Corporation, Standard and Poor's, the Municipal Securities Rulemaking Board, the Government Finance Officers Association, Enhance Re, Emerging Market Investors Corporation, the Urban Institute, J.P. Morgan & Co., and Bankers Trust, as well as with attorneys, investment bankers, and agency officials concerned with local finance.

Nonetheless, our investigations have led to three principal conclusions to be tested through research in the field.

First, municipal bonds can be adapted to conditions in developing countries if mechanisms can be devised to address interest-rate risk. There are already a handful of projects in the developing world presently funded by municipal or local bonds.

Second, municipal bonds foster AID's development objectives in a number of ways:

- they can foster the development of local institutions and further the process of decentralization;
- they can serve as a stimulus for the transfer of legal and financial expertise;
- they can serve as a catalyst for financial market development;
- they can mobilize domestic savings;
- and they can prevent additional capital flight.

Finally, an AID guaranty, bearing the full faith and credit of the United States government, would be critical in attracting investors for many local currency municipal bond issues. Such a guaranty would have the additional benefit of decreasing the cost of borrowing to localities, thereby reducing the burden on the taxpayer.

If field work reveals that bonds issued by municipalities and statutory authorities are financially and economically feasible, AID's guaranty would help establish a useful precedent for developing countries. AID's role would be to demonstrate the feasibility of financing local authority projects through the domestic capital market and to bolster the development of indigenous expertise in accounting and municipal management, as well as in the rating, underwriting, and insuring of municipal and local bonds.

Chapter 1--The U.S. Municipal Bond Market

1.1 Autonomy of the States

An important feature of the development of municipal bonds in the United States during its formative period was the relative autonomy of the states. This autonomy was embedded in an article of the constitution and, generally speaking, respected by the national government. To cite one example, Thomas Jefferson objected strongly during his term as president to proposals that the United States fund large public works projects. Although Jefferson ultimately lost his battle with Congress on this point, strong sentiment for state and municipal financing of public works led to the development of a vigorous state and municipal bond industry . During its formative period and well into the twentieth-century, the largest source of public debt in the United States was the states, not the federal government. The states were particularly active in developing transportation facilities, and there were thousands of state-aid bonds issued to provide funds to build canals, turnpikes, and railroads, the infrastructure of our developing economy. In 1843, the first year for which there are reliable records, the combined state debt totaled $232 million, and municipal debt reached $28 million. By comparison, the national debt was only $20 million.

The history of the municipal bond industry in the United States shows that growth in volume is closely correlated with business cycles and that during economic downturns, significant numbers of municipalities have difficult meeting the interest payments on their bonds. The exact date of the first municipal bond is not known, but they appeared as early as the eighteenth century. The City of New York began to issue securities in 1812, and by 1837-38 it had sold its first water supply bonds. Boston had a bonded debt of $100,000 in 1822, which increased to more than $1.5 million by 1840. The two decades between 1820 and 1840, however, mark the real beginning of municipal bonded indebtedness in the United States. The 1840s and 1850s saw a steady and rapid rise in debt, stimulated by the commencement of free public education in many states. The rapidly growing cities built waterworks, paved streets, and undertook other improvements. An increasing percentage of this debt was municipal, not state.

By 1860, aggregate local debt stood at $200 million, almost as much as the debt of the state governments. The stagnation in the amount of state debt was caused by a series of defaults and near defaults by state governments. After the depression of 1837, many state constitutions were revised to prohibit or restrict the issuance of additional state debt, temporarily putting an end to much state aid for canals, turnpikes, railroads, and other internal improvements.

Stimulated by the great westward expansion after the Civil War, public works financing continued undiminished. By 1870, the Bureau of the Census reported a total municipal debt of $516 million. Thus, in the thirty years for which we have reliable figures, local debt grew vigorously. Local debt was only about one-tenth the size of state debt in 1840; by 1870 it was more than a third larger.

While the larger public works projects in the last four decades of the nineteenth century, such as the construction of the transcontinental railroads were undertaken by private financiers who received massive subsidies from the federal government, funding for local projects--many of which were occasioned by the arrival of the railroad--was provided by municipalities through the use of municipal bonds. Heavy municipal investments were made with the goal of assuring or encouraging the routing of the new roads to or through particular areas. Moreover, it was hoped in many cases that the railroad, barge line, or other transportation company stocks which were purchased with the proceeds of the bonds would provide dividends sufficient to meet debt service, plus some surplus for general government functions.

During the Panic of 1873 and in the serious depression that followed, many governments found themselves in trouble, and numerous bond issues went into default. It has been estimated that during that crisis, there was at least some delay in servicing about one-fifth of all local government debt outstanding. As a way of averting similar crises in the future, restrictions on local government debt and borrowing were written into many state constitutions. Despite these restrictions, the thirty years following 1870 witnessed continuing growth in local debt. By the turn of the century, the billion dollar mark had been exceeded (while state-funded debt was practically unchanged from its level of 1843). Thereafter, until the mid-1930s, outstanding local debt doubled about each ten years. By 1932, it stood at $16.4 billion.

After the First World War, both the states and municipalities greatly increased their bonded debt. There were several reasons for this. In the first place, during the war many of the states lifted the restrictions that they had previously placed on the issuance of bonds. Secondly, the popularity of the automobile created a demand for better roads. Thirdly, the standard of living in the postwar era was considerably higher than it had been, resulting in increasing demands for municipal services. In some cases, however, the states and municipalities overextended themselves, and difficulties began to develop during the twenties, particularly where substantial special assessment debt was floated to finance improvements for prospective subdivisions.

With the onset of the depression of the 1930s, trouble spread. In many communities, assessed values decreased sharply, property tax collections were delayed, and tax delinquency increased markedly. At the same time, local governments carried the financial brunt of rising public welfare needs. Moreover the current resources of some local governments were lost or frozen, at least temporarily, in closed banks.

At the worst of this period, some 3,200 local governments fell behind in paying principal or interest on debt. This encompassed about 350 counties, plus 850 cities and towns, and similar number of school districts and special-purpose districts. It was estimated, however, that the defaulting of the 1930s affected only about half as great a proportion of local government indebtedness as had the default in the 1870s. In addition to the actual defaults, a large number of governments fell behind in the rate of accumulation of sinking fund reserves that normally would have been set aside during the period.

During the 1930s, there was virtually no change in the total amount of local debt outstanding; new loans about equaled retirement of debt. During the Second World War, there actually was a drop in municipal debt because the states and municipalities could not obtain labor and material for many new projects. Local government debt fell from $16.7 billion in 1941 to $13.6 billion in 1946.

Since 1946, local debt has been rising at a significant rate. It would have risen even faster except for the major change in the method of financing improvements in new urban developments. New practices were instituted in subdivision control ordinances that required developers to include the cost of many of the public improvements in the cost of housing and other developments. Prior to the war, these improvements had been funded through either general purpose or special assessment local government debt.

There have been a number of countervailing factors that offset this shift in responsibility to developers. During the late seventies, a high level of support for local programs came from state grants. This changed during the Reagan era, as grants were cut back. By 1986, state and local governments were raising over half their capital funds from bonds, and local infrastructure bonds were commonly backed by development fees. There was a spurt in bond activity in 1985 and 1986 just before the passage of the Tax Reform Act of 1986, which imposed a variety of restrictions on certain categories of municipal bonds. The law retained the tax exemption for public purpose bonds, but dramatically curtailed tax increment financing projects and industrial revenue bonds. The law also placed severe restrictions on various long-standing municipal financing techniques, including arbitrage and advanced refunding. Total bonds issued in 1985 reached $204 billion. This figure dropped to $98 billion in 1987. It is important to note, however that the amount of bonds issued in 1988, $104 billion, though significantly below the 1985 figure, is the largest volume for any year before 1985.

The last two decades have witnessed a significant shift in the composition of the bond market in the United States. There has been a major change in the types bonds offered, in the mix of borrowers, and in the composition of bond buyers. Traditionally, government projects have been financed by general obligation (GO) bonds. In the late 1960s, GO bonds represented about 75 percent of all tax-exempt bonds sold. By the mid-1970s, however, the GO bond's share of the market had been eclipsed by that of the revenue bond. This shift reflects the belief that those who benefit directly, such as homeowners who receive a low-rate mortgage loan or drivers who use a new road, should be solely responsible for the repayment.

During the late 1970s, the mix of borrowers also changed. Paralleling the shift from GO bonds to revenue bonds has been the shift from the general government to the statutory authority, a special purpose public corporation that usually does not have the power of taxation but does have the authority to float bonds. In 1983, statutory authorities, such as the Port Authority of New York and New Jersey, accounted for over one-half of all long-term tax-exempt borrowing.

A final change during the late 1970s and early 1980s was that banks and insurance companies began to reduce their holdings in municipal bonds. Individual investors and bond funds took up the slack. By 1985, bond funds and unit trusts accounted for almost 30 percent of total outstanding state and local debt. Since the 1986 tax law removed many of the incentives for bank and insurance company purchasers, retail buyers have played an even greater role in the market. In both 1986 and 1987, banks, property and casualty insurance companies and other institutions withdrew $20 billion from the tax-exempt securities market. The emergence of the household sector as the primary buyers of tax-exempts has been a major factor in the development of innovative financing techniques because individual investors are far more heterogeneous in their investment objectives than institutions.

The U.S. bond market is expected to grow throughout the next decade. Pent-up infrastructure needs should drive this growth. It is anticipated that, given widespread resistance to tax increases, state and local governments may resort to bonds to meet cash-flow needs.

1.2 Tax-Exempt Status

The outstanding feature of U.S. municipal securities is their tax-exemption privilege. The interest income from qualified municipal securities is exempt from federal income taxes; in addition, state law usually exempts municipals from income taxes levied by the state of issuance. Capital gains on municipal securities are not tax exempt, unless the security is issued at a discount from par. The advantage of tax exemption to issuing municipalities is straightforward. It keeps their interest cost low relative to interest rates paid by other borrowers. The savings can be passed on to local citizens in the form of lower local tax rates.

Interest income from state and local government securities has been exempt from income taxation by the federal government by statute since 1913, the year in which the Sixteenth Amendment, which institutes an income tax, was ratified. The issues of exemption can be traced back to *McCulloch v. Maryland* (1819). In this case, the note issuing power of the second Bank of the United States was subject to a special tax by the State of Maryland. This tax was declared unconstitutional, and the case helped establish the doctrine of reciprocal immunity. This doctrine, in its simplest form, declares that the states cannot abridge the powers of the federal government nor the federal government the power of a state by taxation. The issue of tax exemption, both for the salaries of state and local officials and for income from state and local bonds, returned to the courts several times during the nineteenth century. After the Sixteenth Amendment was passed in 1913, the initial tax legislation enacted under this constitutional authority specifically exempted both these sources of income from federal taxation. This situation has changed dramatically in recent years. Coming on the heels of the Tax Reform Act of 1986, the April 1988 Supreme Court decision in *South Carolina v. Baker* stripped municipal bonds of the constitutional protection that had been invoked for almost a century. The court declared that the Federal government may tax interest on state and local bonds. It is uncertain, however, when Congress will choose to act on this power.

The tax-exempt feature has been controversial for many years because it is seen as a government subsidy for high-income investors. This is because the value of the exemption privilege increases with the investor's marginal income tax rate. As a result, tax exemption has become the single-most important feature in the U.S. for determining the composition of the investment pool for municipal bonds. In addition to high-income individuals, the principal sources of demand for municipals in the United States have been commercial banks, property-casualty insurers, and large nonfinancial corporations.

1.3 Recent Changes in the Municipal Bond Industry

In addition to the Congressional changes in the tax-exempt status of municipal bonds, there have been other significant changes in recent years. Any attempt to structure bonds for LDC countries should include an analysis of the consequences of these changes.

The group of underwriters has been expanded. In June 1988, the Supreme Court declared that commercial banks could underwrite all forms of municipal revenue bond. In July, Citibank was the lead manager for $35.9 million worth of tourist development tax special revenue bonds for a convention center in Broward County, Florida. Many commercial banks are poised to move into this area.

There is also a movement for fuller disclosure. The massive bond default by the Washington Public Power Supply System in 1983--the largest local bond default in history--has prompted the Securities and Exchange Commission to push cities and counties to make detailed disclosure statements available to prospective investors. Investors have charged that WPPSS official statements contained wildly optimistic cost and construction schedules.

Presently, fifteen percent of all municipal bond issues are sold without an official statement, and one-third of the official statements that are produced do not get distributed until after investors have paid for the bonds.

1.4 Innovations

An important rationale for the introduction of municipal bond financing to developing countries is the heterogeneous nature of this instrument. Bonds can be adopted for all manner of economic conditions and purposes, as the steady stream of innovations in the U.S. municipal bond market attests. While these variations often cannot applied directly to developing countries, they nonetheless are instructive.

Bonds have been devised for new purposes. In 1988, the state of Illinois created a $93 million general-obligation issue packaged as zero-coupon bonds carrying a $220 million face value and designed to be marketed to retail customers. The Illinois College Savings Bonds have several features that made them attractive to small investors: they are noncallable, exempt from federal and state taxes, issued in maturities from five to twenty years, and priced at just $1,000 to $3,500. As an additional incentive, investors may earn a bonus of $100 to $400 if the money is used to finance a college education within the state. The issue was oversubscribed by 300 percent and led the state to issue a second $225 million bond ($506.7 million face value) in October 1988, as well as inspiring North Carolina, North Dakota, Oregon, Washington, Hawaii, Connecticut and other states to issue similar bonds.

There have also been new forms of issues. Variable-rate issues are particularly appealing in times of inflation. Short-term variable-rate issues are generally cheaper to the receiver than fixed-rate issues, but the issuer has to sell put bonds and face the possibility that the holders will tender the entire issue. It would thus be forced to remarket the entire issue at the prevailing higher price. The Tucson Electric Power Company, in issuing $121.4 million of tax-exempt industrial development bonds in January 1988, included a Dutch auction mechanism. The bonds were originally issued for thirty days at 5.25 percent interest. Each month, bondholders can choose one of several options: they can sell their paper, hold it, hold it only if bids come in above a certain yield, or buy more. The structure is modeled after the auction-preferred stock that is used widely in the corporate world. Interest rates for the first nine auctions averaged around 5.3 percent, compared with the 8 percent the utility would have had to pay on fixed-rate paper. The buyer gets a slightly higher interest rate than the seven-day demand-note rate.

Selected Innovative Municipal Bonds for 1988

Illinois College Savings Bonds	$93 million General Obligation zero-coupon bonds (series of October 1988) maturing 1993 to 2006, yielding 6.3 percent to 7.9 percent $225 million General Obligation zero-coupon bonds (series of October 1988) maturing 1993 to 2006, yielding 6.4 percent to 7.7 percent.
Pima County (Arizona) Industrial Development Authority (Tucson Electric Power Co.)	$121.4 million industrial development lease -obligation revenue bonds, originally issued for 30 days at 5.25 percent but auctioned monthly at varying rates.

Another instrument that has gained in popularity in recent years is the minibond. By decreasing the denomination of municipal bonds below the standard $5,000 issuers can tap a portion of the retail market that has generally been excluded from directly purchasing tax-exempt bonds. Municipal sale of minibonds began to gain wide public attention in the late 1970s. In September 1978, the City of East Brunswick, New Jersey conducted a sale of $529,000 in $100, $200, and $500 minibonds. Aside from the smaller denomination size, the principal difference between minibonds and traditional municipal bonds is the way the bonds are sold. There is no underwriter. The city sells directly to the investor. In cases where a jurisdiction has small but current capital needs that require bonding, a minibond sale may be appropriate.

Chapter 2--Credit Enhancement

Various mechanisms have been established in the United States to lower the costs of borrowing to localities, while protecting the buyers of municipal bonds. These include letters of credit, bond insurance, and state bond banks. Commercial banks play an important role in the municipal bond industry by offering lines of credit and letters of credit. Lines of credit are used primarily in the short-term market for governmental units of superior credit standing that need only temporary funding to meet financing needs. This type of agreement provides only liquidity support for the issuer's debt and can be subject to numerous provisions. Generally, the line cannot be used if the borrower is in default on its obligation.

2.1 Letters of Credit

An important form of credit enhancement, rather than liquidity support, is the letter of credit (LOC). LOCs are commitments directly between the bank and the investors (or trustees) for the account of the bank's customer, the issuer. In this arrangement, the trustee or investor has direct claims against the bank in the event that debt service is not paid in full and on time. Furthermore, nearly all LOCs are irrevocable and, hence, constitute a direct guaranty of the borrower's obligation by the bank, regardless of subsequent actions by the issuer. Generally, the term of an LOC is shorter than the life of the bonds--terms run from five to ten years, with provisions included for future renewals at the bank's option. The credit rating of bonds issued with LOCs is enhanced somewhat, but is made with the assumption that the LOC may not always remain in effect. Furthermore, the financial condition of the commercial banks issuing the LOCs are also taken into account.

In addition to credit facilities, commercial banks in the United States provide other devices designed to alleviate various types of risks that investors or issuers may encounter.

Banks, for a fee, engineer interest-rate guards (that put maximums on interest rates paid in the case of variable-rate securities); investment agreements (that guarantee the spreads between the cost of borrowed and invested funds); and interest-rate swaps (that convert variable-rate to fixed-rate obligations or vice-versa). These devices can neutralize or hedge various types of risk.

2.2 Bond Insurance

A form of credit enhancement that has become more important in the 1980s is municipal bond insurance. Municipal bond insurance serves three purposes. Insurers protect investors against default. When the Washington Public Power Supply System defaulted in 1983, a portion of the bonds had been guaranteed by the American Municipal Bond Assurance Corporation (AMBAC). Holders of these bonds continue to be paid interest and are assured of receiving full principal at maturity. Payments are made according to the original maturity schedule. Second, insurers help local government raise capital. Municipalities that purchase insurance can offer lower interest rates than they otherwise would because the insurance raises their credit rating. The savings in financing costs more than offsets the cost of the insurance premium, and this savings can be passed on to local citizens through lower taxes or user fees. Third, insurers bring stability to the market by insisting that issuers maintain conservative funding practices and debt structures. By insisting on careful underwriting at the outset and by continuing to review the issues they insure, insurance companies have raised the level of credit analysis and public disclosure.

In 1971, AMBAC was formed to insure municipal bonds. Shortly after, five major property and casualty insurers formed an association to guarantee municipal credits. This is now the Municipal Bond Investors Assurance Corp (MBIA). Initially, the municipal insurance business grew slowly. By 1975, less than 2 percent of total new municipal issues were insured. But several major credit collapses or near collapses, both in the municipal bond market and elsewhere, increased the popularity of the insured bonds and spurred the growth of the industry. Both the absolute size of issues insured and the percentage of total issues guaranteed increased dramatically during the period between 1975 and 1985. By the end of 1987, there were six monoline companies. They had together covered a par value of over $100 billion of municipal bonds, while the percentage of new issues insured had increased to the 16 to 21 percent range. The total debt service of principal and interest guaranteed to the public exceeded $250 billion. A seventh monoline company was formed at the end of 1988 and two reinsurance companies, Enhance Reinsurance Company and Capital Reinsurance Company, are in place to add capacity and spread risk.

The Association of Financial Guaranty Insurers, comprised of ten companies representing virtually all the financial guaranty insurance written in the United States, reports that the leading municipal bond insurers in the U.S. wrote nearly $300 million in direct written financial guaranty insurance premiums during the first nine months of 1989. Insured principal and interest payments combined amounted to $55.3 billion for the nine-month period. For the full year 1988, municipal bond insurers reported total direct writings of $401 million.

Premiums are scaled to risk, and the insured borrower's underlying credit quality must meet certain standards to be eligible for insurance. In practice, the borrower must be rated equivalent to Baa or BBB or better from the rating agencies. Premiums range from .75 percent to 2 percent of the combined principal and interest due over the life of the issue and are payable in full at the beginning of the policy.

There has been considerable innovation in the area of bond insurance. Bond insurance has been used to "front end" LOCs from low-rated or unrated banks, with banks providing a liquidity agreement and the insurance company providing surety insurance to cover longer-term liquidity and credit risk. Another recent innovation is the insurance of debt-service reserve. Under this program, the insurer will insure a portion of the interest and principal, allowing the issuer to dispense with a debt special reserve.

2.3 State Bond Banks

Local governments often have the opportunity to enhance their credit quality and improve the marketability of their debt by availing themselves of state credit assistance. The major types of state assistance are guaranties, debt-service subsidies, and bond banks and similar institutions. The simplest and most straightforward form of credit assistance is a state guaranty of local government debt, pledging the state's full faith and credit. Essentially, this means that the local debt is tantamount to the state's own direct debt in terms of credit quality. Because of constitutional constraints and states' concern about their own credit rating, direct state guaranties are very rare. In extending credit assistance, states generally attempt to insulate their own credit quality by applying certain conditions on local governments that are backed up by a state guaranty. These conditions might include liens on revenues of a local project financed through the bond, on the general obligation (taxing power) of the local government unit, on state assistance payments to the locality, and on a debt-service reserve.

A weaker form of obligation than a direct guaranty is a moral obligation backing of a borrowing. Under this arrangement, the state is not legally bound to assume responsibility for repayment of loans. Rather, should there develop a deficiency in the debt-service reserve fund, the state governor is required to submit a bill to the legislature that would appropriate funds to redress this defect.

The most popular form of credit assistance involves the creation of state-sponsored borrowing entities, such as a special-purpose lending authority or a general purpose bond bank, that finance local governments through the purchase of their obligations. The authority collects several local bond issues and consolidates them into a single bond issue that is sold in the national bond market. Typically such entities have no taxing power and exist solely for purposes of facilitating debt issuance by governmental units. Although the state may provide some direct subsidies to particular types of borrowers or for certain borrowing purposes, the interest rates paid by the lending authority generally form the basis for what the local borrower must pay.

To enhance the marketability of the lending authority's obligations and lower the costs of borrowing, some form of state-sponsored credit support is often provided so that the authority has a credit rating close to that of the state. In addition, the authority, by pooling smaller issues into a big one, is able to enjoy certain economies of scale, such as lower costs of issuance (printing, legal costs, etc.) per dollar of borrowing and typically the lower rates of interest that large issuances are able to attract.

Most state authorities are geared to financing particular types of projects (such as housing, hospitals, school facilities, economic development, and water and sewer projects), but some are relatively open-ended. Municipal bond banks, which are designed to finance a broad range of local government functions are usually aimed at helping small governments.

Chapter 3--The Environment for Municipal Bonds in Developing Countries

3.1 Administrative, Legal, and Economic Factors That Affect the Potential for Municipal Bonds

As is the case for any innovation, especially involving changes in the financial community, there are significant obstacles to be overcome in issuing municipal bonds in developing countries. The administrative shortcomings of localities that are caused by their lack of financial autonomy are many. They often lack clear financial objectives, maintain poor records (a problem exacerbated by shortages of qualified accountants), and practice weak financial planning and budgeting. Often capital expenditure budgets are not clearly separated from recurrent expenditure budgets. They also exert weak control over expenditure and have weak auditing procedures.

These problems are compounded in many countries by poor revenue collection efforts. It is commonplace in developing countries to find that evasion reduces by at least half the revenues collected by local agencies providing housing and infrastructure services and in some instances this figure rises to 85 percent. For example, fare evasion on Bangladesh Railways (which is operated as a government department) amounts to about 20 to 30 percent of potential revenues, while shortfalls in the revenues of many airports operated as government departments may amount to as much as 50 percent of potential revenue. In both cases, the employees have little incentive to collect the revenues payable, since they are paid directly to the Treasury and the poor collection performance has no effect on the annual expenditure plans.

Second the legal structure is inadequate. The development of clear legal rules concerning the economic rights and obligations of the different parties to the issuance of municipal bonds is an essential element in creating viable and attractive bonds. Investors and insurers require clearly recognized, effective means of judicial redress in the event of a default. In some cases, especially where municipalities and local authorities lack the authority to issue bonds, a comprehensive legal framework is needed.

In some developing countries, the conflict between local customs and the legal system imposed during colonial rule has created confusion. This weakness is often compounded by weak judicial administration. However, in some countries such as Thailand and Korea, where governments have imported and adapted foreign legal systems on their own initiative, the legal system functions in a more transparent way.

Third, the prospect of sharp rises in inflation can diminish the attractiveness of long-term bonds. While the rates of inflation in some developing countries have been relatively stable, inflation, especially in the highly indebted countries, has become increasingly volatile, difficult to predict and difficult to control. Between 1983 and 1987, inflation in these countries averaged 120 percent, but triple and quadruple digit inflation has been in evidence in Mexico, Peru, Argentina, and Brazil. In order to succeed, municipal bonds in developing countries must contain a mechanism to compensate both for anticipated rates of inflation and for sudden spikes in inflation: unless investors are certain that they can expect a positive return on their investment, they will seek other alternatives to the prospective bonds, no matter what guaranty they bear. Mechanisms to compensate for inflation are familiar to AID through the use of mortgages in the Housing Guaranty Program.

3.2 The Precedents for Municipal Bonds and Similar Instruments in LDCs

Despite these problems, the use of municipal bond financing in developing countries is an option that requires careful consideration. The current need for capital to fund municipal and local improvements must be filled, and bond financing poses an alternative that has been used successfully in the United States during its evolution from developing country to industrial power. Indeed, there is precedent for such activities in developing countries themselves. During the late nineteenth century and early twentieth century, Argentina and other South American nations issued bonds to finance railroads, ports, roads, markets, and municipal improvements. By 1930, slightly more than one-tenth of Argentina's indebtedness was in the form of municipal bonds. Bonds were designed for the international as well as the internal markets. Bonds marketed to foreign investors were payable, most often in pounds, dollars, or marks, at overseas banks. Internal bonds were denominated it gold or paper pesos.

Argentine bonds issued before the 1930s were backed by traditional sources of revenue and had other features associated with U.S. municipals. For instance a 3 million pesos bond for street paving, issued by the City of Cordoba, was backed by a special fee on private properties benefiting from the project, payments from a tram company, and funds from the state government. A City of Buenos Aires bond used to fund inexpensive housing for workmen was secured by a first mortgage on the houses constructed. The bonds were issued in amounts ranging from 500 to 5,000 pesos. The interest and principal from another Buenos Aires municipal was exempted from "all present or future Argentine taxes."

More recently, there have been periodic efforts to use bond issues to fund infrastructure projects. In 1978, the Indonesian government established the P.T. Jasa Marga, a toll road corporation, to manage tolled arterial roads. Among its sources of finance are domestic bond issues sold in the domestic capital market; income from the road tolls is allocated to service and redeem the bonds. Since P.T. Jasa Marga is a state-owned enterprise and the bonds are mainly purchased by other state-owned companies and pension funds, the corporation's bonds are essentially competing with other government bonds, rather than mobilizing additional private sector savings. Nonetheless, the availability of such bonds--and the fact that they can and sometimes are purchased by private subscribers--does contribute to development of the domestic capital market and helps to tap private savings. Without such bonds, investors have few options for investment outside of regular government bonds and real estate.

In the Republic of Korea, a rather different bond financing mechanism has evolved to tap domestic savings of transport users. Taegu City government is planning to support the city's expenditure plans (which include major urban transport improvements), by issuing Won 39 million of highway bonds carrying an interest rate of 6 percent compounded into a single balloon payment at the end of the six-year loan term. The purchase of bonds is mandatory for all residents registering motor vehicles in the city; the bonds thus represent a form of compulsory savings certificate requiring potential users of public transport infrastructure to finance it through bond issues. A similar system is used to finance telephone lines. Users of these new lines are required to purchase a bond that is used to pay for the construction of the line. This bond is essentially a deposit which is repaid without interest when the customer moves.

3.3 The Use of Municipal Development Funds

The landscape for municipal bond finance is not without organizations that might be pressed into use to serve as financial intermediaries. An example of one such institution is the municipal development fund. During the past thirty years, municipal credit institutions spread rapidly through Africa, Asia, and Latin America. Typically, these institutions had two broad objectives. The first was to raise additional resources for public investment. Although these institutions were initially supported with an injection of funds from a donor and a counterpart contribution, usually larger, from central or state governments, they hoped to tap domestic financial markets through bond and debenture issues. They also hoped to increase the resources available for public investment by encouraging client municipalities to practice more effective revenue administration and cost recovery. The second objective was to introduce sound methods of project evaluation. This could be done by developing appraisal criteria and enlarging local capacity for sound financial analysis of the projects financed by the credit institutions themselves or developed by local governments.

Most municipal credit institutions have not functioned according to plan. Many act as pass-through institutions for central government funds, and whatever appraisal capacity they may possess is often undermined by government controlled supervisory boards. (See Appendix B for information about municipal funding banks in Jordan and Kenya.) Typically, they are highly politicized: a vehicle for central government policy rather than local government initiative. It is not surprising that repayment discipline is weak among the municipalities that avail themselves of their services, nor is it surprising discipline is not generally enforced through sanctions. Municipal development banks in Morocco and Kenya tolerated substantial arrearages and even made loans to borrowers in default.

While these institutions hardly function as they were intended, they could, if set up on a truly autonomous basis, play an important role in the development of municipal bonds in developing countries. Reforming them would be preferable to creating new credit institutions. In fact, independent municipal credit banks are ideally placed to serve as a buffer between central and local government and could be used to insert market discipline in the process of municipal finance. Furthermore, they could assume, depending upon the circumstances, any one of the variety of tasks required to issue municipal bonds. They could provide technical and financial advice to municipalities. They could underwrite the bond. They could back the bond. Or they could issue bonds on behalf of a pool of small municipalities and administer these funds for these groups. In this sense, they would be acting much like state bond banks in the United States. Eventually, such municipal credit institutions could be privatized.

Chapter 4--Targeting Local Investors

4.1 Potential Investors

A guaranty of the U.S. government would make municipal bonds attractive to a number of different groups. The identity of these groups will vary from country to country depending on the size of their capital markets and the nature of the projects being funded. Once a group is targeted, bond issuers can tailor the specific characteristics and terms of the bond to meet the needs of this group.

4.1.1 Institutional Investors

Institutional investors such as insurance companies, pension plans, and social security funds are particularly suitable for large issues with long recovery periods. Involvement of these large investors would help establish municipal bonds as an alternative vehicle to existing public and private securities. This is in itself an important gain, as it will broaden the local capital market.

There are, however, potential drawbacks to targeting institutional investors. To the extent that the central government directs these institutional investors to participate in a municipal bond offering, the dependency of municipalities on the central government remains intact. Furthermore, while the issuance of municipal bonds would increase the variety of instruments available on local capital markets, it would not necessarily mobilize additional private sector savings.

Nevertheless, institutional investors have at times been the mainstay of the municipal bond market in developed countries, and it would be difficult in the long run to sustain an active municipal bond market without their participation. In developing countries, they may play a useful interim role by providing an alternative to direct central government financing of local projects. Instead of the central government borrowing from institutional investors or taxing them to finance local projects, local governments issuing bonds can obtain financing directly from such investors.

In addition, participation of institutional investors is critical to the eventual development of secondary markets for local government bonds. These institutions can pump resources into markets and can manage their investments over long periods. Indeed, in developed economies, they are ultimate buyers and holders of long-term investment grade paper precisely because their liabilities are long-term. In some developing countries where long-term bonds are possible, institutional investors can fill a critical funding niche because their requirements match well with the long cost-recovery period of certain capital investments funded by these instruments.

Government policies will, in the first instance at least, largely determine the extent to which municipal bond issues will attract local institutional investors. As noted, the tax exemptions afforded municipal bonds in the United States is a major policy action (whether or not couched in constitutional terms) supporting state and local government borrowing. The secondary capital market for housing has also enjoyed federal government guaranties and other kinds of support over the years. For example, the Federal National Mortgage Association (Fannie Mae) began as a government-owned institution that has, with the full support of the federal government, become privatized.

In the LDCs, such tax incentives may or may not be necessary. However, the central government will, at a minimum, have to help establish investment incentives that place investment in municipal bonds on an equal footing with central government securities. There are many ways to accomplish this, and it will be important to provide technical assistance in reviewing the options. For example, one frequently considered approach would be to allow a certain amount of municipal bond investment, along with government bonds, to qualify as legal reserves for various types of institutional investors.

4.1.2 High-Income Investors

High-income investors might be another targeted group, especially if an important auxiliary goal of the program were to deter capital flight. One of the reasons that high-income investors move their money to accounts in the United States is that they are guaranteed by the U.S. government. An AID-backed bond would provide many of the same benefits. Local elites also possess the knowledge and willingness to participate in a secondary bond market and, to the extent that they comprise a vocal constituency, would act as a deterrent to default.

4.1.3 Small Savers

A third group of potential investors are small savers and local entrepreneurs, many from the informal sector. Short-term minibonds or similar instruments could be sold in small denominations to attract these investors. Targeting this group would mobilize domestic savings and channel resources of the informal sector into formal instruments, improving overall liquidity. The experience of the United States reveals that small investors in bonds prefer projects that they benefit from directly. In these instances, interest from the bonds offsets user charges and other fees from the project that they may experience. In addition to serving in their capacity as local investor as a deterrent to default, small investors who were also user groups might have an added incentive to ensure that the project is implemented correctly.

In attracting small investors, developing country municipalities could learn from the example of the city of Virginia Beach. Virginia Beach recently raised $2 million through the sale of municipal minibonds to finance several local highway projects. The Virginia Beach minibonds mature in three years and will earn 5.5 percent interest (tax exempt). Selling in $500 denominations (as opposed to the usual municipal bond purchase, which requires a $5,000 purchase), the minibonds were limited to a maximum of ten per investor. The bonds sold out a day prior to the expiration of the sale. One of the goals of the minibond issue was to offer a vehicle that would be attractive to first-time investors. Seventy-four percent of the investors lived in Virginia Beach.

Small investors have been successfully recruited for the capital markets in developing countries. The most noteworthy case has been the privatization of the National Commercial Bank by the Jamaican government in December 1986. Under an innovative allocation scheme, preference was given to individuals who purchased a small number of shares in the event that there was an excess demand for the offering. Even without oversubscription, no one party was allowed to purchase more than 7.5 percent of the shares. The J $$90.6 million (U.S. $16.5 million) public offering, by far the largest of its kind in the nation's history, was 170 percent oversubscribed and attracted more than 30,000 individual applications from Jamaican citizens and institutional investors. On the first day the stock traded on the Jamaican stock exchange, it rose to a 67 percent premium.

4.1.4 Foreign Investors

There are three groups of foreign investors that might be willing to participate in municipal bond offerings. First, foreign companies--particularly the large Japanese trading companies--might be willing to participate in these instruments. Presently, according to World Bank officials, many Japanese contractors working in Asia try to mobilize the revenue for their projects in the local Asian markets. They have found that if they try to finance the scheme using foreign funds, they are liable to stimulate government opposition because there will be a net outflow of foreign exchange. Furthermore, governments are often unable or unwilling to provide a guaranty to foreign investors. Kumagai Gumi, the Japanese firm that built the Bangkok expressway, approached large local financial institutions to put together a financial package.

Under a scheme in which the financing is done by the local government, the trading companies could use their foreign exchange to buy bonds which would, in effect, finance the projects that they were building. The bonds would give them a way of managing their foreign currency exposure.

Second, Japanese banks or other financial institutions might invest in these instruments as a way of carrying out government policy of supporting Third World development. Finally, multinational companies with blocked funds or excess local currency might wish to invest them in municipal bonds to address their foreign exchange risk. (See Appendix C.)

4.2 Factors of Demand

Demand depends on a numbers of factors. A U.S. government guaranty--even a partial guaranty--will stimulate demand by reducing credit risk. Bonds backed by this guaranty will be more attractive than comparable securities with similar yields.

Second, investors have a tendency to support projects that they benefit from. Projects that can be clearly tied to the needs of local constituencies can expect support from these groups. This suggests that attention be directed toward involving the private sector in projects to the greatest extent possible, with the objective of developing public and private partnerships for urban economic development.

Demand can also be seen as a function of familiarity. If a pilot municipal bond program proves to be a success, it is likely that a follow-up program would also be successful. In order to capitalize on the momentum established by the pilot program, other bonds issued within a given country should, at least initially, have a similar structure. A uniform structure would provide investors with a basis for comparing several issues.

4.3 Competing Financial and Real Investments

In many developing countries, the principal financial instrument that would compete with municipal bonds is central government bonds. In these instances, municipal bonds would serve the useful purpose of spreading liquidity to the local sector. In countries with a more developed capital market corporate stocks and bonds would also offer competition. Care should be taken, therefore, that the introduction of municipal bonds does not disrupt these fledgling markets. Because the municipal bonds that would be issued as part of this program would bear at least a partial guaranty of the U.S. government, they might be seen as a preferential debt instrument. Consequently, attention should be paid to devising municipal securities that provide an alternative, not a substitute, to existing securities.

One obvious way to do this is to reduce the interest rate to a level commensurate with the reduced risk implied by the guaranty. Another way would be to market the bonds to investors, most likely small investors, who are not currently involved in the local capital markets. Such a strategy would bring new capital into the market rather than redistribute it away from the government and private sector. This is clearly another area in which on-site assessment is necessary.

Chapter 5--Issuing LDC Municipal Bonds

5.1 Bolstering the Administrative and Fiscal Accountability of Localities

There are several key issues that must be addressed in formulating local currency municipal bonds for developing countries. As already indicated, the first is bolstering administrative and fiscal accountability of localities. One way to strengthen financial management in government departments is to reconstitute them, all or in part, as public utilities with clear financial objectives and sufficient autonomy to enable them to implement these objectives free from outside interference. Such a process has been successfully used for railroads, ports, and airports in developing countries.

The chief advantage of using such a structure in issuing municipal bonds is that reform efforts could be concentrated on the specific sector of local government responsible for the project to be funded by the bond. Local government could set up such discrete entities or empower existing entities. In addition to establishing a tight administrative and financial framework for the utilization of assets, a public corporation can effectively subject housing and infrastructure to specific user fees.

By creating entities that operate according to standard accounting conventions, local governments can strengthen financial discipline and provide the information necessary for effective management. By explicitly linking revenues and expenditures, such entities would have the incentive to maximize revenue mobilization, control costs, and make realistic plans based on anticipated revenue. Such plans include the issuing of revenue bonds. Eventually, such public corporations could be privatized. Such a strategy of reform carried out through discrete entities with narrowly defined responsibilities, whether they be reconstituted or newly created, argues for the use of revenue bonds rather than general obligation bonds.

Coupled with the reform of municipal institutions is the reform of existing financial intermediaries such as municipal credit banks. In addition, commercial banks should be encouraged to back municipal issues through LOCs or serve as underwriters.

5.2 Regulatory, Legal, and Tax Issues

There are also regulatory, legal, and tax issues that must be addressed as a preliminary to creating municipal bonds. Although one of the goals of the municipal bond program is to promote the initiative of local governmental bodies and to lessen their dependence on the central government, the central government does have a crucial role to play in the municipal bond program. It must take the lead in creating a policy and regulatory environment conducive to the use of long-term debt instruments. An essential element of a municipal bond market is the establishment of bodies--both official and private--that could supervise the structuring and trading of municipal securities.

A central mission of the regulatory body would be to ensure that there is adequate information disclosed about the project and the issuer. Securities regulation is based on the belief that if enough information about the investment and the market in which it trades is available to the investors, then they should be free to make their own decisions. The public has the right to expect that issuers and securities professionals are knowledgeable and will deal fairly with their customers. Appropriate regulation increases the accountability of the various participants in the municipal bond market, while reducing the risks to the investor. The spread of accurate information is crucial to the creation of bonds in developing countries.

There are also a series of legal issues that must be addressed on the local and national level. Municipalities must have the legal right to issue bonds and institutional investors must have the power to buy them. In addition, bondholders must have the ability to seek recourse in the event of a default. Tax exemption is also a consideration. To the extent that assets held in international banking centers are usually not subject to developing country taxes, tax exemption might not prove attractive when targeting high-income investors who have other tax-free havens for their funds. In some cases, however, it may have appeal for institutional investors and small savers. Whether municipal bonds are tax exempt or not, they should be treated under the regulatory regime in ways that make them equivalent to other government debt, although their risk/reward structure need not be identical.

Finally, central government incentives, such as implicit or explicit guaranties, may be needed, at least at the outset, as a means of stimulating the transfer of financing responsibility for local projects to local authorities.

5.3 Setting Appropriate Interest Rates and Maturities

Another issue that must be addressed in designing a municipal bond for developing countries is interest-rate fluctuation. In recent years, countries like Peru, Chile, Argentina, Venezuela, Bolivia, Mexico, and Brazil have all faced momentous inflationary pressures that have forced interest rates up sharply. Long-term securities are particularly vulnerable to such increases in inflation, and competitive yields can quickly turn negative. Inflation also forces maturities down. In Brazil, annual three-digit inflation has curtailed the maturities of many securities. Presently, over 90 percent of central government debt is financed on the overnight market. Given the uncertain conditions in developing countries and the natural caution of developing country investors, maturities of municipal or local issues may have to be relatively short, at least initially. Projects that cannot amortize bond financing within a five-to-ten-year period would need to rely on rolling over bonds or securing take-out finance elsewhere.

On the other hand, an important goal of municipal bonds is to provide long-term financing, and curtailing maturities may have the effect of limiting the projects which could be financed using this mechanism. Experience in the United States shows that there are methods to adjust for changes in interest rates without curtailing maturities. In some instances, a yearly put feature is built into the bond. This provides the investor with the opportunity to redeem the bond if interest rates rise. The investor is paid off, and the bond reissued at the prevailing interest rate. The interest on all outstanding bonds is adjusted to the prevailing rate when this event occurs. This mechanism increases the liquidity of the bond. It assumes, however, that general investor interest in the bond remains high, and that investors will replace those who exercise the put feature. One way this risk has been minimized in the United States is to cap the value of puts accepted during a given period. For example, the total value of puts in a given year may be limited to one-tenth of the par amount of the original issue. This reduces the current liability that the jurisdiction needs to report and provides a better sense of what can be expected even under a worse case scenario. Also, attaching a small penalty to early redemptions has been found to discourage arbitrary or capricious use of the put option by investors.

Another approach to this problem gleaned from experience in the U.S. is variable-rate bonds. Variable-rate bonds come in a variety of formats and could be customized for application in developing countries. U.S. investors have been willing to accept lower returns on variable-rate bonds than on comparable fixed-rate bonds of the same maturity because of the added safety they provide during periods of high interest rates. In order for such schemes to work, the deposits in bond's sinking fund must be managed so that the return on these deposits matches or exceeds the interest paid on the bond. Furthermore, a solution based on a variable-rate bond depends, at least in part, on an effort to key user fees and assessed valuation of property to inflation.

Another type of bond pioneered in the U.S. that may address the problem of interest-rate fluctuation in developing countries is the minibond, which has been issued in the United States in denominations as low as $100. Because they can be issued with short maturities, minibonds can minimize interest-rate risk. Another advantage of minibonds is that they are sold directly by the issuer. Although this increases the administrative burden on the locality, it reduces the cost of the issue.

Chapter 6--Technical Assistance

The technical assistance that AID should provide to support the municipal bond issue is determined by its twin role as the proponent of the instrument and its guarantor. The municipal bonds issued with an AID guaranty should be attractive to investor and issuer while resting on a firm financial footing. It should also be acceptable to the supervisors of the national economy.

A program of technical assistance should therefore include the following initiatives:

Administrative and Fiscal Reform

- o the need to improve municipal administration and revenue collection schemes;
- o the need to develop realistic master plans, both physical and fiscal, for municipalities;
- o the need to reform existing financial institutions serving municipalities;

The Establishment of a New Capital Market Instrument

- o the need to familiarize municipal and national officials with the elements of municipal bond financing;
- o the need to create a legal framework for municipal bonds;
- o the need to establish regulatory agencies;
- o the need to identify likely investors;

Identifying Appropriate Municipalities and Local Authorities

- o the need to examine the political, economic, and financial status of potential issuers;

Identifying Appropriate Projects and Bond Mechanisms

- o the need to conduct economic and financial feasibility studies;
- o the need to devise an appropriate bond mechanism for the project;
- o the need to structure an appropriate guaranty;

Transfer of Technology and the Development of Local Intermediaries

- o the need to develop an appropriate rating system for municipalities in developing countries;
- o and the need to encourage local financial intermediaries to assume underwriting and insurance services.

6.1 Administrative and Fiscal Reform

The technical assistance required for a municipal bond guaranty program falls into several categories. The first is assistance designed to strengthen the role and capacity of municipalities and other local authorities, as well as related institutions such as municipal development banks and ministries of local government. Such assistance should increasingly concern itself with administrative and financial reform in support of decentralization. Institutional development will also have a high priority in terms of local government management and finance as well as project development and implementation.

This type of technical assistance will require recruitment of public finance and public administration experts to work with local officials and institutions and with central government authorities concerned with development projects at the local level. The new municipal networking contract administered by the Office of Housing, along with consulting firms and university resources, should be a good source of expertise to support this kind of technical assistance program.

Among the specific issues that this assistance should address are cost recovery, revenue collection, public investment planning, and tax and tariff issues. Building competencies in these areas, as important as this is to undertaking new methods of financing local projects through the capital market, is central to the ability of developing countries to manage urbanization as well as to harness the economic benefits that can be derived from this process.

6.2 The Establishment of a New Capital Market Instrument

The second category of technical assistance involves the establishment of municipal bonds as viable instruments. Local currency bond programs, whether or not supported by an AID guaranty, involve new institutions and relationships from the perspective of both host countries and AID. The LDC domestic capital market will have to be analyzed and possibly restructured in order to accommodate municipal bond instruments as a vehicle for capital investment. In addition appropriate legal and regulatory safeguards must be instituted.

Regulatory officials and public finance and legal experts could assist in setting up a system to permit municipalities and similar institutions to borrow in the capital market. Such a system would have to insure that other claimants for capital, including the government, continue to have access to capital and that the municipal bond market would be consistent with appropriate national macroeconomic policies.

Of particular concern, however, is the fact that such programs will introduce a new kind of participant into local government financial transactions. Municipal bond financing will involve capital market investors whose investment decisions are based in significant measure on criteria outside of government control or direction. This kind of investor participation is central to the program, and the institutions and procedures necessary to attract that participation will require substantial technical assistance.

As already noted, the general practice in developing countries thus far has been to use central government or external donor resources to fund urban projects. As a result, municipal governments and local authorities have had little incentive to maintain a creditworthy posture in planning and implementing projects and in overall management, budgetary, and revenue practices. In developed countries such as the United States, the tradition of local responsibility for attracting financing from the capital market has introduced the discipline of the marketplace to municipal government and local authority financing.

The major difference in financing projects through the financial market rather than through the government is that the investors within the financial market have choices in their investments. In order to capture its share of available investment capital, the municipal or local authority bond must be as attractive as alternative investment opportunities at least to some segment of the capital market. Technical assistance will be necessary to help pinpoint those investors and to structure offerings which will attract their interest in terms of their investment requirements and alternative opportunities.

The major concerns of the marketplace, whatever the details of the individual investor's needs, are financial risk and financial return. Accordingly, when dealing with investors, the institutional and policy development concerns discussed above need to be assessed in the context of the market's risk/reward perspective. Technical assistance must be provided to help municipalities and other LDC institutions to address these risk/reward concerns of the local investment community.

In so doing, two things can be accomplished. First, the program may be able to mobilize the capital market to serve local needs more productively and efficiently. Second, important administrative and financial reform at the local level may be encouraged more effectively than when the governmental or political process alone determined resource availability and allocation for local requirements.

6.3 Identifying Appropriate Municipalities and Local Authorities

In developed economies, bond rating agencies play an important role in making market issues attractive to investors. While it would be difficult to transfer the level of analysis to developing country municipalities that can be conducted in the United States, such analysis must provide the basis of any bond that AID would consider guaranteeing. Rating agencies already have some experience evaluating bonds issued by local and regional authorities outside the U.S. In assessing the likelihood of repayment, rating agencies will typically analyze the political setting and administrative system, together with the demographic, infrastructure, and local economic factors affecting the borrower. The borrower's revenue structure and liquidity, current and capital expenditure trends, and debt management capability are also reviewed. (See Exhibits A and B at the end of the chapter for a checklist of the types of analysis that could be performed.) As bond funding becomes accepted, a formal rating system, such as the ones used by Moody's and Standard and Poor's, could prove an incentive for fiscal reform.

6.4 Identifying Appropriate Projects and Bond Mechanisms

Once a municipality or local authority has demonstrated its creditworthiness, appropriate projects must be identified and analyzed. If the projects prove viable, a bond must be developed that takes into account such factors as the national and local economies, the fiscal condition of the municipality, the identity of likely investors, the prevailing interest rates and maturities of comparable issues, and the revenue stream of the project. An appropriate guaranty must be structured that spreads the risk among a number of identities.

U.S. municipal bond insurers, investment bankers, underwriters, and market analysts who focus as well on interest-rate risks and on the returns available among competing investment vehicles might all provide useful technical assistance in these areas. None of these groups has been used systematically or intensively to help develop the potential for municipal and local authority borrowing in an LDC. Their participation, especially in countries whose economies and capital markets are sophisticated enough to benefit from this assistance, is essential in providing donor agencies and client countries with the market perspective to assess the concept of municipal bonds and to implement a municipal bond program.

The technical assistance provided by these two sets of institutions can be particularly useful in considering investment risk as viewed by lenders or guarantors. This is largely an unknown, because investment for public purposes in LDCs has virtually always been underwritten and directed by the central government. The investment community view of the creditworthiness of a project or of a local government borrower will be critical, over time, to modifying that control.

6.5 Transfer of Technology and the Development of Local Intermediaries

Taken as a whole, the technical assistance requirements for municipal bond pilot program would include efforts already supporting decentralization policies and improvements in infrastructure provision and municipal management and finance. However, additional assistance would have to be provided to assure that capital market policies and institutions will be able to accommodate direct borrowing for local development projects. A new technical assistance effort might involve rating agencies bond, insurers, financial advisors, and investment bankers in introducing the perspective of the marketplace investor to the financing of such local projects.

An important goal of this assistance, in addition to strengthening municipal governments and broadening the capital markets of developing countries, is to transfer the expertise in municipal bond financing to appropriate groups in the private and public sectors of developing countries. The ultimate end of the program is to provide the foundation for autonomous municipal bond financing and for indigenous markets based on these securities.

As a first step in investigating the feasibility of an AID guaranty for local currency municipal bonds, a team should be sent to selected developing countries to determine local requirements for funding, to identify local institutions with the potential to issue municipal bonds, and to target investor groups. Such a team could propose adaptations to the municipal bond mechanism to suit the specific circumstances of each country.

EXHIBIT A--STANDARD & POOR'S RATING PROFILE FOR INTERNATIONAL MUNICIPAL BONDS

1. Political and administrative system
- A. Distribution of public sector activities
- B. Inter-governmental arrangements
- C. Public sector employment
- D. Budgeting and accounting
- E. Electoral history

II. Economic structure and performance
- A. Demographic characteristics
  - 1. Total population
  - 2. Age structure
    - a. 0-14
    - b. 15-64
    - c. 65 & over
  - 3. Social indicators
- B. Infrastructure
  - 1. Market value of local property
  - 2. Age distribution of housing stock
  - 3. Volume of cargo and passenger traffic at major transport facilities
  - 4. Proven reserves of major resource endowments
  - 5. Land use
    - a. Residential area
    - b. Commercial area
    - c. Industrial area
    - d. Cultivated area
    - e. Open space
  - 6. Local electrical generating capacity
- C. Labor force statistics
  - 1. Total labor force
  - 2. Total employment
  - 3. Composition of employment by sector
  - 4. Ten largest employers
  - 5. Unemployment rate
- D. Indicators of economic activity
  - 1. Personal income
  - 2. Retail sales
  - 3. Regional consumer price index
  - 4. Average hourly earnings
  - 5. Construction spending
  - 6. Number and value of building permits issued
    - a. Residential
    - b. Commercial
    - c.Institutional
  - 7. Office building vacancy and rental rates
  - 8. Major plant openings, closings
  - 9. Composition of production by sector

III. Revenue Structure
- A. Total revenues
- B. Current revenues
  - 1. Own-source revenues
    - a. Personal income tax
    - b. Corporate income tax
    - c. Property tax
    - d. Sales tax
    - e. Payroll tax
    - f. Fuel tax
    - g. Health service charges
    - h. Resource revenues
    - i. Other
  - 2. Inter-governmental transfers
    - a. Conditional
    - b. Nonconditional
- C. Capital revenues
  - 1. Own-source
  - 2. Intergovernmental transfers
- D. Revenue variance
  - 1. Budgeted
  - 2. Actual
- E. Measures of tax burden
  - 1. Tax rates
  - 2. Collections performance

IV. **Expenditure structure**
- A. Current expenditures
  - 1. Budgeted
  - 2. Actual
- B. Capital expenditures
  - 1. Budgeted
  - 2. Actual
- C. Composition of expenditures
  - 1. Health
  - 2. Education
  - 3. Social welfare
  - 4. Transportation
  - 5. Economic development
  - 6. Interest
  - 7. Security
  - 8. Other
- D. Expenditure flexibility
  - 1. Discretionary
  - 2. Nondiscretionary

V. **Nonbudgetary accounts**
- A. Net loans
  - 1. New loans and advances
  - 2. Repayments
- B. Pension funds (total)
  - 1. Provisions
  - 2. Earnings
  - 3. Unfunded liabilities
- C. Sinking funds
- D. Investments

VI. **Financing**
- A. Financing requirements
  - 1. Operating balance
  - 2. Total budgetary balance
  - 3. Nonbudgetary balance
  - 4. Debt amortization
- B. Source of funds
  - 1. Domestic bond markets
  - 2. Foreign bond markets
  - 3. Internal reserves
  - 4. Other

VII. **Liquidity**
- A. Net current asset position
  - 1. Total current assets
    - a. Liquid assets
    - b. Accounts receivable
  - 2. Total current liabilities
    - a. Short-term debt
    - b. Current maturities of long-term debt
    - c. Accounts payable
- B. Sources of liquidity
  - 1. Total bank lines
  - 2. Unused credit lines
  - 3. Other
- C. Cash management (monthly inflows and outflows)

VII. **Debt**
- A. Direct debt
  - 1. Purpose (e.g. general municipal or municipal enterprise)
  - 2. Currency
  - 3. Schedule repayments
  - 4. Sinking funds
- B. Guaranteed debt
  - 1. Purpose
  - 2. Currency
  - 3. Scheduled repayments
  - 4. Sinking funds
- C. Underlying/overlapping debt

EXHIBIT B--SELECTED FINANCIAL RATIOS FOR INTERNATIONAL MUNICIPALITIES

The ratios calculated in analyzing a municipality or local authority will vary with the data available and the nature of its activities. Outlined below are ratios used frequently in rating assessments. These ratios would have to be adapted to developing country conditions. Ideally, trends are analyzed over the past five years.

I. **Political setting**
- A. Revenue transfers received/revenues
- B. Revenue transfers distributed/current expenditures
- C. Actual expenditures/budgeted expenditures

II. **Administrative System**
- A. Wages/current expenditures
- B. Actual revenues/budgeted revenues
- C. Actual expenditures/budgeted expenditures

III. **Demography and infrastructure**
- A. Property value/population
- B. Dwelling units/population
- C. Actual expenditures/budgeted expenditures

IV. **Composition of local economy**
- A. Personal income/population
- B. Building permits/property value
- C. Employment/population

V. **Revenue Structure**
- A. Tax levy/population
- B. Tax levy/ property value
- C. Tax levy/personal income
- D. Current collections/current levy
- E. Total collections/current levy

VI. **Liquidity**
- A. Budgeted/actual cash balances

VII. **Current expenditure** trends
- A. Operating balance/revenues
- B. Debt service expenditures/revenues
- C. Budgetary balance/total revenues

VIII. **Capital expenditures**
- A. Operating Balance/net capital expenditures
- B. Gross capital expenditures/current expenditures
- C. Budgetary balance/total revenues

IX. **Debt management**
- A. Total public sector debt/population
- B. Total public sector debt/property value
- C. Total public sector debt/personal income
- D. Combined debt/population
- E. Direct debt/population
- F. Direct debt/personal income
- G. Direct debt/revenues
- H. Current-year amortization payments/direct debt
- I. Short-term debt/short-term and long-term debt
- J. Interest payments/total revenues

Chapter 7--The Role of Aid in Guaranteeing LDC Municipal Bonds

For many years, international donor agencies such as AID and the World Bank have assisted developing countries to establish specialized institutions such as local government development banks to raise revenue for projects sponsored by local governments. Frequently these municipal credit institutions have taken the form of parastatal development funds or banks, funded by donor agencies and central government contribution. The development agenda involved in these projects have typically been institutional, undertaking to move from grant to loan financing of local projects and to introduce improved project appraisal standards. While in some cases these goals have been realized, the process of loan financing has frequently become subject to political maneuvering involving the central government. As a result, many of these agencies have become pass-through institutions for central government activities, rather than market-oriented lenders and partners in local government projects.

The economic crises that characterize many developing countries today, however, have reduced central government ability to capitalize financial intermediaries that can provide financing for these purposes. The response of most development experts has been to focus on revenue generating efforts at the project or local level, such as user charges, local taxes, and other cost recovery steps. This is certainly one piece of the solution.

The credit problem, however, has received less attention. The capital needed for urban infrastructure and facilities was formerly drawn from central government budgets. To the extent that such budgets are being sharply curtailed, municipalities and specialized housing and municipal finance institutions need to find new sources of domestic capital outside of central government budget allocations and transfers.

In the United States and the other industrialized countries, the domestic private capital market (and, increasingly, international private capital flows) provide funding for local authority projects. Central government requirements governing project approval, financial underwriting, and guaranties vary from country to country. Nonetheless, the diversity of public sector institutions that can market securities and the broad availability of investment options has resulted in large financial markets that can mobilize substantial resources to meet these credit needs.

In facing the test of the private market, issuers of bonds respond to individual and institutional investors who must carefully assess the creditworthiness of the issuer, and, in the case of revenue projects, the technical, economic, and financial soundness of the proposal. In this market, judgments tend to reflect commercial and professional considerations, rather than political factors. Rating agencies, bond insurers, underwriters, and other experts are all part of a system that has fostered local growth and development.

Despite the many advantages that municipal bonds can provide developing countries, it remains true that municipal bonds are a financial instrument with origins in the political and cultural traditions of the United States. It is not realistic to suppose that municipal bonds, as we know them, can be directly applied to developing countries. Rather than impose the identical set of institutions and procedures, albeit on a smaller scale, that comprise the municipal bond industry in the United States, AID can work in its capacity as guarantor to help shape a municipal bond system that would improve and complement existing administrative and financial institutions.

7.1 Selecting Projects That Meet AID Policy Objectives

AID's ultimate objective in attempting pilot municipal bond programs in selected LDCs should be to demonstrate the feasibility of financing local authority projects through the domestic capital market. Specific projects should be selected that can demonstrate that local authorities can effectively draw on local capital resources for investment purposes. In order to minimize the fiscal impact on government budgets, different kinds of investment incentives can be tested under the umbrella of properly tailored AID guaranties.

Indeed, it may be that AID will want to concentrate, at least in the beginning, on specific revenue producing projects that can best pay their own way. An important financial criteria is the performance of the sector to which the project belongs. A World Bank review of fifteen developing countries reveals that transport infrastructure makes a positive contribution to fiscal revenues in nine of the fifteen countries. However, inadequate taxation policies in some countries undermine the profitability of roads. Airports generally are in better financial health. Although many make a net loss on operations, all except the airports in Africa, Sri Lanka, and Jamaica earned a net surplus when taxes paid were taken into account. Ports are difficult to assess, while railroads uniformly lose money. In Africa, Asia, and Argentina, railroad losses are substantial and represent a serious drain on the governments' overall fiscal revenue.

Nonfinancial characteristics generally speaking would refer to the degree to which the project meets AID's developmental objectives. Presumably, AID would be willing, with the cooperation of industrial corporations and private entrepreneurs, to assume additional risk for the sake of a project that meets its priorities. For example, AID could provide guaranties for water and sewage treatment plants serving urban areas, including commercial and industrial sites as well as low-income residential areas. Such a commitment would underline AID's desire to prevent further environmental degradation in developing countries and would serve equity as well as economic and financial objectives.

Initial projects funded under this program should be fairly straightforward. The complexity of the project will depend on the size of the developing country economy and the existence of functioning capital markets. In small economies, projects such as street paving and water delivery would be appropriate, while in large economies, airport improvement and water treatment plants might be viable.

7.2 Addressing the Risks Associated with Offering a Guaranty

The guarantor of a municipal issue must have confidence in the issuing authority and in its ability to provide the necessary flow of moneys to service the interest and principal on the bond. And it must also have an intimate knowledge of the project being financed. The technical assistance program outlined in Chapter 5 would support this need.

In the U.S., the rating agencies and other professionals provide the analysis that creates the necessary confidence. AID, as a guarantor, must require participation of similar groups to undertake this task. AID can supplement this activity with a program of management and administrative training. Municipalities and other local authorities in the United States are quite proud of their bond ratings and work hard to achieve the practical financial advantages that accrue from high ratings. The gradual institution of a rating system should prove an incentive for municipal reform in the LDCs as well.

In the United States, a guarantor or insurer absorbs the risk of loss in several ways. First, it charges a fee for its guaranty. AID should follow a similar policy consistent with general AID policy in providing credit to financial institutions and specifically with the precedents established by the Housing Guaranty Program. Second, it spreads its risks over a large universe of insureds. To the extent that this is possible, AID would be wise to imitate this policy. Rather than concentrate its risks on large projects, it should offer guaranties to smaller projects for a variety of purposes and in a variety of regions. Diversification is essential. U.S. insurers operate under the assumption that the bonds they insure will not default and they are merely making a good credit better. An AID guaranty will have a different result. It will, in effect, make a developing country municipal bond possible.

AID can also minimize its risks by only guaranteeing a portion of the bond. Market efficiency is best promoted by having local investors assume some risk, while other portions of the risk can be assumed by local coguarantors that would insure a smaller percentage of risk than AID, but who would be the first to be called upon in case of default. Local commercial banks might be called upon to assume this role.

The level of the guaranty must also be viewed from the perspective of the investor. If the bond was denominated in dollars and if the goal of the program was to attract U.S. investors, then a 100 percent guaranty would be necessary. However, as the proposed guaranty is to be provided for a local currency security marketed primarily to local investors, a full guaranty is not necessary nor desirable. A partial guaranty would effectively distinguish the bond from other locally available securities such as government bonds, while a 100 percent guaranty would make the bond a preferential investment. Experts in the municipal bond insurance industry in the United States believe that the presence of a U.S. government guaranty--even a partial guaranty--will prove attractive to developing country investors. However, a definitive answer to this question awaits in-country investigation.

The establishment of legal and regulatory safeguards will also reduce AID's risks. Such regulations could focus on the need for full disclosure and define legal responsibilities of underwriters. In the United States, the SEC has ruled that dealers choosing to underwrite an issue are making an implicit recommendation of that security when they introduce it into the stream of commerce, that is, when dealers agree to underwrite an issue, they are expressing their belief in the accuracy of the key representations in the official statement.

It is also useful that investors, when possible, have a direct stake in the outcome of the project. This would help ensure that the funding is used efficiently. The efficiency of revenue collection efforts, for instance, should increase if users have a stake in the financial viability of the local entity issuing the bonds. These users will also act to enforce prudent fiscal and administrative management of the issuing authority.

Conclusion--Why AID Should Undertake This Project

1. Stimulates the Local and National Economies

In evaluating the economic impact of introducing municipal bonds in developing countries, one has to extrapolate from the municipal bond market in the United States. The impact in developing countries would follow the general directions outlined below, but would vary from country to country depending upon the nature of the banking system. In the U.S., the economic impact of municipal spending financed from borrowing depends on which type of investor buys the bonds. If nonbank investors acquire municipal debt, the total supply of money in the economy remains unchanged. Ownership of the money simply shifts from the lenders to the borrower governments. Although the net economic impact on the national economy may be limited when nonbank lenders are involved, it is essential to recognize the effect of the debt on the economy of the locality. In many situations, the debt instrument is a device by which capital is attracted to state and communities with acute needs for new capital infusion. The effects of this new capital will produce both short-term and long-term economic consequences quite different from borrowing of a similar amount of money by a government situated in a region with surplus capital available. If state and local government debt is purchased by commercial banks, the money supply is expanded immediately by the amount of the purchase and the ultimate economic impact of such actions on a cumulative basis can be substantial.

Nonbank investors give up money in exchange for financial assets when they purchase municipal bonds. Although they may later reconvert these bonds to money in the secondary market, they forego spending or alternative opportunities for the period the money is invested in municipal bonds. Hence, the money that the nonbank investors channel into municipal securities represents savings or the conversion of other assets. On the other side of the transaction, governmental borrowers give pledges against the future in the form of promises to pay from future income. When proceeds of bond sales are spent on currently produced goods and services, the gross national product is increased. Of course, the same effect on the GNP would be obtained if other spenders borrowed such funds from nonbank investors.

The loans to state and local governments by nonbank investors are generally not inflationary because they produce no increase in the nation's money supply. Ownership of money is simply transferred from private to governmental entities. When proceeds are spent, the money is shifted back to the private sector. Thus, the total of the private holdings of money (except for interim interest) is the same after the borrowing and spending as it was before these transactions occurred. From the standpoint of aggregate national effect, the total money supply held outside the banking system remains unchanged.

In developing countries, the situation would be slightly different. In the absence of a wide variety of securities, savings are either underutilized or directed out of the country. To the extent that municipal bonds draw money that otherwise would not be invested or that would be invested elsewhere, bonds boost economic performance

When financial institutions purchase bonds, the benefits for developing countries may be greater. In the U.S., if commercial banks, instead of nonbank investors, purchase local government debt, the economic impact may be significantly different because money supply may be increased. If the banks have excess reserves, that is, if their cash and deposits in Federal Reserve Banks exceed the required percentage of deposits, they may purchase municipal bonds simply by creating deposit money. Although this transaction results in increased deposits and, therefore, an increased money supply, similar results would occur if banks bought other types of securities or made loans directly to the public; however, many banks may be more willing to buy municipal bonds than other types of securities. Banks may also purchase municipal bonds from nonbank investors in the secondary market. The effect of such transactions on money supply would be the same as purchasing securities directly from the borrowing government. If banks have no excess reserves, they can buy municipal debt by selling an equivalent amount of other securities to the nonbank sectors of the economy or by reducing loans by the same amount. The net effect is no different from purchases by the nonbank sector.

In the United States, the Federal Reserve system can and may supply reserves to the banking system in order that banks can purchase municipals without drawing down excess reserves or liquidating loans or other investments. If new reserves are used to acquire municipal debt, deposits are increased initially by the amount of the purchase of municipal obligations. But because banks would need to hold reserves equal to only a fraction of these new deposits, the total money supply can be expanded by an amount that is considerably larger than the initial purchase of municipal debt.

2. Activates Alternative and Efficient Sources of Funding for Municipalities and Local Authorities

The LDCs, unlike the United States, have inherited or instituted a highly centralized public finance system. It would be neither practical nor desirable to seek to impose a completely new system, nor can it be reasonably hoped that existing systems can be reformed overnight. Presently, most municipalities and other local governing bodies in developing countries are funded directly by their central governments or receive funds from the central government through municipal credit institutions at subsidized rates. Flows of funding from both sources are decreasing. Recent studies of public investment in thirty developing countries show that public investment as a share of GDP has been declining steadily since 1983, right after the Third World debt crisis. In 1988, public investment reached the lowest point in the previous fourteen years, averaging 7.2 percent of GDP.

A second source of funding for municipalities is multilateral or bilateral aid. International donor agencies, such as AID and the World Bank, have played important roles in filling the resource gap created by reduced central government funding. However, the resources of these agencies are not sufficient to meet these demands, nor were they intended to. Furthermore, the resources of aid institutions are increasingly constrained and the direct funding of projects is increasingly rare as more attention is turned to policy and programmatic assistance.

As external funding becomes scarce, local governments in developing countries must contemplate new means of financing. Lacking the experience of borrowing on the open market, these governments might find the cost of funds to undertake improvements to be prohibitive. The effect of a bond guaranty would be to introduce local governments to the capital market, while reducing the cost of borrowing and the costs passed on to the public in taxes and user fees. A guaranty program would enable AID to continue to support housing and infrastructure and play an important role in promoting urban economic development in LDCs, with the added benefit of doing so without the transfer of AID funds.

3. The Development of Local Institutions and the Process of Decentralization

The requirements of issuing municipal bonds entails the development of local fiscal responsibility for urban services and the empowering of agencies and authorities to carry out these responsibilities. At the same time, the financial role of central governments in marshalling and allocating domestic resources can be reduced. The introduction of municipal bond funding in developing countries implies the replacement of centralized political control by local control and managed approaches by competitive market forces.

By providing a basis for sound capital budgeting, municipal bonds offer the added benefit of improving the ability of localities to achieve sound physical development and to design effective master plans.

Creating specific authorities to oversee a particular aspect of infrastructure development or bolstering existing authorities is a way of promoting administrative and fiscal reform on the local level. Since these agencies are directly accountable to the people who would use their services--and the local taxpayers who finance it--they generally pay close attention to the efficiency with which that service is provided and operated. These value-for-money criteria encourage local government agencies to control costs and maximize user charges. This is a prerequisite for issuing a bond. The discipline required to make principal and interest payments on a bond issue would tend to increase this efficiency even further.

4. A Catalyst for Financial Market Development

An essential effect of the AID guaranty would be to provide a catalyst for the progressive evolution of developing country financial markets. Financial markets are extremely important to economic development in several ways: markets encourage savings by offering investors a return on their contributions. Secondly, markets, by massing these savings for use in a variety of productive enterprises, increase the capacity of these enterprises to produce, and thus markets foster the creation of jobs and more goods. In order to accomplish this efficiently, several criteria must be addressed. Markets, especially in developing countries, must be liquid. Investors must have the ability to sell their investments when they wish to obtain cash or switch to alternative investments. They must be orderly, and they must be serviced by reliable financial intermediaries. Finally, they must provide savers--whether they be individuals or institutions--with a wide range of investment opportunities.

It is in the context of broadening developing country capital markets that AID's guaranty, which makes possible the introduction of local and municipal bonds, should be seen. Many developing countries have managed economies and practice centralized funding of local infrastructure and housing improvements. Thus, while these countries often issue central government bonds, there are few local or municipal issues in their capital markets. The United States has long relied on bonds to fund local improvements in housing and infrastructure, and the last ten years in particular have seen a number of innovations in the structuring of this instrument--particularly in countering anticipated interest-rate fluctuations--that could be adapted for developing country investors. By contributing a variety of medium- and long-term instruments to developing country capital markets, municipal bonds offer the advantage of mobilizing additional savings for productive purposes.

Markets reflect the comparative advantages offered by the business environment of a particular country, as well as efforts to build on these advantages. Municipal bond financing will channel funds toward infrastructure and housing activities that will enable countries, either directly or indirectly, to make more efficient use of their natural resources.

As a series of municipal bonds are issued, it is possible that a secondary market in these instruments will develop. This will satisfy the needs of savers who do not want to tie their funds up in long-term issues. It will take time and experience before municipal bonds are viewed viable instrument that can be traded on the secondary market. Investor confidence in financial and legal safeguards must first be established, and bonds issued will have to demonstrate a track record of timely payment.

5. The Mobilization of Domestic Savings

Municipal bonds are an important means of encouraging and mobilizing domestic savings. They can be tailored to the needs of small savers, entrepreneurs, wealthy individuals, and large institutions such as pension funds. Bonds can be issued in a variety of denominations and can be accompanied by tax and regulatory provisions that make them attractive to a variety of prospective savers.

The ability to capture such savings and efficiently allocate them to priority projects is one important key to urban economic development. The time appears ripe to use municipal bond mechanisms to tap this market for local projects, as has been successfully done in the U.S. and other developed countries.

6. The Prevention of Additional Capital Flight

During the last fifteen years, capital flight has severely hampered the growth of developing countries. Resources that, if retained at home, could have been used to fuel economic development have been siphoned off in large quantities. Capital flight causes a reduction in resources available in developing countries to finance domestic investment, depressing their growth rates. It exacerbates budget problems at all levels of government by reducing the tax base. Developing countries have difficulty in taxing wealth held abroad, as well as income that is generated from this wealth. The end result: government revenue is reduced, fiscal deficits widen, public investment drops, taxes are raised, and the incentive for capital flight only increases. Nations unable to sustain tax increases are driven deeper into debt.

Developing country capital flees from the perception of abnormal risks. One of the reason it finds a resting place in countries like Switzerland and the United States is that inflation is relatively stable and credit risks are reduced by government guaranties on certain deposits. By providing a local currency guaranty backed by the U.S. government, AID can help reproduce some of the conditions that cause investors to place their money in overseas securities. Such a guaranty must be accompanied by a mechanism to reduce interest-rate risk.

It is very difficult to lure flight capital back to its country of origin. Nonetheless, if an attractive municipal bond mechanism could be devised, AID's municipal bond program could prove attractive to developing country investors with funds overseas in the event that U.S. interest rates drop. It could also reduce additional capital flight significantly.

7. A Stimulus for the Transfer of Legal and Financial Expertise

The introduction of municipal bonds requires legal and financial expertise. Initially, municipalities, with AID assistance, would tap U.S. sources of this expertise. The ultimate goal of the program, however, would be to help transfer the legal and financial knowledge to private law firms, underwriters, and banks in developing countries. The guaranty itself stimulates the development of local financial intermediaries because it enhances the credit of the issues that local underwriters and bankers would be selling. The goal of the program would be to create a self-regulating, self-sustaining bond industry.

As we have seen, by offering a guaranty for a local currency municipal bond, AID can meet a variety of its policy objectives. The success of any effort to introduce financing alternatives for local authorities and municipalities in developing countries would be dependent, at least initially, on a guaranty. Here AID's involvement is crucial to the viability of the pilot program. As a prerequisite, a guarantor must possess the experience needed to help restructure municipal finance institutions and promote the emergence of responsible capital markets and financial professionals. To the extent that other those groups that might be willing to provide a guaranty do not have the access to expertise in technical bond funding that AID does, AID's provision of at least a partial guaranty is essential. After institutions have been established and precedents developed, independent private guarantors, including those accustomed to operating in the United States and new entities established in developing countries, could step in to provide guaranties for other local currency municipal bonds.

Appendix A

The Municipal Securities Rulemaking Board

The Municipal Securities Rulemaking Board (MSRB) was established in 1975 by an act of Congress. The MSRB was given the mandate to set standards for both banks and securities firms involved in underwriting, trading, and sale of municipal securities. Board rules apply only to the dealer community, and the Board is specifically prohibited from adopting rules that would require issuers directly or indirectly to provide information to the market. This restriction is known as the Tower Amendment. The MSRB also does not regulate financial advisors not affiliated with a dealer, bond attorneys, bank trustees, paying agents, or transfer agents.

The Board itself is composed of fifteen members. Five members represent securities firms, five represent banks, and five come from outside the dealer community. At least one of the public board members must represent the issuers and one must represent investors.

Board rules must be approved by the SEC. They have the force and effect of Federal law. Examination and enforcement of board rules is delegated to the National Association of Securities Dealers for securities firms and the FDIC, the Fed, and the Comptroller of the Currency for banks. Thus, in establishing the MSRB, the Federal government made use of existing structures to complement the activities of this new regulatory body. This procedure could provide a pattern for AID's efforts to establish similar regulatory bodies in developing countries.

The MSRB is presently concentrating on improving the flow of information to the investor community. Under the present system, municipal security dealers are asked to maintain essentially the same standards as those in the corporate world. The ability to meet these standards has been entirely dependent on parties that may or may not supply information to the market at a time of their own choosing. The MSRB hopes to improve the availability of information about the issuer, value, and description of securities by establishing a data base of official statements and by expanding its regulatory authority to include agents of the issuer. Insistence on disclosure should be a priority of the AID-backed program.

Appendix B

A Description of Municipal Finance Institutions

Rather than try to devise a uniform set of criteria for creating municipal bonds Jordan and Kenya, this appendix will try to point to institutions in these countries that may play a constructive role in the development of municipal bonds within their borders.

Jordan: The Cities and Villages Development Bank

In 1979, the government of Jordan established an autonomous Cities and Villages Development Bank (CVDB) to provide investment finance and assistance to municipal and village councils (there are four towns and 173 villages), with the aim of extending access to infrastructure and employment. The bank has played a role in financing the spread of urban physical and social infrastructure (including paved roads, schools, clinics, piped water, and electricity) to virtually all settlements in Jordan. It has also been instrumental in maintaining and improving the quality of infrastructure investment through its standards, appraisal, and monitoring, although, as we shall see, its efforts were often undermined. The bank has also taken an active role in financial and technical advice and training for municipal authorities. It has introduced new criteria that will allow municipalities to forecast their debt service capacity more accurately.

The board of the CVDB consists of representatives from the Ministry of Local Government, as well as representatives from the private sector and other branches of government. The bank receives funding from the Central Bank of Jordan and the World Bank. It also is a repository for deposits from local governments and from the state insurance company and the social security system. In effect, this system gives the CVDB an advantage over commercial banks. The deposits from municipalities are mandatory and include intergovernmental transfers as well as revenue. The state insurance company is required to hold some of its funds at state institutions. The CVDB receives funds from the Central Bank at below market rates and World Bank funds are passed on to it at the rate received by the Government of Jordan. The only exception to its reliance on sequestered funds at concessionary rates is the funds from the social security system. World Bank officials report that the CVDB negotiated a long-term deposit from the social security administration on something like market terms. One problem that the CVDB faces is that a large percentage of its deposits are short-term, and it is lending long-term. It does not find itself uncomfortable with this situation. The CVDB is the channel by which all intergovernmental transfers pass down to local governments. CVDB recovers its debt service as the funds pass through.

CVDB has a standard procedure for accepting loan applications. The applications first go to the Ministry of Local Government. The ministry screens projects to determine if they are consistent with government objectives. Once the ministry approves the project, the application is passed to CVDB. CVDB does an engineering and financial appraisal. It performs these functions very quickly, reportedly in two days. World Bank officials report that the CVDB possesses the highest degree of technical sophistication of any similar institution in developing countries and that its review process is sound. Applications that are rejected are sent to the loan committee for review. Unfortunately, the loan committee routinely ignores the recommendations of the CVDB staff and has approved almost every application that has passed through it. As a result, many municipalities received funding for projects that were not financially viable. CVDB in some cases is withholding a large portion of their intergovernmental transfers for debt service and many municipalities, especially those who depend for high percentages of their funds from the central government, are facing insolvency. In response to this crisis, the central government has recently limited the amount of debt service that the CVDB can exact on intergovernmental transfers. The central government now makes up the difference between the amount that the CVDB can divert and the total debt service and principal payments.

Although the mechanisms established by the CVDB have been short-circuited, it does possess the technical expertise to administer lending programs and might be adapted to issue bonds on behalf of municipalities and villages. One object of an AID guaranty might be to reform the activity of the loan committee and allow the CVDB to act on its technical criteria. Bonds issued by the CVDB on the private markets would bear an interest rate higher than that on the loans that they presently extend to municipalities. But if these bonds are used to fund revenue producing projects, this system might prove acceptable to local governments. Alternatively, CVDB might be able to coguarantee a bond issue.

Kenya: The Local Government Loan Authority

The World Bank has made it a priority to establish a financially viable mechanism for financing local authority infrastructure throughout Kenya. The government of Kenya has contracted with Price Waterhouse to evaluate the existing mechanism--the Local Government Loan Authority (LGLA)--and to propose measures to improve its performance. Because LGLA borrows from the treasury at below-market interest rates and because it is in arrears in servicing its debt, its operations represent a substantial and open-ended subsidy. One reason for its poor performance is that its standards for project selection are ad hoc and politicized. All too often, scarce resources are used to finance poorly conceived projects of low priority.

The combination of reform elements--institutional reorganization, new legislation, procedural changes--that might be used to correct these problems are numerous. Much discussion has focused on one particular package of reforms: the restructuring of the LGLA as a municipal development bank.

Such a restructuring could be accomplished in a number of ways. It might be restructured as a commercial bank, organized under the Companies Act and subject to regulation under the Banking Act. It would be capitalized through private-sector share subscriptions and would fund much of its lending operations through the issue of long-term debt instruments. Its board of directors would be elected by its stockholders and would be responsible solely for representing their financial interests. As a municipal development bank, its only distinguishing characteristic would be a restriction on its lending: it would be permitted to lend only to local authorities and only for the construction of infrastructure.

The World Bank believes that such a bank would not meet its development objectives. Even if sufficient private capital could be raised to provide a minimum equity base, such a bank would remain a small, high-cost player in local infrastructure finance. Given the risks of lending to local authorities, it would need to restrict its lending to projects where direct cost recovery is possible. This would permit assets to be used as collateral and to be sold in case of default. Returns demanded by equity holders and by lenders to the bank would be substantial and its cost of funds would be high. Such a purely commercial municipal development bank would leave the task of financing most local infrastructure where it is now: directly or indirectly with the government of Kenya.

Price Waterhouse proposed a reform plan that does not seek to eliminate government entirely from infrastructure financing, but rather to reform its role. They see the government of Kenya as the initial source of the municipal development bank equity and as the guarantor of all its loans.

Such restructuring would only be part of the process. The revamped LGLA would need to require more complete documentation for projects submitted to its consideration, boost its ability to appraise projects from a technical and financial standpoint and expand its board to include representatives of private equity and loan capital in order to decrease the political pressures that affect its loan approvals.

The government of Kenya would also like the LGLA to mobilize resources directly, both from domestic and overseas sources. While both the World Bank and Price Waterhouse have considered the option of the LGLA floating its own loans domestically, they believe that such instruments are likely to require a government of Kenya guaranty.

Such a process might not have any advantage over the government of Kenya itself issuing a bond and onlending the proceeds, on identical terms, to the LGLA. However, this problem would be bypassed if AID backed an LGLA bond, which could be used to raise funds for individual projects or a series of projects brought to it by municipalities.

Appendix C

Potential for Foreign Investors in Kenya

The Chartered Merchant Bank is setting up an office in Nairobi. The rationale for this office is that there are a large number of multinationals in Africa, engaged principally in such activities as mining and resort extraction, that generate quite a large amount of revenue. In many of the countries in which they operate, there are restrictions on the amount of money they can repatriate. As a result, these companies are looking for safe vehicles to invest the money locally. The Chartered Bank hopes to act as the medium to recycle these local foreign resources. They are considering purchasing the rights to operate trains over national railway lines. For instance, they might operate trains carrying copper from Zambia to Dar-es Salaam. They would buy time on the right of way and maintain their own rolling stock.

It is possible that these same companies would be willing to use blocked funds to participate in municipal bond schemes if the bond were being used to support an activity that they might benefit from

Bibliography

Bisky, Tom. "Strategy of a Front-Runner." *ABA Banking Journal.* November 1988.

"Credit Comment" *Credit Week International.* April-August 1988. February 1989.

Djordjevich, Michael. "Financial Guaranty: New Industry Emerges." *National Underwriter.* February 27. 1989.

Fabozzi, Frank J. and Sylvan G. Feldstein. The Dow Jones-Irwin Guide to Municipal Bonds. Homewood, Ill. Dow Jones-Irwin, 1987.

Fabozzi, Frank J. and Sylvan G. Feldstein. *The Municipal Bond Handbook.*

Fulton, William. "Making a Beeline for Wall Street." *Planning.* June 1989.

Hawthorne, Fran. "Hoping for an Upturn." *Institutional Investor.* 1988.

Heggie, Ian G. and Mervyn John. Financing Public Transport Infrastructure. Conference Paper. Washington: World Bank, 1989.

How the Bond Market Works. New York: The New York Institute of Finance, 1988.

Kolman, Joe and Fran Hawthorne. "Less Glitz, More Service." *Institutional Investor,* 1989.

Leeds, Roger. *Privatization in Jamaica: Two Case Studies.* United Nations Development Program. December 1987.

Leigland, James. "States Sell Bonds Worldwide." *Journal of State Government.* 1988.

McLoughlin, Tom and Catherine Holstein. "The Use of Minibonds to Finance Infrastructure." *PM.* June 1989.

Manual of Argentine Loans: National, Provincial, Municipals. Buenos Aires: Ernesto Tornquist & Co., 1930.

Moak, Lennox L. *Municipal Bonds: Planning, Sale, and Administration.* Municipal Finance Officers Association, 1982.

Municipal Bonds. MIS Report 19:6. International City Management Association. June 1987.

Olowu, Dele. "Nigeria: Federal and State Transfers to Local Governments, 1970-87." Background Paper. Washington: World Bank, 1988.

Petersen, John E. *Information Flows in the Municipal Bond Market: Disclosure Needs and Processes.* Washington: Government Finance Research Center of the Government Finance Officers Association, 1989.

Petersen, John E. Initiatives and Issues in Municipal Bond Disclosure. *Government Finance Review*. December 1988.

Petersen, John E. and Ronald Forbes. *Innovative Capital Financing.* Planning Advisory Service Report Number 392. American Planning Association, 1985.

Pfeffermann, Guy P. and Andrea Madarassy. *Trends in Private Investment in Thirty Developing Countries*. International Finance Corporation, Discussion Paper No. 6. Washington: World Bank, 1989.

Pierce, Lawrence and Percy R. Aguila, Jr, and John E. Petersen. *Municipal Minibonds: Small Denomination Direct Issuances by State and Local Governments*. Washington: Government Finance Research Center of the Government Finance Officers Association, 1989.

Road Deterioration in Developing Countries: Causes and Remedies. Washington: World Bank, 1988.

Standard and Poor's Debt Ratings Criteria: Municipal Overview. New York: Standard and Poor's, 1986.

Standard and Poor's Credit Overview International. New York: Standard and Poor's, 1984.

"The Whoops Trial Begins--and Munis May Never Be the Same." *Business Week*. October 3, 1988.

World Development Report 1988. New York: Oxford University Press, 1988.

World Development Report 1989. New York: Oxford University Press, 1989.

List of Persons Consulted

Bats, Philip S. Managing Director. International Finance Department. Standard and Poor's Rating Group.

Cole, Richard A. Senior Vice President. Enhance Reinsurance Co.

Davies, Stephen. Chief Country Officer, Taiwan. Hoare Govett Asia.

Dillinger, William R. Urban Finance Specialist. Policy, Planning, and Research Staff. The World Bank.

Engle, John. Chief Country Officer, Taiwan. Hoare Govett Ltd.

Goldrick, Sean. Chief Country Officer, Korea. Hoare Govett .

Graffam, Robert. Acting Director. Capital Markets Department. International Finance Corporation.

Haveland, Max. Municipal Bond Specialist. J.P. Morgan & Co.

Heggie, Ian G. Senior Economist. Transportation Policy, Planning, and Research Staff. The World Bank.

Kwiatkoski, Paul C. Vice President. Enhance Reinsurance Co.

McLoughlin, Thomas F. Manager. Government Finance Research Center.

Meaney, Frances X. Bond Counsel to the Treasurer of Massachusetts. Mintz Levin.

Mike Murphy. Project Manager. International City Management Association.

Shapiro, Philip. Financial Director. Massachusetts Water Resources Authority.

Siflinger, Marvin. Executive Director. Massachusetts Housing Finance Agency.

Taylor, Christopher. Executive Director. Municipal Securities Rulemaking Board.

Tropper, Peter. Investment Officer. Capital Markets Department. International Finance Corporation.

Wall, Peter. Research Analyst. Capital Markets Department. International Finance Corporation.

Wayne Whelan. Bond Counsel. Skadden Arps Slate Meager, and Flom.

Yenny, Jacques. Infrastructure Operations Division, Turkey. The World Bank