

Islamic Project Finance

Problems and Promises

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ABSTRACT

In spite of the huge needs and the substantial opportunities, project finance has been a relative laggard in the development of the Islamic financial industry. With the possible exception of Malaysia, a robust Islamic market for the financing of infrastructure projects has yet to emerge anywhere. This article examines the combination of internal and external factors that have limited the scope of Islamic project finance to date. Above all, institutional shortcomings, ranging from the lack of standardization of legal rulings and provisions for liquidity mechanisms to the capabilities and choices of Islamic financial institutions themselves, are emphasized. The article concludes with an exploration of some of the ways in which Islamic finance could make distinctive contributions in the area of project finance.

I. INTRODUCTION

Islamic project finance represents a peculiar amalgam of limitations and potentials for the Islamic financial industry. The potentials are substantial yet as largely unfulfilled. The limitations are formidable and are ascribable to factors both intrinsic to the Islamic financial market itself as well as to ones beyond it.

The objective of this paper is to provide an overview of these limitations and potentials. The paper addresses three sets of questions.

First, what are the opportunities for Islamic financial institutions in the area of project finance? In many respects, the paper argues, Islamic finance and project finance appear to be tailor-made for each other. Moreover, judging by the needs, one would think that of all the areas of activity that should be the focus of energies of Islamic bankers and investors, project finance should rank, if not at the top, at least very close to it.

Second, what are the constraints against the spread of Islamic project finance? This is not exactly a segment of the market that has taken off. Why not? What are the reasons that work against its doing so?

Third, what is the promise of Islamic finance in the area of project finance? What, if anything, can the Islamic financial industry bring to project finance? Where can it make a critical difference?

II. THE OPPORTUNITY

This would seem to a particularly opportune juncture for the industry when it comes to project finance. There would appear to be several factors that make it so.

We might begin by noting that a revolution that has taken place in the world of infrastructure project financing at large.ⁱ Before the 1970s, the financing of infrastructure projects in developing countries was largely, almost exclusively, the domain of official sources of finance: governments, multilateral institutions, and export credit agencies. At least 90 per cent of these countries' annual spending on infrastructure continues to be derived from public revenues and borrowings, while an equal proportion of investment for infrastructure is still funneled through government sponsors, which assume virtually all project risks.ⁱⁱ In recent years, however, the private sector has emerged as a source of infrastructure financing in a growing number of countries and sectors. Meanwhile, the privatization of assets and the liberalization of services in infrastructure has continued to spread around the world in the 1990s.ⁱⁱⁱ

Underlying the latter trends is a sea change that would appear to hold a special promise for Islamic finance and investment. Almost everywhere, the state has begun to climb down from the commanding heights of the economy.^{iv} Contributing to this change is widespread disenchantment with the performance of state-owned enterprises in the provision of infrastructure services in areas ranging from power and water to transportation and telecommunications. A combination of budgetary constraints, a reduction in the supply of external financial

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assistance for funding large-scale projects, a concomitant increase in the number of claimants among countries for such assistance, and a growing recognition of the scope of infrastructure investments required to sustain development, have all reinforced the need to involve the private sector more directly.^v Facilitating the process are a host of other factors, including technological changes that are paving the way for increased competition and for private entry, and innovations in financial markets, which are allowing private projects to tap a wider array of financing sources and financial products.^{vi}

To be sure, the shift to private financing of infrastructure remains both limited and uneven. A recent survey found that the majority of private projects is concentrated in only a few sectors.^{vii} In the Middle East, and particularly in the Gulf region, which remains the heartland of Islamic banking and finance, private finance has yet to make major inroads. Therefore, whether in terms of volumes of financings or the number of projects, private sector participation in infrastructure is miniscule relative to what has been witnessed in Latin America, East Asia, or Eastern Europe. Moreover, when it comes to privatization and liberalization, there is still a great deal of ambivalence not only among governments but also within the private sector itself.^{viii} One account puts it bluntly: “Despite all the pronouncements and the debate on privatization in the Gulf countries, very little has been achieved in this direction.”^{ix}

Nevertheless, an incipient process appears to be underway, with consequences that at present cannot be fully discerned but that may prove to be far-reaching. The revenue shortfalls that most states in the Middle East, including the petroleum producing countries, have had to contend with for much of the 1980s and 1990s have forced governments throughout the region to actively seek new sources and new methods of financing. In doing so, some have begun to entertain possibilities they would have dismissed in the past. All of them have admitted that they cannot go it alone, that when it comes to the task of financing infrastructure the sheer scale of what is required is beyond their capabilities.^x

The requirements certainly are massive. The World Bank has estimated that between 1995 and 2004 East Asian countries alone will need more than \$1.5 trillion in spending for infrastructure.^{xi} By the year 2010, according to another World Bank estimate, the Middle East and North Africa region will need \$350 billion to 400 billion in additional investments in infrastructure.^{xii} Many governments in the region have made it clear they have no choice but to turn to the private sector—private savings and private investments—to meet these needs. East Asian countries, among them Malaysia and Indonesia, seem to have arrived at this conclusion even before they were enveloped by the financial crisis that erupted in 1997. The fallout from that crisis, including the defection of foreign bankers and investors, along with the collapse or retrenchment of many projects, is bound to accelerate the search for alternatives in financing infrastructure.^{xiii} Together, these trends should augur well for Islamic financial institutions.

To these institutions, investments in infrastructure should hold a great deal of inherent appeal. The investments are in real assets—hardhat projects such as highways, airports, power plants, telecommunications networks, oil and gas pipelines. As such, they represent a realm far removed from the operations associated with hedge funds such as Long-Term Capital Management. Insofar as part of the mission of Islamic banking and finance is the creation of value, infrastructure investments need little justification. Indeed, infrastructure is considered to be a principal determinant of economic success or failure. It has been estimated that a growth of 1 percent in a country’s stock of infrastructure is commonly associated with an increase of 1 percent in its gross domestic product.^{xiv} In that they contribute to growth and productivity *within* Muslim countries, infrastructure investments, be they conventional or Islamic, also represent an antidote to the spate of Islamic equity funds, which, by virtue of their overwhelming concentration on markets in the West, contribute to taking capital *out of* those countries.

The evolution of project financing itself has significant ramifications for Islamic financing and investment. While frequently a source of confusion, and even definitional anarchy,^{xv} project finance is generally understood to consist of a financing structure in which, for security, the financier looks, either exclusively (in the case of nonrecourse financing) or primarily (in limited recourse financing), at the performance of the project itself—at its cash flows, future revenues, and physical assets—rather than at the general assets of the project sponsor.^{xvi} Such financing would seem to be particularly attractive to Islamic bankers and investors. The contractual arrangements involved in project finance necessitate a sharing of risk between providers and users of capital. The sharing of risks among all participants in an enterprise is eminently in conformity with the ethos of Islamic finance. Indeed, it constitutes one of its bedrock principles.^{xvii} On a more tangible level, the off-balance sheet financing that in general is characteristic of project finance corresponds to the preferred modality of the preponderance of participants in the Islamic marketplace. Project financing structures are sufficiently versatile to accommodate a multiplicity of

financial instruments and market participants. Thus all the major vehicles of Islamic finance in the market today—*ijara*, *istisna'*, *mudaraba*, *murabaha*, *musharaka*—can be deployed in project finance. In addition, Islamic project finance is combinable with conventional financing, i.e. lending by private banks, as well as with official sources, especially export credit agencies and multilateral institutions such as the World Bank or the International Finance Corporation.^{xviii}

III. THE LIMITATIONS

Having noted both the needs as well as the opportunities, we cannot overlook the fact that they have yet to be fulfilled by Islamic project finance. A cursory look at the record leads to no conclusion other than that, one important qualification aside, the magnitude of Islamic project financing to date has been paltry.

The qualification pertains to Malaysia, the one country where we do find a sizeable amount of Islamic financing for large-scale infrastructure projects. To date, the largest of these financings has been for Kuala Lumpur International Airport. The funding for this multi-source project amounted to RM8.8 billion or, at the exchange rate prevailing before the East Asian financial crisis, slightly under \$2 billion. Of the latter total, one-fourth, RM 2.2b (roughly \$500 million. at the time) came from a *bai' bi-thaman ajil* syndication. (This instrument, a variation on *murabaha*, is a deferred payment contract allowing for payments in installments instead of cash.) The syndication was securitized through the issuance of notes guaranteed by the government and tradable on the secondary market. The facility was arranged by a consortium of local banks led by Bank Islam Malaysia Berhad. At 20 years, the tenor in this structure was unusually impressive.

Variations on this structure have been used in more than 12 other major private infrastructure projects in Malaysia, prominent among which are the Kuala Lumpur Light Rail system (commonly designated by the acronym “PUTRA”). In more ways than one, not the least of which is the trading of debt instruments, or *bai' al-dayn*, this record reinforces what we already know about the exceptionalism of Malaysia in the Islamic financial market.^{xix} Malaysia is also the exception in the realm of Islamic project finance.

Elsewhere, Islamic money has not gone in a big way into financing infrastructure investments. Discussions of Islamic project finance beyond Malaysia typically produce less than a handful of examples, among them the Hub project in Pakistan and the Equate project in Kuwait is another. Yet at least one of these projects, Hub, illustrates not so much the strengths but the *limitations* of what has been subsumed to date under the rubric of Islamic project finance.

Islamic money for the Hub River Power Project consisted of an *istisna'* facility of \$92 million and a \$110 million *murabaha* facility. At about one-tenth of the total cost, these facilities were fairly small relative to the size of the conventional financing for the project. The Islamic tranches, all short-term credits, allowed for the purchase of equipment from Western suppliers. As such, the importance of Islamic finance in facilitating the consummation of what by all accounts was an exceedingly complex transaction cannot be dismissed. Nevertheless, the Islamic funds did not amount to anything more than bridge finance and were not intended to be anything other than that. Islamic finance in this instance barely merits the designation of project finance per se. Nor was Islamic funding vital for the project at large. More vital was the lending from the World Bank and, perhaps even more so, the guarantee of political risk provided by that institution.^{xx}

The Equate Project, which drew two *ijara* facilities for a joint venture between the Kuwait Petrochemical Industries Company and Union Carbide, involved both a larger proportion of Islamic funding as well as substantially longer tenors (eight and ten years). It probably provides a more definitive indication of the potential contributions Islamic finance can make toward project finance. Yet, questions about the decisiveness of Islamic money for this project aside, the Islamic financial industry has contributed to an extremely limited number of such projects.

While the risks in project finance are higher, so are the rewards. In a decade when profit margins on more traditional activities like trade financing have been squeezed, thanks to increased competition, we have not witnessed a rush to structure project finance Islamically. Most Islamic financial institutions have not devoted to project finance anywhere near the energy that they have in recent years to equity funds. The question that remains to be answered is why has Islamic project finance been a laggard? Why, relative to the needs and the opportunities, is the weight of project finance for the Islamic financial industry as a whole is miniscule? By way of explanation, four sets of factors may be suggested.

First, there are a variety of obstacles that are by no means inherent in or unique to Islamic financial institutions. Any financier, Islamic or non-Islamic, in most parts of the Gulf, or in Egypt or Pakistan, is not operating in a benign economic environment because investment codes are murky, legal remedies are problematic, regulations regimes are capricious, and capital markets are thin.^{xxi}

In such settings, not many private agents, whether Islamic or non-Islamic, are inclined to undertake long-term financing of projects. Project finance is daunting enough in the best of circumstances. It presumes a predictable regulatory and political environment. It also is predicated on a threshold of institutional development, especially in the legal and financial areas, that is absent in many Muslim countries.^{xxii}

The second and third factors that need to be mentioned are characteristic of the Islamic financial industry as a whole. There are intrinsic needs that must be met by any financial system for that system to sustain itself. One of these is liquidity. The problem of liquidity takes us smack into one of the constraints against seriously pursuing Islamic project finance. The disjunction between the short-term nature of deposits of most Islamic financial institutions and the long-term nature of investments in projects continues to plague the industry at large. In the absence of liquidity, it is difficult to attract meaningful investments in illiquid assets, given the absence of a positive cash flow in the development phase—not coincidentally the riskiest phase—of the typical infrastructure project. The Malaysian answer to the liquidity problem, the creation of a market in Islamic private debt securities, is one that is fraught with controversy elsewhere. A partial remedy may come from the infrastructure funds that are coming on stream. The IDB (Islamic Development Bank) Infrastructure Fund, which was launched in 1998, is explicitly designed to allow for asset securitization. However, this vehicle remains in the realm of potential.^{xxiii} And without organized interbank and secondary markets, the liquidity problem will not be overcome. Liquidity is all the more imperative when one considers the size of most Islamic financial institutions. Project finance, after all, is not the province of small players.

The third factor that militates against the spread of Islamic project finance concerns transaction costs. This touches on yet another need in the industry, standardization, a need encountered by anyone who has experienced the problems of structuring Islamic funding for projects. What is at stake here is more than the absence of uniformity of *Shari'ah* rulings. Although partially attenuated in recent years, the latter remains a serious problem: time and time again, we are told of transactions that have had to dispense with Islamic tranches because of conflicting rulings.^{xxiv} However, the issues in standardization go deeper. For other players in the business of project finance, especially conventional financiers, there is often confusion and uncertainty about what will be demanded by different Islamic banks. If one does an *ijara*, and one has resolved inter-creditor issues on ownership and entitlements with one Islamic bank, does one have to go through the same process with other Islamic banks? And does one have to start all over again in a similar *ijara* down the road? It is dilemmas such as these that have led more than one commercial banker to demand: What is the rulebook? *Is there a rulebook in Islamic finance?*^{xxv} The absence of an answer is likely to hamper efforts to deploy Islamic finance for projects more widely. Standardization would seem to be all the more imperative when cross-border transactions bring together multiple creditors as is commonly the case with project finance.

The fourth and final barrier against Islamic project finance concerns the capabilities of Islamic financial institutions. Project finance demands a skill set not possessed by many Islamic banks. It requires a variety of sectoral analysts. It requires financial modelers who can who can prepare complex cash flows projections. It requires expertise in project appraisal and monitoring. Perhaps, above all, it requires specialists in risk management—professionals, along with the attendant organizational systems, with the wherewithal to allocate and price different kinds of project risk. The available evidence suggests that at present few Islamic financial institutions are equipped to perform these tasks or have even begun to think seriously about equipping themselves with the capabilities.

IV. CONCLUSION: THE POTENTIAL

The final question that remains to be addressed is perhaps the most difficult of all: what difference would Islamic finance make? Let us imagine that in the coming decade the constraints mentioned above were to be lifted. Let us imagine that Islamic project finance were to take off. We still need to inquire whether Islamic project finance is destined to become merely an appendage to conventional project finance. To put it differently, and more bluntly, will it simply go along for the ride? Or does Islamic project finance have anything *distinctive* to offer (besides bringing to the table funds that are labeled Islamic)?

This is a more challenging question to answer, but there are several areas where Islamic project finance might be able to add value of a kind that would set it apart from conventional project finance.^{xxvi}

First, it might allow for a lowering of the overall costs of financing in a project. Obviously, this is not an inconsequential consideration even in ordinary circumstances. It could become even more consequential if it could be demonstrated to investors that their current financing costs could be lowered if they refinanced a project Islamically.^{xxvii}

Secondly, Islamic project finance might allow for the undertaking of sound projects that otherwise would not be get off the ground. For example, it might pave the way for projects that do not satisfy the creditworthiness criteria of ratings agencies. Commercial banks face exposure ceilings to borrowers and, even where these ceilings are not an overriding issue, few of them are prepared to offer 10-20 year tenors. In such cases, by plugging the funding gaps, Islamic project finance could make the critical difference. In addition, Islamic funding could permit economically and technically viable projects that are unable to attract conventional financing on account of non-commercial, especially political, considerations. It could be a boon to sponsors of promising ventures who cannot avail themselves of conventional avenues of funding either because they do not have the necessary track record or because they continue to be dogged by past financial problems.

Thirdly, Islamic finance could play a critical role in many projects that are likely to remain beyond the “radar screens” of traditional investors. Among these are small independent power projects, waste water treatment plants, waste recycling and disposal facilities, and small operations in process industries. Such projects may not attract much interest from traditional lenders and investors. Many are decidedly less than fashionable. Few are likely to exceed the \$50-75 million range. Yet all could have a large economic impact.

There is yet a fourth area where Islamic project finance could make a decisive, and perhaps even the greatest, difference. And that is in terms of adjusting the risk profile of projects. Islamic banks may be able to bear certain types of risks that commercial lenders are either unwilling or unable to assume, such as cross-border risks. A specific, and not entirely hypothetical, example of transit risk might involve natural gas or crude oil pipelines or grids crossing one or more Muslim countries. Another might involve terrestrial telecommunication systems, e.g. optical fiber trunk lines, including submarine cables. The key contribution in these, as well as in many other projects, becomes the allocation and mitigation of risk, one of the vital areas in project finance at large.^{xxviii} Obviously, this role too remains largely in the realm of potential. But this is where the greatest value could be added by Islamic project finance.

ⁱ A good overview of the changes that have paved the way for the surge in project finance can be found in World Bank, *World Development Report, 1994: Infrastructure for Developing Countries* (New York: Oxford University Press for the World Bank, 1994). See esp. ch. 5.

ⁱⁱ *Ibid.*, p. 89.

ⁱⁱⁱ For surveys of recent trends, see International Finance Corporation, *Financing Private Infrastructure* (Washington, D.C.: World Bank, 1996).

^{iv} A stimulating account of this phenomenon in the realms of both ideas and policy is offered by Daniel Yergin and Joseph Stanislaw in *The Commanding Heights: The Battle Between Government and the Marketplace that is Remaking the Modern World* (New York: Simon and Schuster, 1998).

^v Philippe Benoit, *Project Finance at the World Bank: An Overview of Policies and Instruments*, World Bank Technical Paper no. 312 (Washington, D.C.: World Bank, 1996), pp. 3-5.

^{vi} Some of these changes are noted in Gary Bond and Laurence Carter, *Financing Private Infrastructure Projects: Emerging Trends from IFC's Experience*, IFC Discussion Paper no. 23 (Washington, D.C.: World Bank, 1994), pp. 1-4.

^{vii} This is one of the major findings of recent surveys summarized in World Bank, *World Development Report, 1994*, pp. 89-96, and IFC, *Financing Private Infrastructure*, pp. 12-14.

^{viii} A review of the limited progress in these areas may be gleaned from Mohamed A. El-Erian and Susan Fennell, *The Economy of the Middle East and North Africa in 1997* (International Monetary Fund: Washington, D.C., 1997), and from World Bank, *Claiming the Future: Choosing Prosperity in the Middle East and North Africa* (Washington, D.C.: World Bank, 1995). See also Nemat Shafik, ed., *Economic Challenges Facing the Middle Eastern and North African Countries* (New York: St. Martin's Press, 1998) and Iliya Harik and Denis J. Sullivan, eds., *Privatization and Liberalization in the Middle East* (Bloomington, Ind.: Indiana University Press, 1992).

^{ix} "Private Finance of Infrastructure Projects in the Gulf," *The NCB Economist*, v. 6, no. 6 (Nov./Dec. 1996), p. 9. The gap between professed commitments and tangible achievement is similarly noted by Roula Khalaf in "The Pressures for Change Mount," Survey on Middle East and North Africa Privatization, *Financial Times*, March 26, 1998. More generous assessments are offered by Martin Amison in "BOTs Will Power Middle East Project Growth," *International Financial Law Review*, v. 16, no. 2 (Feb. 1997), pp. 15-18, and by Jane Pittaway in "Privatization and the Growth of Financial Markets in the Gulf," *International Financial Law Review*, v. 14, no. 2 (Feb. 1995), pp. 23-5.

^x For a discussion of the effects of declining petroleum revenues on the search for alternatives in financing infrastructure, see Gregory Millman, "The Decline of Petro Finance," in *Infrastructure Finance*, v. 4, no. 4 (Aug./Sept. 1995), pp. 71-5.

^{xi} World Bank, *Infrastructure Development in East Asia and Pacific: Towards a New Public-Private Partnership* (Washington, D.C.: World Bank, 1996).

^{xii} According to a senior World Bank official, the financing of infrastructure projects is the biggest economic challenge facing the Middle East and North Africa. Remarks by Inder Sud, Middle East and North Africa Regional Office, World Bank, at Conference on Infrastructure and Finance in the Middle East, Manama, Bahrain, Feb. 27, 1996. The lag in progress in infrastructure development in the region is underscored in Mark Hubbard, "Investment Held Back by Neglect," *Financial Times*, March 26, 1998.

^{xiii} "Asia Crisis Hits Dream Sector," *Financial Times*, Aug. 10, 1998; "In Search of an Alternative Source of Funds," *Financial Times*, Sept. 23, 1997; Ashoka Mody and Michael Walton, "Building on East Asia's Infrastructure Foundations," *Finance and Development*, v. 35, no. 2 (June 1998), pp. 22-5.

^{xiv} World Bank, *World Development Report, 1994*, p. 2.

^{xv} For an elaboration of this point, see "Tracking a Moving Target," *Infrastructure Finance*, v. 6, no. 2 (March 1997), pp. 47-8, and Scott L. Hoffman, *The Law and Business of International Project Finance* (The Hague: Kluwer Law International, 1998), p. 6. In addition to Hoffman, pp. 6-8, authoritative explications of the concept are offered in Clifford Chance, *Project Finance* (London: Clifford Chance Publishers, 1991), pp. 1-2; Peter K. Nevitt and Frank Fabozzi, *Project Financing*, 6th ed. (London: Euromoney Publications, 1995), pp. 3-4; John D. Finnerty, *Project Financing: Asset-Based Financial Engineering* (New York: John Wiley, 1996), pp. 2-4; and Benoit, *Project Finance at the World Bank*, pp. 7-8.

^{xvi} Most projects in fact rely on limited recourse financing, especially in the construction and startup phases. Moreover, while many governments have withdrawn guarantees for private infrastructure projects, other agencies, e.g. multilateral institutions, export credit agencies, and private insurers, have stepped in to provide additional comfort to lenders and investors. For examples, see Deepak Gopinath, "Ready or Not," *Infrastructure Finance*, v. 6, no. 4 (May 1997), pp. 62-4, and "Exposure Only to Partial Risk," *Financial Times*, Sept. 16, 1996.

^{xvii} The affinities between project finance and Islamic finance are noted by Mansoor H. Khan in "Designing an Islamic Model for Project Finance," *International Financial Law Review*, v. 16, no. 6 (June 1997), pp. 13-16.

^{xviii} It is striking to note that at least one of these organizations, the IFC, has even crafted instruments for the Islamic market. See Iyad Malas (Manager, Regional Capital Markets, Central Asia, Middle East and North Africa, IFC), "The Role of the International Finance Corporation in Developing Islamic Leasing," Nov. 27, 1996. What exists in the marketplace today hardly exhausts the possibilities of blending conventional and Islamic techniques in project finance. An exploration of other permutations is offered by Muhammed-Shahid Ebrahim in "Integrating Islamic and Conventional Project Finance" in this volume.

^{xix} An elaboration of this theme is presented in D. Babai, "Islamic Finance in Malaysia: Model or Exception?," manuscript.

^{xx} An extended discussion is offered in Michael Gerrard, *Financing Pakistan's Hub Power Project: A Review of Experience for Future Projects*, RMC Discussion Paper Series 118 (Washington, D.C.: World Bank, 1997).

^{xxi} While a detailed substantiation of this point is beyond the confines of this paper, evidence may be gleaned from the sources cited in fn. 8. See also Joe Saba, "Foreign Direct Investment in the Middle East: A Comparative Assessment of Investment Regimes," Private Sector Development Dept. Paper, World Bank, 1995, and Henry T. Azzam, "Capital Markets in the Arab World" (National U.S.-Arab Chamber of Commerce, April 1995).

^{xxii} Cogent discussions of these prerequisites can be found in Hoffman, *The Law and Business of International Project Finance* and in World Bank, *World Development Report, 1994*.

^{xxiii} While the Islamic Development Bank has stated a commitment to longer term and private sector financing, as one observer notes, "the impact of this policy has yet to filter through, especially in infrastructure finance." "Restructuring Islamic Funds" (editorial), *Islamic Banker*, no. 12 (Dec. 1996/Jan 1997), p. 2.

^{xxiv} Interviews conducted by author 1994-98 as part of research for Harvard Islamic Investment Project.

^{xxv} Ibid.

^{xxvi} The author is greatly indebted to Wael Al-Mazeedi for insights about many of the points that follow.

^{xxvii} As Al-Mazeedi (ibid.) notes in private communication, the latter is a "big if, considering the propensity of Islamic finance as currently practiced to *add* to the overall costs of financing." Leasing structures constitute perhaps the sole area where the industry can plausibly claim to have lowered overall financing costs.

^{xxviii} For recent discussions, see Arturo Olvera Vega, "Risk Allocation in Infrastructure Financing," *Journal of Project Finance*, v. 3, no. 2 (Summer 1997), pp. 38-42; and Timothy Irwin et. al., eds., *Dealing with Public Risk in Private Infrastructure* (Washington, D.C.: World Bank, 1997).