Market Financing and Other Factors Affecting Risk Management of the Fonds d'Equipement Communal

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Prepared by

Priscilla M. Phelps
PADCO, Inc.
Washington, DC

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Executive Summary

The *Fonds d'Equipement Communal* (FEC) is the financial institution whose purpose is to provide municipal investment financing in Morocco The FEC has recently undergone a statutory change from an *établissement public* to a *societé anonyme* — that is, an autonomous banking institution While the FEC remains a public sector institution, this change in status will result in reduced government protection, the possibility of increased competition from private banks, and the need for the FEC to depend on the financial market for its financing As a result, the FEC is now exposed to risks to which it was not subject in the past Therefore, the management of risk is an emerging concern for the FEC

Risk Exposure of the FEC

All financial institutions are exposed to a range of risks, often categorized broadly as operational, market, and financing risks, and the FEC is no exception Financial institutions in Morocco are exposed to the additional risks found in emerging financial markets The FEC is subject to yet another layer of risk because of its status as a quasi-public financial institution whose client base is defined by national policy, rather than by marketing strategy

The FEC operates simultaneously in a number of different "environments" and there are risks associated with each one of them Each of these contexts may constrain the FEC's ability to address risk, but at the same time each one is changing so that these risk factors may be able to be addressed over time through ongoing reforms The four key contexts for the FEC's work are the following

Policy and Legal Environment The FEC is especially influenced by the legal and policy frameworks of its two key sectors the banking sector and the local government sector These frameworks create requirements to which the FEC must respond and create a number of risks for the FEC

Financial Markets The limitations of the Moroccan markets present risks to the FEC's liquidity and growth Also, the growing competition in the markets may mean that other financial institutions will be competing for the FEC's clientele

Local Government Sector Transformation in the municipal sector, limitations in capacity of local governments, and the peculiarities of their financial situation all present risks to the FEC

FEC Heritage and Operations The FEC's current operations and its historical role in the municipal sector in Morocco present risks, ranging from the composition of its loan portfolio to restrictions on its activities to the nature of its "corporate culture "

FEC's Risk Management Concerns

FEC management is most concerned with market and financial risk, especially "liquidity risk " The FEC's concerns could be summarized as follows *the FEC needs to be able to raise sufficient funds at an affordable cost to satisfy future customer demand while remaining a profitable organization* There are a number of risk issues inherent in this statement, including liquidity risk (sufficient funds), interest rate risk (affordable cost), market risks (customer demand), and credit risk (profitability)

Several ideas for managing the various risks listed above are under consideration and being tested by the FEC, such as the development of a credit scoring system for borrowers and the shift in emphasis from foreign funds to local currency funds Both of these ideas have considerable merit and are discussed in detail in this report The FEC may be able to take advantage of reforms in the financial sector to lower risks associated with its own financial structure The report also addresses whether the FEC should consider changes in its relationship to borrowers to reduce certain risks

Risk Management Techniques in Municipal Finance

A number of techniques and models to overcome the risk of municipal investing are developing worldwide This report describes a number of the institutional models and mechanisms The principles behind these models are universal and can be summarized as follows

Choice of Financing Approach

Internationally, there are two principal approaches to private market-based municipal infrastructure finance at the institutional level the "corporate approach" and the "project finance" approach There are intermediaries involved in both approaches, playing somewhat different roles, but ideally in both cases helping ensure the efficiency, and lower the risk, of the financing process

Currently the Moroccan municipal finance system is a combination of government financing and the corporate approach, as carried out by the FEC Ongoing attention to the feasibility of local government privatization (which is a form of project finance) suggests that the project finance approach is gaining more credence in Morocco The FEC may be able to lower its own risks through the addition of a project finance approach

Management of the Quality of the Credit Portfolio

Major risks encountered in municipal credit analysis and management relate to the risks of the municipal sector The FEC might consider a number of measures to increase credit quality and improve its management of credit risk, such as improving information, for instance by requiring more detailed information from borrowers, strengthening its analytical efforts, perhaps by requiring market studies, and improving project security and structuring by including credit enhancements, such as reserve funds

The Use of Credit Enhancements

Credit enhancements are mechanisms that improve the risk/return trade-off of an investment They can be employed with both project and corporate approaches to lower investor risk The challenge is to create credit enhancements that do not introduce adverse incentives into the system Guarantees are increasingly discounted as credit enhancement mechanisms in municipal finance because they may create an incentive to default on the guaranteed loan, unless there is a sufficient penalty for the borrower associated with doing so

Other Techniques to Overcome Market Weaknesses

Even with credit management and credit enhancements, efforts may still be needed to overcome specific market weaknesses, in particular the short-term nature of the market Successful experience with overcoming this market limitation is very limited, but some models are being tried, including the use of variable rate instruments, market-making mechanisms that help ensure investor liquidity, and the use of "puts," which commit the issuer to take back an investment at the discretion of the investor after a certain point in time

Suggested Risk Management Approaches for the FEC

A number of recommendations are made that, if successful, would allow the FEC to better manage risks related to its financing activities and increase the level of resources raised for municipal infrastructure in Morocco These include the following

Employ More Diverse Financing Approaches

Currently, FEC financing is based on a "corporate approach" that has focused on building up the balance sheet of the organization The FEC might experiment with the project finance approach to expand the impact of its activities, explore more rigorous match-funding practices in its portfolio, and consider new concepts, such as acting as a bond bank, securitizing a portion of its outstanding portfolio, or forming a leasing company

Expand Credit Risk Evaluation and Credit Enhancement Techniques

The FEC is already considering the development of a more rigorous credit evaluation and scoring system for its local government borrowers The topic of credit scoring is explored in detail in Appendix II of the report ("Proposed Approach for Development of a FEC Credit Scoring System") Based on a review of a number of FEC loan evaluations, the conclusion is that the FEC is justified in focusing attention on the development of a more rigorous credit evaluation system There would be benefits for the FEC, for its borrowers, and for its investors from the implementation of such a system

Increase Local Currency Borrowing

Besides the ideas discussed in the section above on diversifying its financing approaches, the FEC may have other options for local currency borrowing, including using the USAID Housing Loan Guarantee for long-term funds and continuing its recent program of issuing *Certificats de Depôt* for money market funds There may be some doubt, however, about how much local currency borrowing the market can absorb without evidence of a longer-term financing strategy by the FEC and improvements in some of its financial ratios

Explore International Borrowing Options

FEC management has expressed the hope that the organization will in the future be able to raise financial resources internationally without the government currency exchange guarantee But to date, the FEC's only experience with international financing has been developmental borrowing from USAID, the World Bank, and others (see abbreviated cash flow statement, below) One possibility for the FEC during its continuing transition to a more commercially-oriented institution may be to borrow from development finance institutions that are more commercially oriented in their approach to lending

A major hurdle for a private international borrowing is the need for the FEC to have a credit rating from a respected international ratings firm While the FEC understands it is not ready for a true ratings process, it may be possible to carry out an informal rating in the medium term, perhaps under the auspices of the USAID HG program

Develop a Treasury Management Strategy

While taking into consideration the management of the risks discussed in this document and the various techniques proposed, the strategy chosen by the FEC to expand its financial resources must balance the requirements of the organization, the capabilities of the financial market, the preferences of investors, and the needs and demands of the municipal clientele

Within the investor group, the FEC must also balance the objectives and requirements of current investors (including development-oriented lenders) and new investors Ideally, the development of the strategy would bring about a consensus-building process among the various stakeholders in the sector The strategy should address the characteristics of the municipal sector, a forecast of the demand for funds, an examination of the role of the organization in financing the municipal sector, and the funding requirements of carrying out that role It would identify potential sources of funds, their costs, and the costs of raising them, and address how assets and liabilities will be balanced And it would include financial forecasts that project the cash inflows and outflows of the bank's operations under different scenarios

Develop a Risk Management Strategy

It is also suggested that the FEC develop a risk management strategy for the organization that addresses the range of risks identified in the report, beginning with those that are the highest priority Among the key elements that this strategy should address would be treasury management, as discussed above, as well as issues related to liabilities and insurance coverage, the security of information systems, and measures to address the "Year 2000" problem, cash handling, and measures to prevent corruption in both programmatic and administrative activities

Proposed Actions

A list of actions are proposed for the short to medium term, and over the longer term (strategic actions) The short-term actions that are recommended range from beginning a four-step process for implementation of a credit-scoring system to hiring a financial advisor for the FEC to identify market opportunities as the financial sector develops Strategic actions include development of the treasury strategy, development of a broader risk management strategy, and changes in corporate culture to encourage risk management throughout the organization

Market Financing and Other Factors Affecting Risk Management of the Fonds d'Equipement Communal

Introduction

The *Fonds d'Equipement Communal* (FEC) is the financial institution whose purpose is to provide municipal investment financing in Morocco The FEC has recently undergone a statutory change from an *etablissement public* to a *société anonyme* — that is, an autonomous banking institution While the FEC remains a public sector institution, this change in status will result in reduced government protection, the possibility of increased competition from private banks, and the need for the FEC to depend on the financial market for its financing As a result, the FEC is now exposed to risks to which it was not subject in the past Therefore, the management of risk is an emerging concern for the FEC

All financial institutions are exposed to a range of risks, often categorized broadly as operational, market, and financing risks, and the FEC is no exception Financial institutions in Morocco are exposed to the additional risks found in emerging financial markets The FEC is subject to yet another layer of risk because of its status as a quasi-public financial institution whose client base is defined by national policy, rather than by marketing strategy

A number of ideas are under consideration and being tested by the FEC for managing the various risks listed above For instance, the idea of developing a system for managing credit risk, such as a credit scoring system for borrowers, has been suggested Also in the financing area, the need for a shift in emphasis in raising loan capital from foreign funds to local currency funds is taking place Both of these ideas have considerable merit and are discussed in more detail in this report The FEC may be able to take advantage of reforms in the financial sector to lower risks associated with its own financial structure The report also addresses whether the FEC should consider changes in its relationship to borrowers to reduce certain risks

In some ways, the situation of the FEC is not unique A number of countries with emerging financial markets also have the need to raise significant additional financial resources for municipal infrastructure As a result, a great deal of experimentation is taking place in this field The FEC may be able to take advantage of international experience in "emerging market municipal finance" to design strategies to respond to local government demands for financing while adequately managing risk The ability of the FEC to mitigate risks in order to raise the capital investment funds required by its borrowers will affect its future viability and its ability to continue to serve its crucial role in Morocco's economic development

I. Identifying and Defining the Risks Affecting the FEC

A Definitions of Risk

Risk can be defined in a number of ways Two definitions that reflect the most common uses of the term follow

- **Unpredictability of outcomes, or outcomes more extreme than acceptable** This is the "textbook" definition of risk While risk is generally associated with negative outcomes, positive results add risk as well An organization with occasional excellent results is riskier, from an investor's point of view, than one that always has good results An example of this effect is the riskiness attributed to the high-tech industry, with its high business failure rate and unpredictable returns, versus a lower-risk investment in basic industry, which is more predictable over time, even though it offers a lower rate of return
- **Lack of control over situation at the time it is taking place** The risk of a situation increases as the degree of control that can be exercised by an institution over that risk factor decreases If risks are emanating from a source that is difficult to influence — such as the financial sector in Morocco may be for the FEC — risk increases and will be difficult to manage Similarly, timing affects risk, situations that were controllable at some earlier point in time may not be today An example is the "Year 2000" problem, which, for a number of reasons, gets more difficult for organizations to address as the year 2000 gets closer

B Why Risk Is of Concern to the FEC

The risks to which the FEC is subject is a concern first to management, because it affects the FEC's ability to successfully carry out its institutional purpose as principal lender to the municipal sector The FEC is working in a financially difficult and rapidly changing environment Dealing with unanticipated (sometimes avoidable) outcomes may be costly to the organization and can absorb management time that might be spent on potentially more important and profitable tasks

But these risks are also a concern to outsiders, particularly potential investors in the FEC The FEC must increasingly access private financial markets to raise funds for its operations Investors will evaluate both risk and returns when deciding whether to invest funds in the FEC, and will charge the FEC a premium for what they believe to be an organization with a higher level of risk, or will forgo investing in the FEC altogether

C Sources of Risk for the FEC

The FEC operates simultaneously in a number of different "environments," and there are risks associated with each one of them Each of these contexts may constrain the FEC's ability to address risk, but at the same time each one is changing so that these risk factors may be able to be addressed over time through additional reforms, if these needs can be properly identified The four key contexts for the FEC's work appear to be the following

Policy and Legal Environment The FEC is strongly influenced by national policy and related law and regulation The FEC is especially influenced by the legal and policy frameworks of its two key sectors the banking sector and the local government sector These frameworks create requirements to which the FEC must respond, and create a number of risks for the FEC

Financial Markets The FEC will be increasingly dependent on the financial markets for raising the capital it needs to grow and serve its clientele The limitations of the Moroccan markets present risks to the FEC's liquidity and growth Also, the growing competition in the markets may mean that other financial institutions will be competing for the FEC's clientele

Local Government Sector Moroccan local governments are the FEC's principal clientele at the present time Transformation in this sector, limitations in capacity of local governments, and the peculiarities of their financial situation all present risks to the FEC

FEC Heritage and Operations The FEC's current operations and its historical role in the municipal sector in Morocco create certain risks for the organization The effects range from the composition of its loan portfolio to restrictions on its activities to the nature of its "corporate culture "

D Types of Risks to Which the FEC Is Exposed

As mentioned earlier, the risks that affect financial institutions are generally categorized as follows

Operational Risk	Risk related to physical operations, including those in the field, and information systems
Market Risk	Risk related to clientele and competition
Financial Risk	Risk related to financial management, the financial structure of the company, and the availability of financing

The following table illustrates, in detail, examples these risks for the FEC in each of the three categories

Table 1
Risk Exposure of the FEC

Operational Risk	Market Risk	Financial Risk
• Lawsuits from borrowers or others • Fraud in handling of funds • Risks associated with poor quality of information • Liabilities associated with field operations and property • Risk of computer system failure or obsolescence ("Year 2000" problem) • Future changes in banking law or other laws governing it	• Uncertainties associated with decentralization process • Financial restrictions in local government law • Competition from other financial institutions • "Competition" from public agencies • Lack of information on aggregate demand • Changes in demand for financial services • Restriction or expecta-tions of the FEC as a result of its historic role (lending to private operators)	• Changes in interest rates (interest rate risk) • Changes in exchange rates (currency risk) • Failure to raise sufficient funds in forms appropriate for borrowers (liquidity risk) • Mismatching the term of FEC assets and liabilities (liquidity and interest rate risk) • Non-recovery (or late recovery) of funds loaned to borrowers (credit risk) • Failure to attain financial requirements of banking law • Inability to maintain an efficient and cost-effective lending process • Other challenges to improved FEC net income and profitability

II. FEC Perspective on Risk

A FEC's Risk Management Concerns

In discussions with FEC management, the concerns expressed about risk related mostly to the market and financial risk categories above Of the financial risks mentioned, "liquidity risk" was the greatest concern For the FEC, liquidity risk appears to mean the inability or difficultly of raising sufficient financial resources in a timely manner to satisfy customer demands Liquidity can have several meanings in the financial context, each of which has certain risks associated with it (see text box on page 12), and each of which could potentially affect the FEC

The FEC's concerns could be summarized as follows *the FEC needs to be able to raise sufficient funds at an affordable cost to satisfy future customer demand while remaining a profitable organization* There are a number of risk issues inherent in this statement, including liquidity risk (sufficient funds), interest rate risk (affordable cost), market risks (customer demand), and credit risk (profitability)

The FEC's increasing attention to the issue of risks reflects the transformation of the market and financial environments in which the organization operates As government guarantees are curtailed, the FEC is emerging from a sheltered situation with respect to its financing, into an evolving private financial market On the marketing side, the FEC expects increasing competition as local government privatization is encouraged and other banks potentially enter the municipal finance field The FEC will be increasingly reliant on private investors for its financing These investors are generally not familiar with the municipal sector and are fairly conservative in their investment decisions, and it will be necessary for the FEC to devise ways of relating to its municipal clientele that will increase investor interest in the FEC Therefore, the FEC's concerns about financial and market risk appear to be the correct ones [1] (The municipal finance mechanisms listed in Section IV E, and detailed in the case studies in Appendix III, often address a number of risks simultaneously)

Nearly all of the risks identified in Table 1, above, as well as the FEC's "priority risks" have financial implications, but the responsibility for addressing them is spread throughout the organization Responsible parties include those in charge of finance, information systems, engineering, corporate policy, etc Responsibility for addressing even just the priority risks resides in credit management, financial operations, treasury management, cash management, marketing, and fundraising Therefore, addressing these risks will require coordination throughout the organization As in many organizations, no one person appears to be responsible for risk management at the FEC There is a growing trend in the private sector for the appointment of a senior person to coordinate and oversee risk management, guided by a corporate risk management strategy Such a position has not yet been considered by the FEC and

[1] During discussions with the FEC related to this analysis, the concept of the FEC becoming a depository institution for the municipal sector was mentioned The assumption in this report is that the costs of such a strategy would far outweigh the benefits and that the funds of private investors and lenders are a more feasible source of future additional financing for the FEC than municipal deposits

may not be warranted at the present tıme, although the ıdea of developıng a rısk management strategy should be consıdered and ıs dıscussed later ın thıs report

Gıven the concern about raısıng suffıcıent funds for lendıng ın the future, ıt ıs useful to analyze the suffıcıency of the loan funds currently avaılable to the FEC The exhıbıt below shows an abbrevıated forecast of cash flow for the FEC for 1997 to 2000

Exhıbıt 1
Fonds d'Equıpement Communal
Cash Flow Forecast, 1997-2000
ın thousands of dırhams[2]

	Actual 1996	Projectıon 1997	Projectıon 1998	Projectıon 1999	Projectıon 2000
Expendıtures					
Loan Dısbursements	931,272	966,000	1,202,000	1,322,000	1,528,000
Repayments	747,203	1 069 761	1,005,266	1,291,289	1,499,703
Operatıng Expenses	22,450	21 760	24,000	26 200	28,620
Money Market Repayment	-	-	-	-	-
Other Dısbursements	26,361	33,250	36,510	46,710	60,723
Total Expendıtures	1,727,286	2 090,771	2,267,776	2 686,199	3,117,046
Income					
Inıtıal Balance	89,826	57,483	37,852	20 362	15,880
Loan Collectıons	873,525	955,877	1,180,286	1,336,718	1,606,225
Loan Proceeds					
Local Market	150,000	380,000	400,000	700,000	1,100,000
External Borrowıng	518,166	455,774	515,000	540 000	230,000
Money Market Borrowıng	90,000	160,000	70,000	100 000	170,000
Other Receıpts	73,368	119,489	85,000	5 000	5 000
Total Income	1,794 885	2,128 623	2 288 138	2,702,080	3,127,105
Balance	67,599	37,852	20,362	15,881	10,059

The external borrowıng shown ın thıs forecast reflects loan commıtments from the World Bank, the European Communıty, USAID, KfW, and others that were expected as of last year The plan assumes that nearly Dh2 6 bıllıon (US$275 mıllıon) can be raısed ın the local fınancıal markets between 1997 and 2000, not countıng money market borrowıng (*Certıficat de depôts*, dıscussed later) (These local market loans are hıghlıghted ın the exhıbıt above) In the absence of these borrowıngs, the FEC may be able to use ıts concessıonary loans at a faster rate than shown

[2] The exchange rate of dırham (Dh) to the U S dollar ıs approxımately 9 5 Dh per dollar

However, some of these are targeted for specific types of loans that may not be able to be originated more rapidly than is shown

While it has not often been the case, recently the FEC's operation has been profitable enough to make a contribution to its capital reserves Maintaining the proper ratio between equity (or own capital) and debt will be an ongoing concern for the FEC, both to conform to the capital ratio requirements of the Banking Act and to ensure investors that adequate capital reserves are maintained The FEC's operating results for 1997 show a contribution to capital of Dh29 million for the year

B Risk Management Strategies Considered by the FEC

The FEC has considered a number of risk management strategies and has taken some steps to implement them For instance, the idea of developing a system for better managing credit risk, such as a credit scoring system for borrowers, has been suggested, and efforts to more rigorously analyze loan requests are already being made Also in the financing area, the need to shift emphasis from the raising of foreign funds to local currency funds has been acknowledged The FEC has already raised Dh125 million of funds in the private money market using *certificat de depôt* of up to five years in term and has registered a total issuance of Dh750 million The concept of a local currency borrowing under the USAID Housing Guarantee (HG) program was discussed with the FEC, using the analysis included in Appendix IV Other risk management strategies may be under consideration, but were not discussed in detail by the FEC

III. Principal Sources of Risk for the FEC

A The Municipal Sector

Morocco's municipal sector policy is generally supportive of municipal finance, relative to those in other countries, as shown in detail in Appendix I Yet the country is poor and the municipal sector is relatively undeveloped in terms of its institutions and practices Therefore, there are a number of risks to which the FEC is exposed as a result of its linkage with the municipal sector that affect its operation and its financing alternatives The principal risks appear to be

- risks created by limited ability of local governments to forecast demand for services,
- limitations on the local government ability (or willingness) to raise and control revenue sources,
- limited expertise of local governments in carrying out projects,
- risks created by poor quality and lack of information,
- potential competition of the FEC with central government agencies also providing funds for projects,
- lack of private sector partnership in local government project planning and development, and
- lack of a credit rating system for local governments

Addressing some of these risks could create additional risk for the FEC For instance, more involvement of the private sector in the project development process could improve the quality of projects financed by the FEC However, more involvement from private banks in financing would create competition in the sector that might be good for local governments, but a risk factor for the FEC

Overcoming Risks Related to the Municipal Sector

There are a number of potential strategies for overcoming the risks detailed above, these are discussed in more detail below In general, the FEC should probably limit its involvement in combating the weaknesses in the municipal sector, through training, etc , and focus instead on 1) improving the performance of local government borrowers by establishing more stringent borrower criteria and requirements, and 2) structuring financial transactions that work around the financial weaknesses in the sector

B The Financial Sector

The financial sector is the second, and perhaps more important, source of risk for the FEC Morocco's financial sector is reforming quickly, resulting in new options for banks and other private entities, including the FEC The results of these reforms include the development of an open currency market, increased pricing transparency in financial transactions, more financial sector competition, development of a secondary debt market, and the appearance of market makers

In spite of the reforms under way and continuing, Morocco is still experiencing a number of the limiting characteristics of emerging financial markets These characteristics place genuine constraints on municipal financing The market is still underdeveloped institutionally, is under-capitalized, and provides mostly short-term financing In addition, the diversity of financial mechanisms in the market is still limited, and investors are very conservative Another characteristic is that there is limited expertise in structuring financial transactions to take advantage of the reforms that have taken place For instance, the role of "financial advisor" does not yet seem to exist in Morocco Financial advisors provide intelligence to public and private sector institutions about the options for financing in the private market and the interests of investors Similarly, although the legal framework is largely in place for the capital market in Morocco, the investment banking function is largely nonexistent, making it difficult to take advantage of some of the reforms that have taken place

How Does Liquidity Affect Risk in Financial Markets?

The term "liquidity" has several meanings in international finance, and each of them is relevant to a discussion of risk in municipal finance The FEC is principally concerned about one important aspect of liquidity (#3, below), the others may also need to be addressed in Morocco to build a sustainable municipal finance system

Liquidity refers to the following characteristics of financial markets

1. *The amount of financial resources circulating in the financial sector* In this sense, illiquid financial markets are those in which funds are in short supply, stock and bond issuances are undersubscribed, and interest rates may be elevated This situation does not seem to apply in Morocco
2. *Whether a particular investment can be easily sold, or 'liquidated* A financial investment that can be easily sold is said to be a liquid investment This liquidity is a function of the structure of the financial system (whether a secondary market and market makers exist) as well as of the size of the issuance and specific legal nature of the instrument itself The lack of this type of liquidity may be a problem in Morocco, although a secondary market is in place
3. *The ability of a particular institution to raise the cash it needs for its operations in a market* The FEC is concerned about its liquidity risk in this sense because of the difficulty it expects to experience in raising the type of funds it will need for its future operations, even though there is a large supply funds in the overall market This is clearly a concern in Morocco

Overcoming Risks Related to the Financial Sector

There are a number of potential strategies for overcoming the risks related to the financial sector In general, they will require the FEC to experiment and "push the market " One challenge is to determine how quickly the market can absorb these innovations, the services of a financial advisor would help the FEC in determining this

A second challenge may be for the FEC to address constraints on raising resources not just as a fundraising problem, but also as a resource management problem that will require it to better use the resources at its disposal Similar to many development finance institutions with a history in the public sector, the FEC has a mismatch of assets and liabilities that works in its favor — loans to borrowers are generally of shorter term than the FEC's borrowed debt, and the funds borrowed by the FEC act as a revolving fund within its capital structure Loan terms available from the FEC in the past have been dictated in many cases by the developmental objectives of its creditors, such as the World Bank and USAID, rather than by the realities of the market The FEC understands that this situation will be changing as the proportion of market financing increases

C FEC's History as a Public Entity

In the past, government guarantees gave the FEC access to international development finance and domestic financing from the *Caisse de Dépôt de Gestion* (CDG), which accesses savings in the social security system While there are still considerable existing funds available to the FEC that were borrowed under the prior policy framework, in the future, the FEC expects to operate more as a regular bank and raise funds in the local markets Local market funds are limited in term, resulting in a shortening in duration of the financing available

Public sector banks are generally considered to be subject to lower levels of risk than banks in the private sector In many countries, this lower risk creates a distortion in the financial sector, especially when public banks attempt to compete with similar private sector institutions Whether the public sector affiliation, in fact, provides the benefit of lower risk depends on the nature of the institution's relationship to the public sector In the FEC's case, it could be argued that its public purpose actually exposes it to more risk than a regular bank

Table 2
Comparison of Risk Levels of the FEC versus Other Banks

	FEC	Other Financial Institutions
Policy/Legal Environment	• Governed by Banking Law • Affected by Ministry of Interior Rulings related to municipal finance • Board of Directors only public sector officials	• Governed by Banking Law • Boards of Directors include private sector and representatives of clientele
Financial Markets	• Access to debt market only, same instruments as private banks • Current capital structure includes concessionary funding • Investors unfamiliar with clientele and projects • Relatively small size of potential debt issues may reduce investor liquidity and raise prices	• Access to both debt and stock market • Current capital of some institutions includes government capital • Investors more familiar with typical bank activities • Bank debt issue size varies
Clientele	• Local Government Sector only • Purpose requires long-term funding not easily raised in local markets	• Able to serve variety of client groups • Not required to serve markets for which financial resources are not available

The most recent FEC borrowing under the prior policy regime was a US$70 million loan from the World Bank, signed in early 1998 A summary of this loan, provided by the World Bank, mentions an institutional development component of the project related to this loan that will provide funds from the French government to carry out a strategy study related to the FEC's integration into the banking system Another institutional development study was also recently carried out by the consulting firm Booz Allen The results of the Booz Allen study were not made available at the time of this analysis It is assumed that this study, and the prospective French study, will also address the issues of risk management related to financing

The World Bank loan agreement also provides funds for training of local government officials This project component gives rise to a concern related to the FEC's history in the municipal sector, namely, what role the FEC is expected to play in the municipal sector in the future If the organization is expected to compete with other financial institutions for funds, and potentially for clientele, will it also be expected to carry out public purposes, such as the training of municipal officials? While in this case the funds are being provided for this activity by the World Bank, perhaps at no cost to the FEC, this function will absorb the time of personnel and management

More importantly, the FEC is taking on a role with respect to its clientele that may be in conflict with its other role as their banker Further, these functions may be difficult for private investors to evaluate, when comparing the FEC to other financial institutions Perhaps this concern can be overcome by segmenting the training function of the FEC into a separate division that can be run at a profit, or at least break even However, the FEC will need to reach a consensus with the government regarding whether it will be allowed to function as a private bank, on a "level playing field" with other banks, or whether it is expected to continue to function as an arm of government

Finally, it is not clear whether the World Bank loan, except for its related technical assistance, was ever looked at as a potential tool to help the FEC gain access to the private financial market There are examples of the World Bank structuring loans in such a way as to encourage private financing in various institutions It appears that such an approach was not followed in this case Yet funds provided by concessionary lenders will be present in the capital structure of the FEC for a long time to come How these funds can be used to the FEC's advantage for leveraging private finance should be explored

Presently, there may even be conflicts between prior and future creditors that will need to be resolved The FEC is in a unique position in that it is entering into private market financing following a long period of guaranteed and concessionary financing The presence of this public finance could be advantageous for the FEC or could undermine its efforts to finance privately, depending on how the various financial resources are deployed For instance, USAID generally expects to occupy the highest priority position with respect to loan security How private financing affects their position has not been clearly explained It may be sufficient to say that prior lenders have the government guarantee as their security and therefore are not affected by later private borrowing, but this policy requires articulation, for the benefit of both existing lenders to the FEC and those who may become investors in the future

Overcoming Risks Related to FEC's History

The FEC has some options for overcoming the risks related to its history as a purely public sector institution These risks appear to have mostly to do with requirements and limitations that may be put on the organization for policy reasons (for instance, who will define the FEC's role with respect to local government privatization?), and with the integration of its prior and future financing strategies To the extent that these issues are not clearly resolved, the FEC should take the initiative, perhaps by means of issuing a risk management strategy or other policy statement, to clarify the level of autonomy it possesses to address risks created by its history as a true public sector institution

IV. Risk Management Techniques in Municipal Finance

A Choice of Financing Approach

Internationally, there are two principal approaches to private market-based municipal infrastructure finance at the institutional level These two approaches are labeled here the "corporate approach" and the "project finance" approach (This does not include municipal finance through government entities, which is a third, non-market, option) There are intermediaries involved in both approaches, playing somewhat different roles, but ideally in both cases helping ensure the efficiency, and lower the risk, of the financing process Municipal finance systems around the world use either or both of these models, depending on their evolution and local conditions

Corporate Finance Approach

- Resources are raised for the balance sheet of the bank (or other financial institution or intermediary) and loaned to borrowers
- Credit enhancement takes place at the corporate level
- Bank acts as lender and servicer of private investment
- Investor funds are invested in the bank
- Source of repayment for investors is income of the bank

Project Finance Approach

- Resources are raised for the project or the project sponsor
- Credit enhancement takes place at project level
- Bank or other intermediaries play a number of roles structuring projects, lending their credit ratings, underwriting financing, providing services, and/or co-financing projects
- Investor funds are invested directly in project
- Source of repayment for investors is revenue of project

Investors' requirements are similar under both approaches Investors will prefer municipal investment mechanisms that 1) return a market rate of return, 2) lower the risk that they may not be repaid, and 3) provide them with information that can be used to make judgments about the quality of the investment on an ongoing basis

Currently, the Moroccan municipal finance system is a combination of government financing and the corporate approach, as carried out by the FEC Ongoing attention to the feasibility of local government privatization (which is a form of project finance) suggests that the project finance approach is gaining more credence in Morocco Would a greater level of funds flow into municipal projects and would the FEC be able to lower its own risks through the use of a project finance approach? These are questions that should be examined

At the local government level, the distinction is made between debt issuance for tax-backed (general obligation) and revenue-backed projects (as demonstrated in detail in the table on credit rating criteria, Exhibit II-1, "General Credit Rating Criteria and Their Application to Tax- and

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Revenue-Backed Debt Issuances") General obligation debt is secured with the entire revenue stream of the local government, principally tax revenues The alternative is projects whose financing is secured with specific revenue flows The suggestion that FEC consider a project financing approach does not necessarily imply that the projects themselves would necessary be backed by a specific stream of revenues at the local government level The FEC could take a project-financing approach (serving as facilitator of a direct private investment in a specific local government project), whether the project financing was to be repaid from specific project revenues or from general obligation revenues

B Correlation of Loans Types to Funding Sources

Offering loans to clients that match (in term, interest rate, and other characteristics) the characteristics of the funding source might be considered the most elementary risk management strategy for a financial institution This approach to risk management is sometimes referred to as "match-funding," because sources and uses of funds are matched to reduce risk Unfortunately, it may not always allow the institution to offer loan products that match the needs of its clientele But by taking a creative approach to the identification of funding sources and client needs, the institution may be able to manage risks and satisfy clients simultaneously

Secondary markets are an example of a mechanism that allows the apparent restrictions of match-funding to be overcome Secondary markets provide long-term funds, even though any particular investor may own the investment that raised the funds for only a limited period of time, later selling it in the secondary market to another investor However, as long as the market for the investment remains sound, the market provides the long-term investment funds that can be used to fund long-term loans

The FEC, like many developmentally oriented financial institutions that are making the transition to market financing, has been able to provide loan products to its clients that match the long-term nature of its concessionary funding without needing to test whether other shorter-term loans would suffice or whether other lenders might provide the longer-term funds At the same time, these institutions often use their external resources as a revolving fund that is recycled into numerous short-term loans that might actually be able to be funded with market sources If funding currently available in the local market is not well suited to existing loan offerings, new loan products may need to be created that will match the local funds, and the concessionary funds or direct private investment reserved for situations where longer-term funds are required Alternatively, other investors willing to make long-term investments may be found In Guatemala, a country where very little long-term financing is available in the "visible" market, commercial banks use fiduciary accounts to facilitate direct private investment in municipal projects

C Management of the Quality of the Credit Portfolio

Private investors seek three key characteristics of projects or intermediaries in which they invest 1) sufficiency of the revenue source from which they will be repaid, 2) predictability of the revenue source, and 3) control over the revenue source (or other security) if there is a default or shortage of funds available from the intended repayment source

The presence of these conditions will affect investor interest in investment in the FEC or in projects that may have originated by the FEC The credit evaluation process is meant to analyze these characteristics of the borrower and is therefore a critically important function of the organization Credit rating systems evaluate these same characteristics from a number of perspectives (For a detailed discussion of credit scoring, see Appendix II)

Major risks encountered in municipal credit analysis relate to the risks of the municipal sector discussed in Section III A The FEC might consider whether any of the following measures would increase credit quality and improve its management of credit risk

Information

- Require more detailed information from borrowers
- Carry out more rigorous analysis of borrower finances and project economics
- Require ongoing financial disclosure during loan repayment
- Develop internal credit scoring system

Analysis

- Require market studies and stronger evidence of user commitment prior to project construction
- Use marginal cost and revenue approach to project analysis
- Require program or service cost analysis of budget from borrowers

Project Security and Structuring

- Require commitment to cost recovery for projects, base loan decisions on rate increases
- Develop "intercept accounts" that give the FEC a first claim on the proceeds of the TVA transfer, or other income
- Promote private sector risk-sharing in municipal projects
- Structure projects to include credit enhancements, such as reserve funds (see following section)

D The Use of Credit Enhancements

Credit enhancements can also be employed with both project and corporate approaches to lower investor risk Credit enhancements are mechanisms that improve the risk/return trade-off of an investment Generally, credit enhancements improve the security of the investor and are intended to improve demand for the investment Credit enhancements may be directly related to the purpose of the investment itself or may come from some other sources Therefore, credit enhancements are generally categorized as one of the following

Internal Enhancements

These are security mechanisms that are "built into" the project or financing structure The simplest internal enhancement is a reserve fund, created out of a portion of the loan proceeds, that is used to pay debt service if the borrower has a shortfall in cash for debt service Other ınternal enhancements could ınclude debt servıce coverage, rate covenants, sınkıng funds for debt servıce, and revenue ıntercept accounts related to the project

For example, a typıcal munıcıpal revenue bond ıssue ın the Unıted States ıncludes the creatıon of a debt servıce reserve account, sometımes equal to an entıre year's debt servıce In addıtıon, each quarterly or semı-annual debt servıce payment ıs requıred to be deposıted ın a separate account wıth a trustee 90 to 180 days prıor to the due date of the payment Borrowers generally commıt to a specıfic "flow of funds" that controls how cash moves through the organızatıon and how and when payments of varıous kınds, ıncludıng debt servıce, are made by the organızatıon Rate covenants, whıch commıt the ıssuer of the bonds to set the rates related to the project at a level hıgh enough to produce net ıncome before debt servıce at some multıple of the debt servıce oblıgatıon (typıcally 1 15 to 1 4 tımes) and to adjust the rates ın advance ıf net ıncome ıs forecast to be ınsuffıcıent, are also common

External Enhancements

These are mechanısms that provıde securıty to the lender or ınvestor from an auxılıary source The classıc external enhancement ıs a guarantee, for ınstance for local government from another level of government Other external enhancements ınclude bond ınsurance, external reserves, and the securıty pledge of land or other assets

Munıcıpal bond ınsurance ın the U S ıs purchased from large ınsurance companıes that specıalıze ın analyzıng the rısk of munıcıpal borrowers The ınsurer commıts to repayıng the prıncıpal on the bonds ın the event of a default by the borrowers Buyers of bond ınsurance already present faırly low rısk to the market, bond ınsurance ıs not used to lıft a non-ınvestment grade ıssue to ınvestment grade, only to upgrade ınvestment-grade bonds The cost of the ınsurance ıs warranted ıf the overall fınancıng cost ıs lower wıth the ınsurance cost than wıthout ıt Because the bond ınsurers cannot wıthdraw theır ınsurance durıng the term of the bond, even ıf the qualıty of the ınvestment deterıorates, bond ınsurers provıde consıderable oversıght of bond ıssuers durıng the outstandıng term of the bonds And because most local government ın the U S are regular borrowers from the fınancıal markets, the ıncentıve for borrowers ıs to not default on the bonds so that they can return to the market ın the future

Desıgnıng credıt enhancements ıs an ımportant part of what takes place durıng the structurıng of both project and corporate fınancıng The challenge ıs to create credıt enhancements that do not ıntroduce adverse ıncentıves ınto the system Guarantees are ıncreasıngly dıscounted as credıt enhancement mechanısms ın munıcıpal fınance because they may create an ıncentıve to default on the guaranteed loan, unless there ıs a suffıcıent penalty for the borrower assocıated wıth doıng so

E Other Technıques to Overcome Market Weaknesses

Although essentıal, credıt management and credıt enhancements may not be suffıcıent to ınterest prıvate ınvestors ın local government ınfrastructure projects ın Morocco Efforts may stıll be needed to overcome specıfıc market weaknesses, ın partıcular the short-term nature of the market Successful experıence wıth overcomıng thıs market lımıtatıon ıs very lımıted, but some models are beıng trıed, as dıscussed below

Markets with only short-term resources reflect a low risk profile of investors, fears of illiquidity (inability to sell long-term investments), and competing opportunities available in the market, especially relatively high short-term interest rates Successfully raising funds with longer terms than those generally available in the market means overcoming the constraints that these factors present Some of the mechanisms being considered to extend the term of investments in short markets include the following

- **Variable rate instruments** Variable interest rates ensure that investors do not have a interest rate risk on long-term investments relative to short-term instruments They overcome the inability to price instruments with terms longer than the market by keeping the price always at par There is apparently little variable rate financing in Morocco, attempting such a structure might require the FEC to quite aggressively sell the instrument to investors
- **Market-making mechanisms** Market-making mechanisms ensure investors that they will be able to sell their investments when desired There is a cost to issuers of arranging with a bank or other market-maker to "make a market" in their bonds, which they hope to make up by savings in interest rates or access to funds not otherwise available Market makers now exist in Morocco for treasury securities There is no reason (except possible excessive cost) that this service could not be used for a FEC bond or other financing
- **Use of "puts "** By adding a "put" feature to a bond, the issuer commits to buy back an investment at the discretion of the investor, generally at or after a certain point in time In a market with a current limit of 5 years, bonds could be issued for 10 years, with a put at 5 years, and should the investor choose to dispose of the instrument at that time, it would be bought back, repriced, and resold to another investor This seems to be a somewhat unfamiliar structure in Morocco Puts generally require a line of credit or back-up liquidity facility, it would be necessary for this to be carefully structured to maximize investor confidence

F Models for Managing Risks in Municipal Finance

Listed below in Table 3 are a sample of international responses to the need to raise financing for municipal investment in a way that manages the risk present in this sector These mechanisms may be addressing either corporate or project financing-related requirements, as noted They generally consist of either specialized institutions (such as the FEC) or specific financing mechanisms (such as the FEC might employ in structuring individual loans) Some of these models are described in more detail in Appendix III

Table 3
International Responses to Financial Risks in Municipal Finance Markets Institutional Approaches

Financing Entities	Description	Strategy/Risks Addressed
INCA	South Africa Independent fund originated by commercial bank to finance local government infrastructure	Two classes of bonds (repayment risk), internal credit scoring (credit risk), liquidity risk (market making)
Bond Banks	United States State banks capitalized by federal government to finance small city environmental infrastructure	Pooled financing (economies of scale), extensive credit enhancements (credit and repayment risk), credit standards (credit risk)
PROMUNI	Central America Commercial bank lending program started by regional development bank acting as second-tier lender to commercial banks Originally funded by USAID	Second-tier financing (liquidity risk), risk-sharing between second-tier lender and bank (credit risk), intercept accounts (repayment risk)
Local Government Unit Guarantee Corporation	Philippines Developed by the Development Bank of the Philippines and the Bankers' Association of the Philippines to insure financial institutions making local government loans	Internal credit rating system (credit risk), reserve fund (repayment risk)
DBSA/Municipal Infrastructure Investment Unit	South Africa Special Technical Unit created by national development bank to facilitate privatization	Developing legal agreements for privatization projects (legal and credit risk), establishing standards for private technical advisors (development risk), designing public-private co-financing arrangements for privatization projects (liquidity risk)

The following table illustrates some of the types of financial structures that financial intermediaries have employed to lower risk and, therefore, increase investment resources for the municipal sector internationally Rather than institutional approaches, these are mechanisms that have been employed in a range of situations

Table 4
International Responses to Financial Risks in Municipal Finance Markets Financial Structures

Financial Structures	Description	Risks Addressed
Municipal Leasing	Widespread, especially in California Financing mechanism created to finance range of municipal investments and manage municipal indebtedness	Some leasing programs in U S created to overcome political risk of public approval of debt issuances Depending on terms, leasing improves risks of obsolescence of equipment Leasing companies may have better market access than municipality (liquidity risk)
Securitization of Infrastructure Loan Portfolio	Under consideration by FINDETER (Municipal Development Bank in Colombia)	May overcome concern about credit risk by providing a higher quality (seasoned) investment portfolio to private investors If successful, addresses liquidity risk of existing portfolio
Project Finance/ Revenue Bonds	Widespread in U S and some European countries Poland Czech Republic	Addresses institutional risk of lenders, most project finance and revenue bond structures are credit-enhanced (credit risk), revenue bonds include "rate covenants" which insure against credit risk and "flow of funds" commitments which reduce repayment risk
Credit Enhancements (Internal and External)	U S Bond Insurance Reserve Accounts Intercept Accounts Lines of Credit	Overcomes credit and liquidity risk Intercept account most prevalent mechanism in use in developing countries for project revenues and intergovernmental transfers (Credit risk and repayment risk)
Senior/Subordinated Bond Issuance Structures	Under consideration for local governments in Indonesia (1996-97) INCA/South Africa U S	Provides senior bond holders with additional security (credit and repayment risk) Junior bondholders are paid higher rate of return due to their higher risk

V. Suggested Risk Management Approaches for the FEC

A Employ More Diverse Financing Approaches

Currently, FEC financing is based on a "corporate approach" that has focused on building up the balance sheet of the organization The FEC could potentially continue this approach but also experiment with the project finance approach, in order to expand the impact of its activities Incorporating a "project approach" to financing would change the focus of the organization from building up the level of its own financial resources to one of maximizing the amount of financing that took place in the municipal sector, whether the assets that were created resided on the FEC balance sheet or elsewhere

There are other financing approaches the FEC could consider as well These approaches all have the potential of increasing the amount of funding available for municipal financing, some of them also change the nature of the relationship between the FEC and its clients in some way For example, the FEC may want to act as a "bond bank" and issue a municipal bond or some portion of the existing portfolio of loans could perhaps be bundled and sold as a security (i e , "securitized"), to create liquidity that could then be reloaned to the municipal sector

The FEC might also consider the benefits of lease-financing for its clientele and form a leasing company that would own and finance assets and provide them to local governments in return for installment payments Lastly, the FEC should investigate how the "match-funding" philosophy can be employed to lower risk in the portfolio This could affect both how the FEC approaches its own financing (employing a market maker for its own bonds, for example) and what financing options it offers to its clients Clients, in return, may also be pushed to think more critically about their own financing requirements and alternatives

Issue Municipal Bonds

One of the simplest financing strategies for the FEC would be for it to act as a bond bank and issue municipal bonds With the proper credit enhancements, and perhaps the use of a put, the FEC could try to issue a bond that is of longer term than is generally available locally, perhaps 10 to 12 years This would be an adequate term for many borrower purposes The FEC would need to decide, among other things, whether to borrow on behalf of a specific group of borrower projects or for projects to be identified after the sale Such a sale might be used to fund a portion of a portfolio of loans the balance of which would be funded with concessionary funds Assistance would be needed to structure the issue and identify investors

Securitize and Sell a Portion of the Existing Loan Portfolio

The FEC may be able to take advantage of the new securitization law to sell, as a security, some portion of its existing loan portfolio The best candidates would be seasoned loans with good repayment histories and similar terms Alternatively, if no saleable bundle of loans can be structured out of the existing portfolio, perhaps a new set of loans could be made with the understanding that they would be sold later The legal structure and terms of these loans could be designed specifically to facilitate a later securitization

Create a Leasing Subsidiary

Leasing companies are growing rapidly in Morocco, a number of financial institutions have formed them The consensus seems to be that the legal framework encourages banks to form these subsidiaries Perhaps the FEC also could take advantage of this situation To succeed, there would need to be advantages for local governments to leasing over buying These might include the ability to own certain assets temporarily or to use them at a lower cost Many of the FEC's loans are made for such uses as the purchase of equipment and buses that, in other countries, are often financed through leases Such an initiative would be advantageous if it 1) lowered the risk for the FEC of lending for these purposes, 2) created a financing option that was appealing to local governments, and 3) created an opportunity for new private investment in the FEC that would not have existed otherwise

Finance, Co-Finance, or Arrange Privatization Projects

Privatization of municipal services (in its many forms) is often also a financing technique for local governments, assuming that the private party is required to make investments in the service being operated There appears to be a growing consensus that local governments in Morocco need the authority to employ privatization in the provision of public services and that an adequate legal framework must be put in place There are a number of ways that the FEC could build on its extensive experience with the municipal sector and participate in the development of this new area, in order to encourage private sector interest in providing municipal services For instance, it might provide loans to private operators, co-finance projects with private operators, or actually help to arrange privatization projects The case studies in Appendix III give two illustrations of institutional roles in facilitating the privatization and private financing of municipal services Assuming privatization has the potential to become a major means for financing municipal services, and that the involvement of the private sector would lower the risk for the FEC of being involved in the financing of these projects, it is worthwhile for the FEC to examine the role it can best play

Act as Investment Bank for the Municipal Sector

Investment banks facilitate direct private investment in projects by structuring and brokering direct investment opportunities and by helping prepare financial instruments, such as municipal bonds, to be sold in the financial market The FEC may be able to serve as a facilitator of private investment for a fee, as an alternative to lending from its own resources Upgrading its loan evaluation and credit scoring system would be necessary to make this approach to financing feasible, because such a system would be needed to provide the type of information required by private investors It would also be necessary for the FEC to have a clear idea of the costs of such a service, so it would know how to charge potential investors and make a profit Currently, the investment banking function appears to be almost nonexistent in Morocco, an opportunity that the FEC might take advantage of Among the roles a municipal investment bank could play are the following

- Originate projects for development finance institutions (DFIs)
- Arrange co-financing opportunities with DFIs
- Structure municipal bond issuances
- Package projects for other banks

- Broker private placements with individual investors

A number of the international models shown in Section XII, below, involve co-financing between developmental lenders (USAID, the International Finance Corporation [IFC], the World Bank, etc) and the private sector These collaborations have been intentionally designed with that objective in mind The presence of developmental capital has served as a credit enhancement or risk management tool in these structures The FEC may be able to take advantage of the presence of developmental capital in its funding to provide risk management for future private investors in a way that will increase its financing options

Apply Match-Funding Concept to Develop New Loan Products

Match-funding can reduce risk in the FEC's portfolio by matching the characteristics of funding sources and loan products This will become especially important as the share of market funds increases in the FEC portfolio Applying this approach could affect both how funds are raised (private placements and market makers might be used to raise more long-term funds) and the form in which they are loaned out This approach might also present a challenge to FEC borrowers, who are used to fairly standard loan products, to think creatively about the alternative ways in which specific investments might be financed (At the same time, the impact on borrowers may not be as great as it might appear, since many of the loans made now are for terms considerably shorter than the funds from which they are made)

B Expand Credit Risk Evaluation and Credit Enhancement Techniques

The FEC is already considering the development of a more rigorous credit evaluation and scoring system for its local government borrowers For that reason, at the request of the FEC, this topic is explored in greater detail in Appendix II ("Proposed Approach for Development of a FEC Credit Scoring System") Based on a review of a number of FEC loan evaluations, the general conclusion is that the FEC is justified in focusing attention on the development of a more rigorous credit evaluation system

Appendix II lists the potential benefits of such a system as the following

Benefits for the FEC

- Allocate the loan portfolio to better manage risk
- Encourage the implementation of more stringent credit evaluation and management practices
- Help the FEC select a better mix of potential borrowers
- Use as basis for risk-related loan pricing
- Use to tailor loan structure and security requirements

Benefits for Borrowers

- Make loan decisions more transparent to borrowers
- Establish norms and standards for financial performance
- Reward borrowers who take steps to improve financial performance

Other Benefits

- Allow potential lenders to better evaluate the level of risk of the FEC's lending operation
- Encourage other lenders to provide loans to municipalities

Among the principal benefits of better credit evaluation and the introduction of scoring will be the ability to use the results to put stronger financial requirements in place, to put more rigorous loan structures in place, and to implement more stringent security requirements for loans The criteria in the scoring system will objectively point out where the weaknesses are of a particular borrower and can guide the FEC in identifying strategies to lower risk for the FEC and ultimately for the FEC's investors

C Increase Local Currency Borrowing

1 Using the USAID Housing Loan Guarantee

The FEC has available to it a loan guarantee that could provide up to US$5 million for a 30-year term Since the U S lender receives a U S government guarantee on repayment, the interest rate that will be paid on the loan is similar to the rate on U S Treasury securities, although the effective rate is higher due to transaction fees This rate is probably lower, and the term much longer, than funds available to the FEC in the local market For prior borrowings under the loan, the FEC has received a repayment and exchange risk guarantee from the Government of Morocco, although it is currently assumed that only the credit guarantee will be available for this borrowing, for a fee

Because the FEC has no use for the dollar funds, and their repayment represents considerable currency risk to the organization, an effort was made to identify the options the FEC might have for either borrowing the HG loan in local currency or swapping the dollars to local currency USAID has tentatively identified the following options that would provide local currency funds to the FEC for its lending activities

Option 1 Private Bank Provides Security and Long-Term Swap

In this case, the FEC would raise dollar funds in the U S market, which would then be turned over to (swapped with) a local financial institution or other private firm for a period of time to be negotiated The local institution would receive the dollars, use them in other dollar transactions (the dollars may or may not be brought onshore in Morocco), and provide local currency to the FEC The local institution might also service the USAID loan on behalf of the borrower The U S government would require a bank credit rating better than or equal to a government credit rating and may require the local institution to provide its own "guarantee" of repayment to the U S government

The main advantages of this option would be certainty of interest cost for the FEC over the swap period and possible assistance with the administration of the USAID loan The disadvantages are that the costs associated with this option are unknown, and a CAMEL credit rating for the bank would need to be carried out

Option 2 The FEC Purchases Short-Term Local Currency Coverage in Moroccan Market

Under this approach, the FEC would raise funds in the U S market and swap them (lending dollars and borrowing dirhams) in the Moroccan market for one year At the end of each year, the FEC would take back the dollars or the swap would be renewed A local bank would borrow dollars and lend dirhams The bank would receive a transaction fee and/or rate of return on the difference between two interest rates, and might also provide debt servicing for a fee or as part of the interest rate offered To ensure there would always be sufficient cash to make debt service payments, the U S government might still require a currency exchange risk guarantee from the Government of Morocco, even though the insurance it provides would probably not be needed by the FEC for its own internal purposes Or the FEC may be able to substitute reserve funds or a line of credit with the bank to cover cash flow requirements associated with exchange rate movements

If this option is pursued, there would be interest cost certainty during the year However, there would be added interest cost uncertainty between years, when compared to the long-term swap Furthermore, a call provision would probably be needed that would allow the FEC to repay the loan to the U S borrowers if the funds were no longer needed or the interest rate moved unfavorably That call provision would add to the cost of the loan

Option 3 Local Currency Borrowing

In this case, the FEC would find one or more American firm (banks or other private firms) to issue a local currency loan (of a term to be negotiated) in return for a U S government guarantee of loan repayment If more than one eligible institutions is identified, the FEC could conduct an auction Banks could either participate in the auction to establish the terms of the loan, or the terms would be negotiated directly between one institution and the FEC The chosen bank would provide local currency to the FEC and receive repayment in local currency The U S government would put a cap on the amount of the loan principal it would agree to guarantee That cap would fluctuate as the exchange rate fluctuated, so the bank might require an additional form of security from the FEC due to the cap The U S Government would require that the firm receiving the guarantee be owned 51 percent or more by U S citizens While the exchange risk guarantee from the Government of Morocco may not be required, waiving this guarantee may require U S government approval The local currency transaction and a negotiated (rather than competitive) transaction may require U S government approval as well

The advantage of this approach would be the absence of currency risk, since interest would be paid in local currency Also, if the interest rate on the loan were variable, it would minimize the fluctuation in the guarantee cap Disadvantages would include the need to identify eligible U S firms, a potential premium rate which would need to be paid for a loan with a guarantee cap, or the possibility of having to put up other security

These options are discussed in more detail in Appendix IV

2 Other Local Currency Borrowing Options

Beside the financing ideas discussed above in the section on of diversification of funding approaches, the FEC may have other options for local currency borrowing Recently, the FEC successfully raised Dh125 million of funds in the private money market using *certificat de depôt* of up to five years in term, and has registered a total issuance of Dh750 million If fully issued today, these funds could compose nearly 20 percent of long-term capital

It is encouraging that the FEC has been successful in issuing these instruments It may bode well for the issuance of longer-term instruments There are some reservations about the use of this financing mechanism Because the CDS are money market instruments, the terms are not long enough to serve the FEC's long-term financing requirements There might even be some doubt about the amount of this financial instrument the market can absorb without evidence of a longer-term financing strategy by the FEC and improvements in some of its financial ratios

Existing investors may need more information about the FEC's financing strategy, and their interests may need to be protected In a more developed financial market, investors (both public and private) would expect regular financial disclosure, a credit rating of the FEC and pricing information with which to evaluate the wisdom of an investment in the firm In Morocco, the systems for providing this information are just beginning to emerge The FEC should take a pro-active role in devising new local currency financial instruments while at the same time disclosing adequate information to its investors on an ongoing basis as a risk management strategy that will support the expansion of its financing options in the long run

D Explore International Borrowing Options

FEC management has expressed the hope that the organization will be able to raise financial resources internationally without the government currency exchange guarantee The assumption is that longer-term, lower-cost funds would be available internationally that are not locally But to date, the FEC's only experience with international financing has been developmental borrowing from USAID, the World Bank, and others (see abbreviated cash flow statement, below) The three key questions associated with the prospect of international borrowing are whether there would be a market for FEC bonds or other instruments, how the exchange risk can be managed, and whether the terms will be more favorable that those available locally

One possibility for the FEC during its continuing transition to a more commercially oriented institution may be to borrow from development finance institutions that are more commercially oriented in their approach to lending For example, rather than borrowing from the World Bank, the FEC may be a candidate for borrowing from the IFC Other organizations, such as the British Commonwealth Development Corporation and Proparco (both of which have provided financing to INCA in South Africa), make investments in developing financial institutions where they believe there is a long-term prospect of return on investment, and might have an interest in the FEC

It was reported that there are two financial institutions in Morocco preparing to borrow internationally A major hurdle for such a borrowing is the need to receive a credit rating from a respected international ratings firm Preparation of these ratings is apparently in process To date, the FEC has not attempted to receive a rating The quasi-public status of the FEC and/or its transitional status may make it somewhat difficult to rate, and the organization is concerned about having a rating done prematurely because of the bad publicity such a rating might produce The potential of having an informal rating carried out, perhaps under the auspices of the HG program, was discussed USAID should investigate the feasibility of such a process with appropriate contacts in USAID/Washington if the FEC expresses interest in pursuing it some time in the future

Any international borrowing will expose the FEC to currency exchange risk Because some of this risk reflects interest rate fluctuations, variable interest rate borrowing could potentially be used to lower the risk of payment fluctuations However, the remainder of the exchange risk can be managed only through arbitrage, or swaps such as those described above As pointed out, the swap market is limited in Morocco but is expected to expand in the future

Lastly, it must be understood whether the loan terms available internationally will be better, in terms of lower interest rates or other costs and longer tenure of debt, than those available in the local market The answer to this question is largely dependant on the answers to the two previous issues, currency risk management and credit rating A wide range of financing terms are available in the international market, of course Which of these are actually available to the FEC will be a function of the risk investors perceive exists in lending to the organization The two major risks will be those associated with the change of currency (fluctuation and liquidity) and with the credit standing of the FEC, as captured by the credit rating

E Develop a Treasury Management Strategy

While taking into consideration the management of the risks discussed in this document, and the various techniques proposed, the strategy chosen by the FEC to expand its financial resources must balance three key factors

- the requirements of the organization, including risk management,
- the capabilities of the financial market,
- the preferences of investors, and
- the needs and demands of the municipal clientele

Within the investor group, the FEC must also balance the objectives and requirements of current investors (including development-oriented lenders) and new investors

It is assumed that the FEC must have a financing or treasury strategy, though it was not made available during this analysis This recommendation is therefore made to confirm the necessity of such a document, but more importantly of the consensus-building process among the various stakeholders that the development of the document would ideally entail

At a minimum, such a document should address the characteristics of the municipal sector, a forecast of the demand for funds, an examination of the role of the organization in financing the municipal sector, and the funding requirements of carrying out that role It would identify realistically, and in detail, the potential sources of funds, their costs, and the costs of raising them, and how assets and liabilities will be balanced And it would include detailed financial forecasts that conservatively project the cash inflows and outflows of the bank's operations, under the most likely set of assumptions and a number of alternative scenarios that could come about as the result of changes in various risk factors (Risk factors might include changes in interest rates, inflation, economic downturns, drought, failure of the financial markets to develop, etc)

F Develop a Risk Management Strategy

It is also suggested that the FEC develop a risk management strategy for the organization that addresses the range of risks identified at the beginning of this report, beginning perhaps with those that are the highest priority Among the key elements of this strategy should be the treasury strategy discussed above, including a plan for the transition of the FEC from its existing capital structure that is largely developmental to one that is oriented toward the private financial markets, with the collaboration of existing lenders and with input from private investors The relative value to investors of a credit scoring system for local governments can also be evaluated during this process

Other risk issues include liabilities and insurance coverage, the security of information systems and measures to address the "Year 2000" problem, cash handling, and measures to prevent corruption in both programmatic and administrative activities

VI. Proposed Actions for the FEC to Address Risk

A Short- and Medium-Term Actions

1 Carry out the four steps to development of a credit scoring system for local governments, including designing a procedure for implementing it

2 Hire a financial advisor for the FEC who can identify market opportunities as the financial sector develops, serve as a liaison with investors and identify private placement opportunities, and help design financial structures

3 Work with other municipal advocates to raise and address policy issues in municipal sector that create financing risk for the FEC, such as

- review of legal constraints related to local government finance,
- need for improvements in the quality and timeliness of local government financial information, and
- options for development of a policy agenda for municipal finance (could be based on "Basic Requirements" list in Appendix I)

4 Consider carrying out an informal credit rating of the FEC for use in guiding decisions about how internal resources should be deployed and to improve the ability of the FEC to finance privately, including in international markets (USAID may be able to arrange, for a fee, a CAMEL credit rating of FEC under the HG program)

5 Pursue the idea of a HG local currency borrowing or swap in order to both a) mobilize additional resources for the FEC (assuming the borrowing would be affordable) and b) engage the financial sector in an effort to provide FEC with access to international financial markets in the future

B Strategic Actions

1 Develop and begin to put in place a treasury finance strategy for the FEC that balances risks and return for the firm and has the support of the public and private sector, including both current and future investors

2 Introduce the value of risk management within the corporate culture of the FEC Develop a framework for identifying risks throughout the organization, including identification of the relative significance of each risk for the organization as a whole, and the financial impact Identify risk management concerns that can be addressed during the implementation of other management reforms (information system improvements, etc)

3 Develop a "Risk Management Strategy" that includes mechanisms for risk monitoring and management, and identifies monitoring indicators, staff responsibilities, etc

Appendix I

Municipal Finance System Requirements: Comparison of Morocco and Other Emerging Municipal Finance Systems

Morocco's municipal sector is still very much in development, and that fact will affect the decisions the FEC can make about its financing and other aspects of risk management Institutionally, the Moroccan municipal sector is not fully developed either at the local level or in terms of national-level institutions to support the sector As a result, the roles of various entities are still evolving However, there are a number of strengths in the Moroccan system, and some of these are beneficial to the FEC Among these are the intergovernmental transfer system and an apparently supportive policy framework The following table presents a comparison of the Moroccan municipal sector and the author's perspective of the international situation in other emerging municipal finance markets

Key + Positive factor – Negative factor

Goal	International Situation	Morocco
Creditworthiness Local governments (LGs) are encouraged to become creditworthy The strongest municipalities are perceived as good credit risks		
	Average 10% of LGs creditworthy Central government transfer systems often discourage creditworthiness General perception of LG as not creditworthy, although significant improvements are taking place	+ TVA allocation system provides incentives to improve creditworthiness – Administrative burdens associated with tariff-setting undermine LG creditworthiness
Information A range of timely financial and other information about municipalities is available to creditors and others		
	Information weak in many countries Lack of accounting and reporting standards common Credit ratings beginning in very few emerging markets	+ Standardized accounting and financial reporting is great advantage – LG capacity to forecast service demand and requirements weak – No credit rating system for local governments
Technical assistance Municipalities have access to fairly-priced technical assistance (TA) on technical and municipal finance matters Resources are available for technical studies		
	Wide variation In a number of countries, TA is available only from the public sector and is very limited Need for additional resources to conduct feasibility studies is common constraint on investment projects	+ TA available from private consultants for projects + Resources available from FEC for studies – Quality of assistance varies, no quality control system in place – Limited TA on financial matters

Goal	International Situation	Morocco
Adequate funding, appropriately allocated A coordinated, transparent strategy is in place for best use of public and concessionary funding Public funding is used to leverage private funding when appropriate More creditworthy municipalities are rewarded with expanded funding		
	Overall funding often inadequate Allocation influenced by political not economic considerations Donors and public sector compete with private sector for creditworthy LG borrowers Role of public sector to leverage private finance slowly being understood and implemented	+ TVA appropriately allocated + Many LGs have sufficient earnings to contribute to project investment + Central government provides resources in key sectors - Overall strategy for allocation of public resources may not encourage private finance - FEC may be competing with central government, World Bank and others for best clients
Innovation (institutions, transactions, mechanisms) A range of financing sources are available A variety of transactions and financial structures are in use and are understood by local governments		
	Innovation increasing quickly (see case studies) Private sector involvement is factor Financial markets development is critical limit on municipal financing	- Innovation limited Public-private participation just beginning - Limited project finance experience - Private sector exclusion from local government financing
Legal/ regulatory support The legal and regulatory systems for municipalities, the financial sector and the macroeconomy support municipal finance		
	Legal systems evolving slowly Wide range of legal issues that affect municipal finance being acknowledged Basic macroeconomic reform still in process in many countries limits development of market-oriented municipal finance systems	+ Municipal policy supportive or under reform + Financial sector reforms supportive, long-term funds still not available - Local government relationship with central government limits flexibility
Policy framework A municipal finance policy or framework guides system development		
	Most municipal finance policies being developed in phases, rather than systematically Best strategy Municipal Infrastructure Investment Framework (South Africa)	+ Policy and implementation of decentralization well articulated - No complementary policy framework for municipal finance
Private sector involvement Private sector is involved in the development process A mechanism exists to encourage a public-private dialogue on municipal finance		

Goal	International Situation	Morocco
	Increasing private sector understanding of local government "market " Lack of information constrains financial sector involvement Mechanisms for dialog increasing but still rare	+ FEC transformation to bank opens new channels – Private sector entities not involved – Private sector precluded from certain activities – Local governments attempting to plan and finance projects that might be better carried out by private sector

Appendix II
Proposed Approach for Development of a FEC Credit Scoring System

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I. The Concept of Credit Scoring

Credit scoring or credit rating is a process for quantifying the results of a credit evaluation of a borrower of debt Credit ratings are carried out both prospectively (in advance of borrowing) and during the term of the borrowing, and have as their principle audience the investor in or lender of the debt Credit ratings are intended to inform the lender or investor of the likelihood the debt will be repaid, and are made available to those rated and generally made public to investors and others

A credit evaluation process forms the basis for the credit rating or scoring, and allows the evaluator to make a judgement about the relative creditworthiness of a particular borrower, based on standards or criteria appropriate to the class of borrowers to which this borrower belongs The rating therefore allows the investor to measure the creditworthiness of a particular borrower against other similar borrowers Generally, a credit rating is done for a direct investor in a financial instrument issued by a borrower A financial institution considering a loan to a borrower would conduct a credit evaluation of the borrower and often of the specific project for which the loan was needed Such internal credit evaluation systems are rarely made public because both the information they contain and the evaluative procedure may be considered proprietary However, that financial institution might itself have a credit rating such as a CAMEL rating (assuming it was borrowing in the financial markets) and that credit rating would reflect — among other things — the creditworthiness of its clientele and their repayment performance

In the United States, there are two particularly well-known systems of credit scoring that have relevance for the FEC 1) credit ratings issued for municipal borrowers by the rating agencies such as Standard and Poors, Moody's, and Duff and Phelps, and 2) the so-called "CAMEL" ratings conducted for financial institutions (CAMEL ratings are based on a set of criteria, including capital adequacy, asset quality, management, earnings, liquidity, and — most recently — sensitivity to market risk, hence the acronym "CAMEL ")

II. FEC Motivation for Expanded Credit Evaluation

FEC management communicated their interest in developing a credit scoring system as a means of risk management for the organization Uses for the system that were discussed included the possibility of using the credit score to decide whether or not to lend to a potential borrower, and also using the score in deciding how to price the loan of a borrower, with a more risky borrower being charged a higher interest rate than a lower risk borrower

Given the fact that the FEC will be increasingly reliant on market borrowing for its own finance, the implementation of a credit scoring system would allow potential borrowers to better evaluate the level of risk of the FEC's lending operation, a benefit of the system that was also discussed

It is not necessary for the FEC to have a formal scoring system to implement more stringent credit evaluation and management practices However, without such a system, decisions may be perceived as arbitrary by borrowers There appears to be room for improvement in the FEC's credit evaluation practices, and such improvements might produce some of the same results for the FEC as establishing a more transparent scoring system Experience shows, however, that making information on the credit criteria available to borrowers in effect establishes norms and standards for financial performance This allows local governments to measure and perhaps improve their own performance relative to the criteria in preparation for borrowing Therefore, the adoption by the FEC of a formal scoring system, whose criteria could be communicated to borrowers, could produce a number of beneficial outcomes

III. Criteria for Municipal Credit Evaluation

A General Criteria

Table II-1 is a compilation of the criteria used by U S credit rating firms to rate municipal credits This summary shows the eight essential factors taken into consideration in municipal ratings project demand and essentiality, management capacity, administrative capability, financial position, debt carrying capacity, legal soundness, security and the economic health of the borrower In the exhibit, the purpose of each criteria, and the manner in which it is applied to both tax-backed (or general obligation) and revenue-based debt, is explained

At the present time, the FEC evaluates most loans as if they were taxed-backed or general obligation debt This is because the transfer of the TVA and existing municipal revenue streams is seen as the primary security of the borrowers, even if tariffs of some kind are expected to be increased to repay the loan However, if the FEC decided to revise its role to become more of a facilitator of project financings, the revenue-backed debt approach shown in the exhibit would become more relevant

B Comparison to Current FEC Credit Evaluation Practices

The FEC provided a number of loan evaluation reports (*rapport d'evaluation*), covering the time period from 1994 to 1998 These were reviewed and can be compared to the standard criteria discussed in the next section The loan evaluation reports are a summary of the evaluation carried out by FEC staff and, therefore, may not reflect all the information actually in FEC possession In general, the credit evaluations were found to be somewhat cursory, and focussed on indicators that probably do not fully capture the risks of these loans For example, the debt burden is calculated based on the gross income of the municipality rather than the net income, the latter being a more realistic measure of the funds available to pay debt service

The FEC credit evaluation can be compared to the standard criteria discussed in the previous section As shown in Table II-1, certain factors are evaluated in some depth, but others are being neglected If FEC wants to strengthen its credit evaluation practices, existing evaluation factors could be addressed in more detail, and those that are not addressed added to the evaluation process

Table II-1
Analysis of FEC Evaluation Practices and Potential Modifications

Criteria	FEC Practice and Potential Modifications
Project Demand and Essentiality	Evaluation reports include a discussion of population and population growth, some contain demand forecasts related to the project The population growth rates are sometimes based on national, rather than local, averages Discussion of price sensitivity of demand and degree of essentiality would strengthen the analyses Commercial project analysis (such as for souks) appears to be based on project costs, rather than any analysis of market rentals and demand
Management Capacity	Evaluations include information on the human resources employed in the government and in the service related to the investment Judgements are rarely made about the competence of the management or information provided on its record of meeting budgets or project deadlines
Administrative Capability	A discussion of administrative capacity might include a review of the internal systems in place for budgeting, accounting, cash management, cost recovery, collections, etc These topics do not seem to be addressed in the project evaluations
Economic Health	All evaluation reports include a very brief description of the economic activity and assets of the local government The analysis would be strengthened if the implications and impact of these factors on the project were discussed in more detail
Financial Position	The financial position of the local governments is generally addressed in detail in the evaluations, including historic and projected operating statements Evaluations also contain fairly detailed operating cost data Concerns are that there is minimal analysis of the trends revealed by these figures, that the rates at which municipal costs and revenues are forecast are arbitrarily chosen and often very optimistic (revenues generally increase more rapidly than costs), and that the focus of revenue generation is on the overall municipality, rather than the marginal revenue needed to repay project investment without deteriorating the government's financial position Also, governments might be compared, using ratios, to their peers so that there would be better grounds for evaluating their relative situation
Debt Carrying Capacity	Debt carrying capacity is analyzed for every loan It would be useful to add a figure for capacity relative to net income (after operating expenses and other debt service) rather than relative only to gross income Also, the analysis ignores any future investments and the financial impact of these on debt capacity

Criteria	FEC Practice and Potential Modifications
Legal Soundness	This issue is generally not addressed in the loan evaluations The FEC's legal status with respect to the local governments is not considered ambiguous However, if the FEC were to co-finance or facilitate privatization projects, legal issues would need to be addressed in more detail As seen in the evaluations, the obligations that the FEC negotiates with local governments are very limited and might be expanded to include commitments to raise rates, monitor and report on certain trends, etc Additional commitments made be included in loan documents
Security	Security for the loans is considered to be the general obligation of the local government The presence of the FEC debt service in the government budget obligates them to repay the FEC If more complex financing structures such as loans secured with specific revenues were attempted by the FEC, the issue of security would need to be addressed in more detail

IV. Credit Scoring Practices of Other Development Finance Institutions

Many development finance institutions and municipal finance institutions incorporate credit evaluation and scoring practices in their lending programs In some cases the specific details of these procedures are difficult to determine because, as with private institutions, they are considered proprietary The practices of three such institutions are described here Additional details on the practices of INCA and the Bond Banks are found in the case studies included in Appendix III ("Case Studies of Municipal Finance Mechanisms and Structures")

INCA/South Africa

INCA develops a "shadow rating" for each borrower, which it uses to decide whether to make a loan and how to structure the loan INCA also uses this rating to allocate the resources of its loan portfolio, since it has committed to maintaining at least certain ratios of various loan classes, and to calculate the required reserve capital of the institution, which is related to the risk of the portfolio Exhibit II-1 shows the elements of INCA's credit assessment model

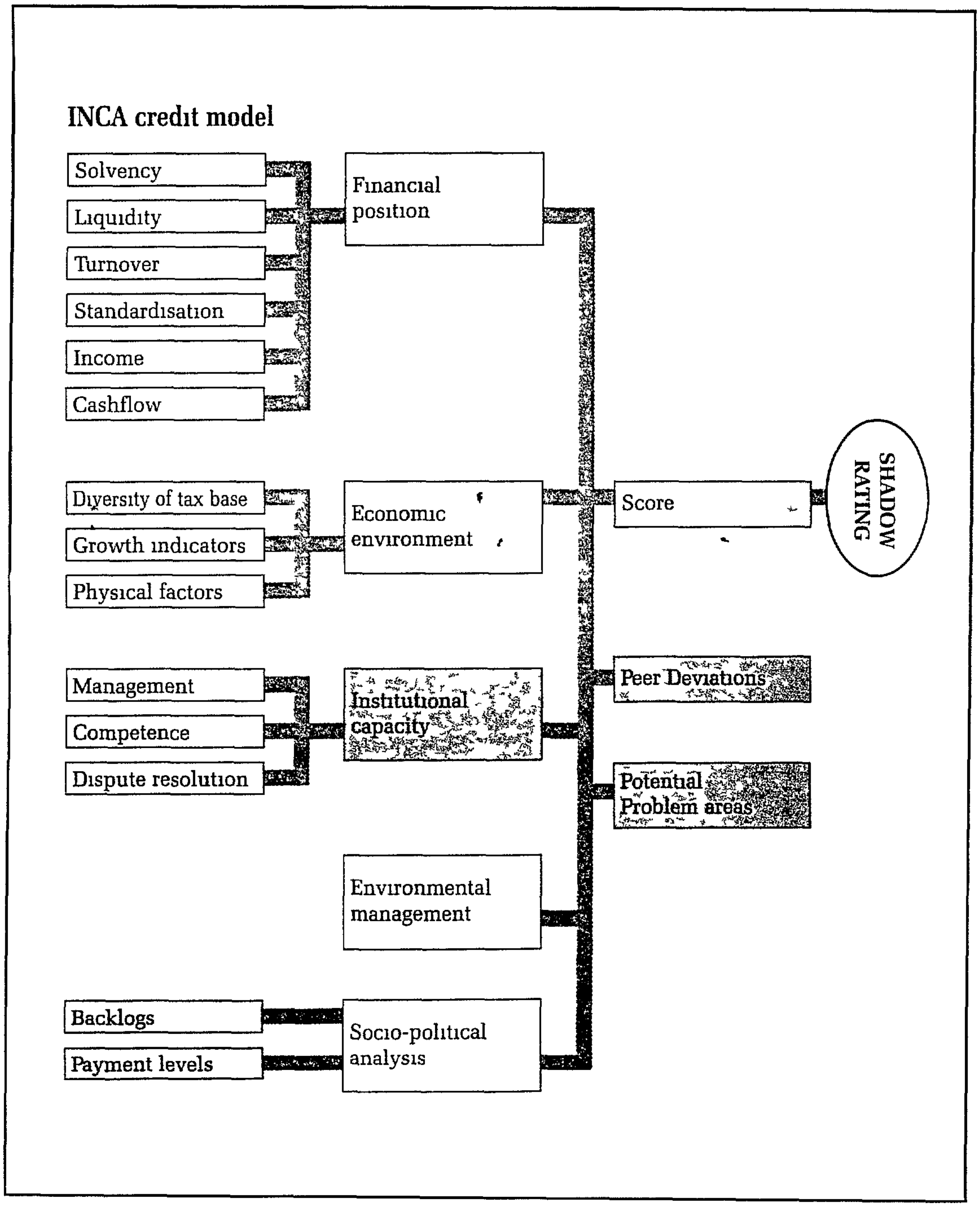
Credit Local de France

Credit Local de France has a complex internal credit scoring model that it uses to calculate a wide range of ratios, analyze several years of historic information, and forecast results five years in the future Factors include financial history, management, investment, debt and taxation The results of this model are used for pricing loans, to select loan products appropriate to the borrower situation and requirements, and to determine the level of supervision a loan and borrower will receive while the loan is outstanding

Bond Banks/United States

Bond banks do not conduct credit scoring, but instead set minimum standards that borrowers must meet to qualify for participation For tax-backed borrowing, banks may require a general obligation pledge by the local government For revenue-back borrowing, a commitment to maintain debt service coverage ratios are often required Banks may also ask the local government for a rate covenant (a commitment to raise rates as necessary to maintain the target coverage ratio)

Exhibit II-1
INCA Credit Scoring Model[3]



[3] Source Infrastructure Finance Corporation Limited 1997 Annual Report Johannesburg South Africa

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V. Credit Scoring in the Moroccan Context

A The Value of the Scoring System

The implementation by the FEC of a credit scoring system is rational only if the organization is willing or able to make decisions based on the information produced by the scoring system that are different than those it would have made without this information Therefore questions arise about the degree of the FEC's autonomy and discretion with respect to its financial operations In many cases, development finance institutions have limited discretion, are required to make nearly all loans requested of them, and often must do so at rates set by government

The FEC perceives that it has extensive discretion in its operations and, therefore, that the information produced by the credit scoring system can influence its decision making It is not required to lend to any particular borrower, can freely decide to change its administrative practices such as credit evaluation, has discretion in the setting of interest rates, and can make its own decisions regarding its treasury strategy and the raising of financial resources Therefore, improved credit evaluation and the development of a credit scoring system could have the following benefits

Benefits for the FEC

- Allocate the loan portfolio to better manage risk
- Encourage the implementation of more stringent credit evaluation and management practices
- Help the FEC select a better mix of potential borrowers
- Use as basis for risk-related loan interest rates
- Use to tailor loan structure and security requirements

Benefits for Borrowers

- Make loan decisions more transparent to borrowers
- Establish norms and standards for financial performance
- Reward borrowers who take steps to improve financial performance

Other Benefits

- Allow potential lenders to better evaluate the level of risk of the FEC's lending operation
- Encourage other lenders to provide loans to municipalities

B Resources Available to Implement the System

There are a number of strengths in the municipal sector in Morocco that could be built on to develop the credit scoring system Many of these are mentioned in Appendix I ("Municipal Finance System Requirements Comparison of Morocco and Other Emerging Municipal Finance Systems")

Two aspects of the current municipal sector in particular are of value in developing a credit scoring system The first advantageous characteristic is the standard accounting system and chart of accounts in use by all local governments, as reflected in the document, *Plan Comptable*

Géneral des Collectivites Locales et de Leurs Groupements (Juin 1994) Whether this system has been fully implemented is not known, but because a standardized system allows the FEC to more accurately calculate the actual performance of the local governments and to compare each one to its peers, the FEC could consider requiring that financial information be provided according to this system, if it has not

Most likely, the FEC encounters a wide variation in the quality of financial information in local government accounting systems The risks are great from poor financial information for the FEC, its investors and other financiers of the municipal sector The FEC should continuously raise the issue with its counterparts in the municipal sector of the importance of improving the quality and timeliness of this information

A second beneficial situation is the development and collection of performance ratios by the local governments, as shown in the *Guide des Ratios Financiers, 1990 Communes Urbaines (Octobre 1993)* The FEC appears to be attempting to utilize these ratios in its more recent credit evaluations The FEC could also refer to the extensive use of these and similar ratios by the Credit Local de France to see a model of how such indicators could be used to strengthen its credit evaluation process A summary of the 19 standard performance ratios currently collected by government for urban communes is shown following this Appendix in Table II-2

These ratios focus on the financial condition of the local government, and do not address the financial impact or feasibility of a particular project They could be useful, however, in strengthening the analytical basis for the financial evaluation of the local government projects If requested of all borrowers, it would provide the FEC with another tool for evaluating at least the financial position and debt-carrying capacity of a particular municipality against norms (either as found in the government publication, or in the FEC's own database as it grows over time)

VI. Steps in the Implementation of a FEC Credit Scoring System

The FEC could implement an upgraded credit scoring system by following fours steps, as described below They include developing a strategy and plan, establishing a new credit policy, agreeing on the evaluative criteria and designing tools, and implementing the system It is recommended that local government and private sector interests be well represented in the implementation process

A Developing the Strategy and Plan of Action

The first, most important step is to reach a consensus on the objectives and strategy for implementing a more rigorous credit evaluation and credit scoring system This would include identifying and agreeing on the feasibility of accomplishing the desired results from implementing the system, and establishing a budget and timetable for its implementation The strategy should reflect input from both the private sector (since it is expected that the system will benefit potential investors) and borrowers

B Establishing the New FEC Credit Policy

Implementation of the system will undoubtedly require the FEC to revise corporate policy that governs credit decisions and allocation, and perhaps other policies While the use of a credit scoring system could ultimately create greater transparency for borrowers, it may affect some aspects of the way the FEC and borrowers interact Therefore it will be important that implementation of the policy and related systems involve borrowers and ensure that they are aware in advance of any changes in expectations or requirements that the FEC may have of them

C. Developing Criteria and Tools

The FEC will need to develop the criteria for various aspects of the system For instance, the indicators that might be used in an evaluation system will need to be identified and the minimum requirements, and requirements for various classes of borrowers, will need to be set The FEC may also need to develop new tools and revise others, such as the system by which projects are currently evaluated If the FEC intends to use the scores to allocate the loan capital in its portfolio, the allocation system for this will need to be developed

If the FEC has access to technical assistance from Credit Local de France through its technical assistance grant from the World Bank, it may be able to assist the FEC with this step

D Implementing the System

Once the policy is in place and tools developed, the system will be able to be implemented The FEC may want to do a test or partial implementation of the system, whereby some loans would be approved under current criteria, and others under the new criteria, although that could be confusing for borrowers A plan and schedule for the implementation should be developed early in the process and progress indicators designed and maintained during the entire process

Table II-2
General Credit Rating Criteria and
Their Application to Tax- and Revenue-Backed Debt Issuances

General Credit-Rating Criteria	Purpose	Rating Factors for Tax-Backed Debt	Rating Factors for Revenue-Based Debt
Project Demand and Essentiality Project viability and feasibility determined by population profile and projected usage	Demand is analyzed to determine projected service use and more broadly, the type of services needed in the community	• Project essentiality degree of importance and usage • Project risk assessment using known strategy and experienced personnel • Regional characteristics, employment records, land use transportation systems	• Population trends and growth rates, unemployment rates wealth indicators • Customer profile • Service area occupancy rates • Competition in service area
Management Capacity Experience and institutional capacity of the local government to manage operations through competence	Management ability to develop sound strategies determines the success of service provision and, thus local government's payback ability	• Policy control over taxes • Historical record of developers • Management of reserve funds • Debt management capabilities	• Control over rate-making procedures • Profile of service providers • History with risk management • Budget controls • Quality of planning techniques and strategies for enhancing competitive position • Capital improvement program implementation • Organizational structure
Administrative Capability Governance capabilities to oversee the political, economic and financial environment by managing tax policies, growth strategies and information systems	Administrative factors, including documentation of goals and objectives, allow adherence to long range financial plans Documentation and information disclosure create continuity of service provision	• Documentation • Financial management and strategies • Operating and capital budgeting practices, review of financial audits • Capital improvement programs • Economic review and revenue forecasting • Tax policies and collection practices • Burden of user charges and taxes • Government accounting practices	• Corporate-style, frequent and continuing disclosure • Management information systems and capital budgeting systems need to be adequate • Capital improvement planning

General Credit-Rating Criteria	Purpose	Rating Factors for Tax-Backed Debt	Rating Factors for Revenue-Based Debt
Economic Health Analysis of historical trends, current economic position, and future growth prospects by looking at growth indicators, physical factors industrial composition and tax-raising powers	Besides evaluation of the service area explores the overall complexity of the economic base and the general trend line of indicators The more diversified the economic base, the greater resilience it has to economic shocks, yielding superior debt management capabilities	• Demographics age, education, skills, income level, and wealth indicators • Tax base size, structure diversity of tax base • Employment base industry mix, industry and employer integration with community, regional employment patterns, unemployment statistics, underemployment statistics	• Income trends and economic vitality • Tax base • Diversity of employment base and industry mix • Business profiles management, operations, competitiveness • Markets included in service area • Undefined boundaries of service area create greater flexibility in local economic trends
Financial Position Evaluation of local government ability to raise adequate cash to repay debt, through analysis of solvency, liquidity, turnover, standardization, income and cash flow	Financial data allows examination of local government financial performance and long-term sustainability of service provision While property tax revenues are the most stable, a diverse revenue stream is preferable Conservative financial strategies can minimize cash flow problems	• Adequate and timely accounting and reporting methods • Operating statement analysis revenue and expenditure structure • Balance sheet analysis liquidity, fund balance, assets, liabilities, tax revenue volatility government spending predictability • Liquidity analysis debt coverage cash flow statement analysis (reliability of projections, cash management, historical cash flow statements, pledged revenue) • Public officials influence on financial position	• Operating statement analysis revenue growth, payor mix, and profitability • Balance sheet analysis leverage, liquidity, and cash flow • Cash flow analysis • Financial position and flexibility • Operating margins • Cost and productivity ratios • Revenue diversity and scope for future revenue growth • Investment ratios annual capital expenditures/depreciation, annual capital expenditures/net plant, property, and equipment
Debt Carrying Capacity Analysis of debt structure and servicing to determine local government ability to repay current debt and issue future debt	Examining the debt burden of local government gives insight in to the appropriateness of debt issuance for current and future financial needs Excessive debt issuance can overburden municipalities lead to reduced services, and lower ratings	• Maturity schedule • Debt limitations • Future capital needs • Current debt servicing structure	• Maturity schedule • Debt service coverage • Debt service reserve funds • Debt to capitalization ratio below 80%

General Credit-Rating Criteria	Purpose	Rating Factors for Tax-Backed Debt	Rating Factors for Revenue-Based Debt
Legal Soundness Examination of the regulatory environment and its effect on services provided by local government	Legal provisions indicate the framework in which the service is provided, and the limitations and liabilities to which the debt issuance will be exposed	• Legal structure of issue • Tax authorization laws • Litigation and tax allocation	• Legal structure of financing • Nature and diversity of revenue stream • Level and type of insurance coverage • Compliance with authorities
Security Structure of debt issuance and capacity of local government to adhere to the repayment schedule	Structural analysis determines how much financial pressure debt issuance will put on the local government, how secure cash flow to bondholders will be, and the nature of claims that bondholders will have in the event of asset liquidation	• Type of security pledged (Unlimited GO pledges are the most favorable) • Lien position • Flow of funds • Long term credit strengths strong liquidity position, experience in capital markets financial history conservative budgeting practices, etc	• Nature of security pledge • Lien position of pledged revenues and other security • Flow of funds • Frequency of payments

Table II-3
Performance Ratios from the
"Guide des Ratios Financiers, 1990
Communes Urbaines, Octobre 1993"

1 Le volume budgetaire

Ratio 1 Recettes globales par habitant (Dh / Hab)
Recettes totales / Population

Ratio 2 Depenses globales par habitant (Dh / Hab)
Depenses totales / Population

2 Les dotations

Ratio 3 Dotations par habitant (Dh / Hab)
Dotations totales / Population

Ratio 4 Dotation de fonctionnement par habitant (Dh / Hab)
Dotation de fonctionnement / Population

Ratio 5 Dotation d'equipement par habitant (Dh / Hab)
Dotation d'equipement / Population

3 La richesse propre

Ratio 6 Autonomie financiere (%)
Recettes Propres / Depenses de fonctionnement

Ratio 7 Richesse fiscale (%)
Recettes fiscales / Recettes de fonctionnement

Ratio 8 Recettes fiscales par habitant (Dh / Ha)
Recettes fiscales / Population

4 Le service rendu

Ratio 9 Service rendu par habitant (Dh / Hab)
(Depenses de fonctionnement - annuites - depenses d'ordre) / Population

Ratio 10 Part des depenses de personnel dans les Depenses de fonctionnement (%)
Depenses de personnel / depenses de fonctionnement

Ratio 11 Coût en personnel par habitant (Dh / Hab)
Depenses de personnel / Population

5 L'endettement

Ratio 12 Charge de la dette dans les depenses de fonctionnement (%)
Annuites / Depenses de fonctionnement

Ratio 13 Taux d endettement (%)
Annuites / Recettes propres

6 L'equipement

Ratio 14 Investissement par habitant (Dh / Hab)
Depenses d'investissement / Population

Ratio 15 Part de l'emprunt dans le financement des depenses d'investissement (%)
Emprunts / Depenses d'investissement

7 Les resultats

Ratio 16 Taux d'epargne brute (%)
Excedent verse / Recettes de fonctionnement

Ratio 17 Taux d'epargne propre (%)
Epargne propre / Recettes propres

Ratio 18 Taux de la fausse epargne (%)
Fausse epargne / Dotation de fonctionnement

Ratio 19 Proportion des credits d'investissement non consommes (%)
Credits non consommes / Recettes d'investissement

Appendix III
Case Studies of Municipal Finance Mechanisms and Structures

The following four case studies illustrate the types of mechanisms that are being developed to provide market-raised financing to local governments in emerging municipal and financial sectors They demonstrate the creative application of a number of the risk management concepts discussed in the report

Municipal Finance Case Study	
Case Maine Municipal Bond Bank	**Location** State of Maine, U S A

Description A state-sponsored financing structure that sells its own securities in the public bond market, and then relends the proceeds to municipalities for local infrastructure projects

The Maine Bond Bank was created in 1972 to provide access to national capital markets for Maine local governments The Maine Municipal Bond Bank sells tax-exempt and taxable bonds, and uses the proceeds to purchase municipal borrowers' bonds As an independent agency the Treasurer of State, Superintendent of Banking, and three Governor-appointed commissioners make up the board of commissioners The board reviews submitted applications, and bases decisions on project purpose, cost, project schedule, taxes, demographic trends, financial history, and economic base

Primary programs provided by the Maine Bond Bank are issuance of long-term bonds, funding state-revolving funds (SRFs), and other assistance such as payment of costs of issuance and funding of debt service reserves Of its long-term bond pool, 15% of loans are made for water projects, 5% of sewer projects, 10% for transportation-related projects, 53% for schools, 3% for solid waste management, and the remaining 12% of loans were made for other miscellaneous service provision The average loan size for the Maine Bond Bank is between $1 000,000 and $2 999,999 While almost half of all state bond banks require a general obligation pledge, the Maine Bond Bank does not, instead, a minimum 1 0x debt service coverage ratio is required

Other financial services offered by the Maine Bond Bank are interest rate and debt service estimates, bond structuring, identification of other financing resources, and arbitrage rebate assistance On behalf of municipal entities, the Bond Bank issues general tax exempt bonds, taxable bonds, private activity bonds, and packages individual bond issues for projects needing more than $10 000,000

Bond Banks have proven to be highly adaptable, efficient conduits to low-cost borrowing for many communities Bond banks are most often used because they provide a lower cost of capital (interest rates and costs of issuance) and provide better access to the municipal bond market Furthermore, bond banks are useful for projects that are too small to be sold publicly in a stand-alone manner Rated as a "Aa3" by Moody s and as an "A+" by Standard & Poor s the Maine Bond Bank provides these and other important economic development benefits to the state of Maine

Contact Information Maine Bond Bank 45 University Drive, P O Box 2268 Augusta Maine 04338-2268 Telephone 207-622-9386 Robert O Lenna Executive Director

Municipal Finance Case Study

Case INCA (Infrastructure Finance Corporation) | **Location** South Africa

Description Special financing vehicle issuing bonds in South African capital market for municipal infrastructure lending

INCA is a debt fund for infrastructure, whose target clientele includes local authorities, parastatal bodies and public utilities, district councils, provinces, and private firms involved the infrastructure development in South Africa Equity investors include both private and public investors First National Bank its founding institution, other banks and insurance companies, the Commonwealth Development Corporation (a British development finance agency), DEG (a German development agency), Proparco (a subsidiary of Caisse Française de Developpement) and the Dexia Group (a universal bank owned by Credit Local de France and Credit Communal de Belgique)

The company raises debt through the South African capital markets by issuing two classes of bonds (senior and junior), each with terms of 7, 10 and 15 years The first sale of senior bonds, in the amount of R500 million (±$120 million) took place in February 1997 Total senior debt is authorized up to R1 2 billion and an additional R200 million of junior debt is expected to be raised The organization has received an AA- credit rating from IBCA, an international credit-rating agency

The equity and junior bonds are held in reserve to provide security to the senior bondholders in the event there is a problem with loan repayment These reserves lower the cost of the senior debt for INCA and, as a result, to the municipal borrowers Because of this credit enhancement, the first borrowing of senior debt was loaned out at an average rate of 16 percent, which was extremely competitive in the South African market This rate was only 80 basis points over the Republic of South Africa's treasury bonds of like term, and only 1 percentage point over the concessional interest rates then available from the Development Bank of Southern Africa

This reserve also allows considerable financial leverage in the raising of senior debt Based on the capital adequacy commitment made to senior bondholders of 4 8 percent, each rand of reserve allows 21 rands of senior debt to be raised, producing 21 times leverage (1/0 048 ≈ 21)

INCA makes loans only after assessing the creditworthiness and risk of the borrower, using a credit model with 55 elements that compares the borrower to others in a similar class, and flags deviations from norms The credit model analyzes the financial position, economic environment, institutional capacity of the borrower, as well as the environmental and socio-political impact of the project The resulting "shadow rating" allows INCA to classify each loan into one of five risk categories, developed with the assistance of IBCA, the international credit rating firm

The proportions of equity, junior bonds, and senior bonds are based on the risk characteristics of the infrastructure loan portfolio Loans in each risk category are allowed only up to a certain percentage of the overall portfolio Each risk category has its own capital requirement, as well with the higher risk category loans requiring a larger capital reserve than those in lower risk categories

Loans are structured as bond issues to borrowers so that later they may be able to be traded in the capital market Project categories include electricity sanitation roads solid waste, water and other Municipal bonds issued prior to INCA's were guaranteed by the central government, but INCA's are not The liquidity of INCA bonds is guaranteed to bondholders by a market-maker that stands ready to trade INCA bonds if no other trade can be made in the market

Contact Information Infrastructure Finance Corporation PO Box 1153, Johannesburg 2000, South Africa Telephone (27) (11) 371-2247 Fax (27) (11) 352-9678 Johan Kruger, Managing Director

Municipal Finance Case Study	
Case The BOT Center	**Location** Philippines
Case Municipal Infrastructure Investment Unit	**Location** South Africa
Description Support programs for private investment in infrastructure	

The BOT Center in the Philippines was created by the Coordinating Council of the Philippine Assistance Program in 1994 to promote private national and foreign funding of infrastructure projects, with support from USAID The country had experienced a surge in investment in the power sector following a program of policy reform and government support, and wanted to convey this experience into other infrastructure sectors

The BOT Center works with local governments and national agencies to promote privatization and train these entities to manage the BOT process It also facilitates private sector participation and helps to speed up the BOT process generally Technical assistance is provided to develop bid packages, and the Center helps to evaluate responses to bid offers and select winners

Privatization in the local government sector has been more complex than that of the power sector, which was a national priority, supported by the resources and policy decisions of government Local government projects are smaller and sometimes more difficult to commercialize Procedures for privatization in the various sectors are just emerging, and the policy and administrative framework for local government privatization are still not fully articulated The BOT Center is working to address these constraints

Since the BOT law was passed in 1990, 27 national projects have been completed and 56 are in process Collectively, the 83 projects represent $16 billion in investments More than half of them are in the power sector Another 23 local government projects of various kinds (including water and sanitation, transportation and others) with a total investment value of $872 million are also in process

The Municipal Infrastructure Investment Unit (MIIU) was created in 1998 by the Development Bank of Southern Africa to facilitate private investment in local government projects in South Africa Its mission includes assisting "the development of an established market containing informed local authority clients, private sector advisers, and private sector investors and service providers

Planned as a five-year intervention, the MIIU is assisting local authorities in the process of hiring private sector consultants and expertise for project preparation, and with the management of contracts with the private sector by providing grant funding and technical support The MIIU includes a Board of Directors, a secretariat, the grant fund and a project preparation unit

Private investment is broadly defined by the MIIU to include private sector financing of municipal debt, contracting out management of services concessions to operate local authority assets over a defined period contracts requiring the private sector to design, build, finance and operate assets to deliver services for the local authority and full privatization of assets and services Core services that are the first priority for support include water and sanitation energy transport waste management and fire and emergency services

Contact Information BOT Center Mr Jorge M Briones Deputy Executive Director Podium Level Executive Tower Bldg , Bangko Sentral ng Pilipinas, A Mabini St , Ermita 1000 Manila Telephone (632) 526-2237 to 40, 522-1808, Fax (632) 521-4263 525-7126	**MIIU** Development Bank of South Africa 1258 Lever Road Headway Hill, P O Box 8151, Midrand 1685 Telephone 27 (011) 313-3427 Fax 27 (011) 313-3629 *Mohla Hlahla Director*

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Municipal Finance Case Study

Case Municipal Leasing	**Location** Various

Description Financing method that allows local governments to acquire assets through installment payments, and purchase at the end of the lease

Municipal leasing entities are on the increase in response to an obvious demand for their services from local governments Municipal lease obligations usually involve a financial intermediary, which can be either a public or a private entity, through which the local government leases assets There are benefits to both the lessor (intermediary) and lessee (municipality) that can be derived from this financing method

In principal, a well-structured lease allows a municipality to save money on some assets and projects so as to be able to provide better services to its citizens Instead of spending a large sum of money for purchasing an asset the local government can pay installments, and current available cash is preserved for other services Examples of projects financed by a lease include public safety and public works equipment, school buses and other rolling stock, classroom material, technology upgrades and renovation or construction projects

It is more advantageous for local governments to lease rather than buy some of the assets required in providing essential services because leasing allows the purchase of equipment from funds in the operating budget rather than the capital expenditures budget As such, the equipment can be purchased when needed, as opposed to waiting until the next year's budget is drawn up While funds could be borrowed, a lease sometimes offers lower payments than would be required in a commercial loan A municipal lease also offers local government a flexible payment schedule, expanded budget capabilities, and the option to cancel the lease, in the event that funds become scarce or the asset is no longer needed

Adirondack Leasing, founded in 1982 in Northeastern U S , has processed over 15,000 applications and has annual sales in excess of $8 million The California-based Municipal Leasing Associates, founded in 1977, has fulfilled financing commitments (as of 1997 year-end) in excess of $1 1 billion in asset cost Examples of some other leasing entities include the Philadelphia Municipal Authority, Laurel Mountain Leasing, the Maine Bond Bank, and an entity in Shanghai which finances infrastructure facilities through leasing

The transactions of municipal leasing firms in Morocco are increasing In 1997, Morocco's half dozen leasing firms' turnover rose to 2 9 billion dirhams from 2 46 billion dirhams in 1996 Of the 49 listed intermediaries, the more well-known ones include Maghrebail, Maroc Leasing, Soge Lease, Union Bail, and Wafabail

A leasing company may be seen as a more attractive way for investors to put money into the municipal sector than investing directly in projects The leasing company can ensure a return and retains title to the leased assets The existence of a leasing entity could draw in funds from private investors, increasing the size of the pie of financial resources available to municipalities In effect, the end result of this financial restructuring would be greater municipal resources and as such, enhanced local government service provision

Contact Information Municipal Leasing Associates Inc 26565 W Agoura Rd Suite 201 Calabasas CA 91302 Telephone 818-878-1980 Fax 818-878-1981	Adirondack Leasing Associates Ltd Telephone 1-800-678-7342 Gerry Oestreich ext 21 Janet Levine ext 16

Appendix IV
Options to Provide Local Currency to the FEC under USAID Housing Loan Guarantee Program

Situation The Fond d'Equipement Communal (FEC) in Morocco has available to it a US$5 million loan of up to 30 years in US dollars Because the U S lender receives a U S government guarantee on repayment, the interest rate that will be paid on the loan is similar to the rate on U S Treasury securities, although the effective rate is higher due to transaction fees For prior borrowings under the loan, the FEC has received a credit and exchange risk guarantee from the Government of Morocco, although it is currently assumed that only the credit guarantee will be available for this borrowing FEC expects to pay a transaction fee to the government of Morocco of between 2½% and 5% for the credit guarantee The FEC is looking for suggestions on how to cover the currency risk associated with this transaction

The options below have been tentatively identified as arrangements that might provide currency risk management for this loan

Option 1 Private Bank Provides Security and Long-term Swap (India case)

FEC
1) Raises funds in U S market which are then turned over to (swapped with) local financial institution for period of time to be negotiated

Bank
1) Receives dollars and uses them in other dollar transactions (dollars may or may not be brought onshore in Morocco)
2) Bank provides local currency to FEC and may service USAID loan on behalf of borrower Bank may also agree to set up "line of credit" with FEC to provide funds as needed
3) Bank provides repayment "guarantee" to USAID based on its own financial strength, in lieu of government guarantee
4) Loan can be made up to 30 years, however, Bank or FEC may request shorter loan or may request option to exit arrangement and refund dollars earlier
5) Since only 1 year forward coverage is available in local market at this time, Bank will need to have use for dollars that ensures that value is retained during period of loan

U S Government Requirements
1) Bank credit rating better than or equal to government (USAID will need to conduct CAMEL analysis of bank)
2) May require that Bank provide its own "guarantee" of repayment to U S government

Advantages	Certainty of interest cost for the FEC over swap period, possible assistance with administration of USAID loan
Disadvantages	Cost unknown, need for bank to get CAMEL rating

Costs USAID fees (1% flat at closing + 1/2% per annum on outstanding balance), possible fees to arrange transaction, differential between U S loan rate and dirham rate, call premium

Option 2 FEC Purchases Short-term Local Currency Coverage in Moroccan Market

FEC

1) Raises funds in U S market and swaps them in Moroccan market for one year (lends dollars and borrows dirhams)
2) Receives dollars back at the end of each year or the swap is renewed The period of the swap arrangement could lengthen if the swap market lengthens during the term of the loan
3) Makes debt service payments from internal funds (semi-annual) and/or portion of the dollars and earnings on the dollars
4) Should arrange a variable rate loan to lessen exchange/interest rate differentials and include a call provision to shorten loan term if currency risk rises To lessen risk exposure may need to shorten loan period and eliminate grace period

Bank

1) Borrows dollars and lends dirhams, receives transaction fee and/or rate of return on difference between two interest rates
2) May also provide debt servicing for a fee

U S Government Requirements

1) U S may still require a currency exchange risk guarantee from the Government of Morocco, even though it would not be needed by the FEC
2) Alternatively, the FEC may be able to substitute a line of credit with a Bank to cover cash flow requirements associated with exchange rate movements The Bank would need to have an equal or better credit rating than the Government of Morocco, and would need to have a CAMEL rating by USAID

Advantages Interest cost certainty during year

Disadvantages Interest cost uncertainty between years, call provision will add to cost of loan

Costs USAID fees (1% flat at closing + 1/2% per annum on outstanding balance), cost to arrange annual swap, differential between U S loan rate and dirham rate, line of credit fee, call premium

Option #3 Local Currency Borrowing

FEC

1) Finds one or more American firms (banks) who will issue local currency loan (of term to be negotiated) in return for U S government guarantee of loan repayment
2) May want to conduct bidding procedure for best terms if more than one eligible institution is identified

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Bank
1) Participates in auction to establish the terms of the loan or negotiates terms with FEC
2) Provides local currency to FEC and receives repayment in local currency
3) May require additional form of security from FEC due to cap on U S government guarantee level

U S Requirements
1) Firm receiving guarantee must be owned 51% or more by U S citizens
2) U S will put cap on amount of principal in local currency it will guarantee (no guarantee of interest?)
3) Exchange risk guarantee from Government of Morocco may not be required, however, waiving requirement for this may require U S government approval
4) Local currency transaction may require U S government approval Negotiated transaction (rather than competitive auction) may require U S government approval

Advantages	Interest paid in local currency — no currency risk, if variable rate loan, could be pegged to local (rather than international) interest rates
Disadvantages	Need to identify eligible U S firms, may pay premium rate for guarantee cap or need to provide other security
Costs	USAID fees (1% flat at closing + 1/2% per annum on outstanding balance), possible fees to arrange transaction, opportunity costs associated with additional security

Appendix V
Persons Consulted and Materials Reviewed

Persons Consulted

Mohammned Akhıyat
Chef de Departement
Suıvı et Supervısıon
Fonds d'Equıpement Communal
1, Rue Oued Baht,
Agdal - Rabat
B p 8020 (N U)

Hamıd Ben Elafdıl
Dırecteur General Fondateur
Polyfınance
309, Bd Zıraouı - Casablanca - Maroc

Zouhaır Chorfı
Inspecteur Des Fınances
Chef De La Dıvısıon Des Etudes
Monetaıres et De La Reglementatıon Bancaıre
Mınıstere Des Fınances et des Investıssements Exterıeurs
Dırectıon du Tresor
Royaume De Maroc
Rabat, Morocco

Youhess Dımıa
Chef De Servıce Controle De Gestıon
Fonds d'Equıpement Communal
1, Rue Oued Baht,
Agdal - Rabat
B p 8020 (N U)

Tına Dooley-Jones, Ph D
Tahar Berrada
Regıonal Urban Development Offıcers
US Agency for Internatıonal Development
137 Av Allal Ben Abdellah
B p 120
Rabat (Maroc)

Abdelrhani Guezzar
Directeur Financier
Fonds d'Equipement Communal
1, Rue Oued Baht
Agdal - Rabat Morocco
B p 8020 (N U)

Ahmed Hajji
Ingenieur En Chef
Directeur De La Planificotion
Direction Planification et Developpement
Office National De L'eau Potable (ONEP)
28, Rue Oqba - Agdal
Rabat - Maroc

Michael Kitay
Assistant General Council, Global Affairs
USAID/Washington
Ronald Reagan Building
Washington, DC

Khalid Lahlou
Chef De Service
Fonds d'Equipement Communal
1, Rue Oued Baht
Agdal - Rabat Morocco
B p 8020 (N U)

Mohammed Mekouar
Chef Departement Financement
Fonds d'Equipement Communal
1, Rue Oued Baht
Agdal - Rabat Morocco
B p 8020 (N U)

Mohamed Oudor
Directeur du Credit
Fonds d'Equipement Communal
1, Rue Oued Baht
Agdal - Rabat Morocco
B p 8020 (N U)

Lorenzo Rasettı
Internatıonal Consultıng Servıces
Coopers & Lybrand
1530 Wılson Blvd
Arlıngton, Va 22209-2447

Materıals Revıewed (Partıal Lıst)

Alaouı, Mranı, "Les Préalables à la mıse en servıce " Le Matın du Sahara et du Maghreb Le 23 Maı 1998

Bank al-Maghrıb, Dırectıon de Affaıres Internatıonales, No 61/DAI/96, "Cırculaıre Relatıve au Marché de Changes " Rabat, le 1er avrıl 1996

Basrı, Mr Drıss, State Mınıster for the Interıor and Informatıon, "Government Report on Decentralısatıon " VI Colloque Natıonal de Collectıvıtıes Locales, Tetouan Juın 1994

Ben Elafdıl, Hamıd, "Qu'est-ce que la tıtrısatıon?", La Vıe Economıque Le 23 Janvıer 1998

Dooley-Jones, Tına to V Gary, Dırector G/ENV/UP, *et al,* "FY97 UE Morocco Authorızatıon " Memorandum dated 16 June 1997

Doty, Peter L , "Enhancement of Fınancıal Management and Internal Control Systems " Prepared for USAID, Rabat, Morocco by Technıcal Support Servıces, Inc July 1997

Eddy, Jane, "Ratıng Local and Regıonal Governments ın Emergıng Markets " Standard & Poor's CredıtWeek Munıcıpal September 15, 1997

FEC, "Comıte de Credıt du Rapport d'Evaluatıon " Several evaluatıon reports dated September 1994 to May 1998

FEC, Conseıl d'Admınıstratıon du Fonds d'Equıpement Communal, Seance du 21 Fevrıer 1997

FEC, Dırectıon Fınancıere, Servıce Gestıon des Emprunts, "Duratıon du portegeuılle FEC "

FEC, Dossıer d'Informatıon, Certıficats de Depots, Plafond de l'Encours 98 750 Dh

FEC, Etats Fınancıers, Aux 31 December 1996 et 1995, Prıce Waterhouse Le 2 maı 1997

FEC, Prevısıons Fınancıeres, 1997-2000

FEC, Rapport d'Actıvıte au 31 Decembre 1996

FEC, Rapport d'Actıvıte, Exercıse 1997

58

Government Fınance Group, "An Analysıs of State Bond Banks " Prepared for Councıl of Infrastructure Fınancıng Authorıtıes CIFA Monograph No 9 February 1997

Infrastructure Fınance Corporatıon, Ltd , Annual Report, 1997 Johannesburg 2001

"Le marché secondaıre prend de l'ampleur," La Vıe Economıque Le 23 Janvıer 1998

"Le syndıc ıntercommunal joue la carte de la competence," Le Matın du Sahara et du Maghreb Le 27 Maı 1998

"Maıne Munıcıpal Bond Bank Makıng a Dıfference for Maıne's Communıtıes," Maıne Munıcıpal Bond Bank http //www maınebondbank com/ındex html June 25, 1998

"Marche hypotheaıre Le bout du tunnel " L'Economıste Le 21 Maı 1998

Mehıla, Dorayd, "L'actıon CIH, a acheter dans un horızon de placement a long et moyen termes " La Vıe Economıque Le 22 Maı 1998

Mehıla, Dorayd, "Le marche oblıgataıre va être plus transparent grâce a la cotatıon électronıque," La Vıe Economıque, [date unknown]

Pıgey, Julıana H , et al, "Analysıs of Munıcıpal Investment Portfolıo and Projectıons of Fınancıng Needs, Fonds d'Equıpment Communal " Prepared for USAID, Rabat, Morocco by Technıcal Support Servıces, Inc [no date]

Pıgey, Julıana H , "Reorganızatıon Study Tour for the Fonds de'Equıpment Communal (FEC), Summary Report " Prepared for USAID, Rabat, Morocco by Technıcal Support Servıces, Inc March 1997

Rao, G Krıs, "Credıt Impact of Short-Term and Varıable-Rate Debt " Standard & Poor's Sprıng 1997

Royaume du Maroc, Mınıstère des Fınances et des Investıssements Extérıeurs A Monsıeur le Dırecteur General du Fonds d'Equıpement Communal, "Couverture du rısque de change afférent aux emprunts exterıeurs du FEC " [no date]

Royaume de Maroc, Mınıstere de l'Interıeur, Dırectıon Génerale de Collectıvıtes Locales, "Guıde des Ratıos Fınancıers, 1990 Communes Urbaınes " Mınıstere de l'Interıeur, D G C L /D A J E D C Octobre 1993

Royaume de Maroc, Mınıstere de l'Interıeur, Dırectıon Generale de Collectıvıtes Locales, "Presentatıon du Project de Plan Comptable General des Collectıvıtes Locales et de Leurs Groupements P C G C L Juın 1994

Weıss, Rıchar, "Securıtızatıon Study " Prepared for USAID, Rabat, Morocco by Technıcal Support Servıces, Inc October 1997

World Bank, "Morocco Second Munıcıpal Fınance Project " WAIS Document Retrıeval February 1997

Zouhaır, Chorfe, Inspecteur de Fınances, Chef de la Dıvısıon des Etudes Monetaıres et de la Reglementatıon Bancaıre, "L'evolutıon de Systeme Bancaıre Marocaın Depuıs 1990 "