Bridging the Housing Gap in Emerging Markets: A Report from the Overseas Private Investment Corporation

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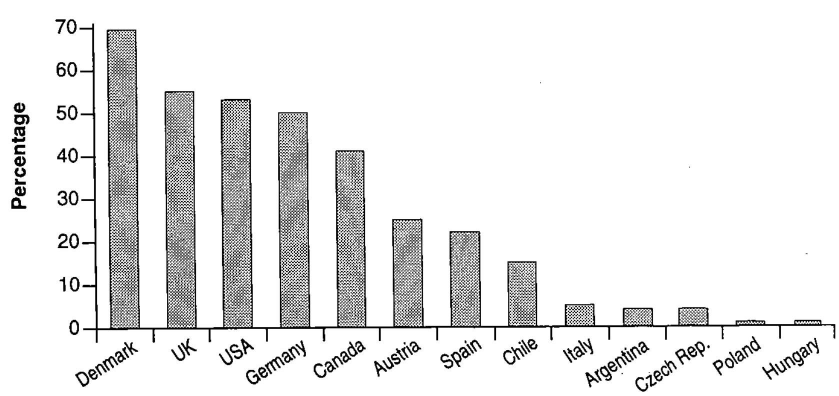
U.S. HOUSING EXPERTISE NEEDED IN EMERGING MARKETS

Within a generation, the number of urban residents in developing countries will increase by 2.5 billion—the current urban population of the entire world. The scale of this urbanization and its impact on the ability of the countries to meet the housing needs of their citizens will be unprecedented. In fact, a recent KPMG survey of the mayors of the world's largest cities ranked housing as one of the top five priorities for the next three years and the number one priority in the next 10 years for their cities. Real estate assets account for anywhere between 7% and 20% gross domestic product in countries around the world, and housing expense accounts for between 15% and 40% of monthly family expenditure (Figure 1). This means that the systems that support housing development are critical to the long-term growth and stability of countries, as well as to their people. The theme of this paper is that in order to meet this great need (which represents opportunity as well), as effectively as possible, private capital and technical expertise must be engaged along with the public sector efforts. Organizations like OPIC, that bridge the public and private perspectives, will play a critical role in this process.

The major barrier to meeting the housing needs in developing countries is the lack of long-term capital. The pool of international capital is large, but competition for long-term funding is fierce. This group of international investors is primarily institutional, and is therefore mostly risk averse. Their first priority is liquidity, with yield a distant second. This means that emerging markets will find it difficult to compete with established issuers from developed countries. And, institutional investors, both domestic and international, are limited in the amount of real estate-related assets they can hold. While local pension funds may have the capital to invest in mortgages or real estate, they often prefer (or are forced by regulation) to

Figure 1 Housing Loans Outstanding as a Percentage of GDP



buy government-backed bonds. Since mortgage instruments in developing markets are new, they are illiquid, making them unattractive investments, regardless of their social value. As a result, most housing in developing countries is funded directly by government institutions, offered by banks on a short-term, variable rate basis, or is not available at all. Conversely, demand for long-term loans is limited in countries with particularly unstable economic conditions. People are not willing to take on long-term debt unless they have some assurance of payment stability, fair enforcement of the loan contract and ultimate economic value of the home investment. As one person said, "People in my country may be poor, but they aren't stupid."

Development institutions around the world have been increasing their focus on the housing sector. The U.S. Agency for International Development (USAID), for example, has had a housing finance program for many years, and most recently has been working in Poland and Eastern Europe, Russia and the Newly Independent States. Its funding has been greatly reduced by Congress, and therefore new projects are scarce. Housing and Urban Development (HUD) has also been sharing information and resources with governments in China, South Africa, Central America and Brazil, as they work to establish sources of affordable housing and mortgages. The Inter-American Development Bank has housing-related projects in various stages in a number of countries, including Mexico, Venezuela and Bolivia. The Organization for Economic Cooperation and Development (OECD) and the United Nations (UN) have new initiatives to support housing finance primarily in the Central and Eastern European region as well as in the Newly Independent States (NIS). These government-to-government efforts are useful, because they have facilitated new enabling legislation for securitization and other housing finance infrastructure, as well as new laws on foreclosure and eviction, land titling and property transfers. Changes in elected officials, along with a lack of coordinated policies on housing and finance have hampered these efforts.

The International Finance Corporation and the World Bank have facilitated the creation of a variety of second tier financial institutions whose role is to bring new capital to housing by selling bonds, and using the proceeds to purchase long-term loans originated by local intermediaries. Other similar organizations have been created by local governments to guarantee, fund or securitize mortgage loans for low- and moderate-income homebuyers. A few examples are listed in Figure 2.

While the structure of these institutions varies, they perform a valuable market function by facilitating standardization of loan terms, documents, underwriting guidelines, and by collecting market data for investors and risk-sharing entities. They also impose standards of practice of operations of companies that originate and service on their behalf. They can become a regular issuer of bonds in the marketplace, helping to establish a benchmark for private issues and to create confidence in the quality of housing-related investments. Governments often give these institutions beneficial treatment under local laws regarding property registration, foreclosure, eviction and loan transfer in order to ensure their success in attracting investors and customers.

This type of facility (the so-called secondary market systems) is familiar to U.S. companies, so there will be good opportunities to establish joint ventures with local lenders in order to import more modern loan production and servicing systems that reduce operational cost, improve management control and enhance lending capacity. This type of "secondary market" system also tends to lead to the segmentation of lending functions, which motivates supporting entities to invest in the development of housing-related products such as insurance, appraisal, credit reporting, technical services, brokerage and property management for condominiums. These institutions reduce risk for borrowers and investors by reducing costs, and improving liquidity and flexibility of the system.

Figure 2 Second Tier Lenders in Developing Markets

Korea	Korean Mortgage Corporation (KOMOCO)
Malaysia	CAGAMAS
Algeria	Société de Refinancement Hypothécaire (SRH)
South Africa	S.A. Home Loans
Ecuador	Corporacion de Desarrollo de Mercado Secundario De Hipotecas (CTH, S.A.)
Brazil	CIBRASEC
Russia	Agency for Mortgage Lending
Mexico	FOVI
Hong Kong	Hong Kong Mortgage Corporation
Argentina	Corporacion Financiera Hipotecaria (CFH)
Caribbean	Eastern Caribbean Home Mortgage Bank
Trinidad-Tobago	The Home Mortgage Corporation

CROSS BORDER ACTIVITY

Cross-border activity in housing development is not new. Builders have been active in Eastern Europe, Asia and Latin America for some time. The activity in finance has taken longer to develop, but it is on the rise as it originates not only from the U.S., but also from Canada, Australia, Germany and The Netherlands, to name a few. Most of this activity is between developed countries, with a few exceptions. European lenders are logically focused on their neighbors to the East. U.S. and Spanish companies are moderately active in Latin America, with some of the multinational companies making inroads to more advanced Asian markets such as Japan, Hong Kong and Korea.

The types of cross-border activity taking place in the developing housing finance markets today include:

- **Insurance**—hazard, title, private mortgage, bond
- **Private label servicing** (and application service providers)
- **Technology**—origination and servicing systems, etc.
- **Due diligence, trust services, custodial services, other services** related to structured finance transactions
- **Ratings of transactions** and **servicing operations**
- **Portfolio acquisition** and **distressed asset recovery**
- **Warehouse finance**
- **Investment banking**

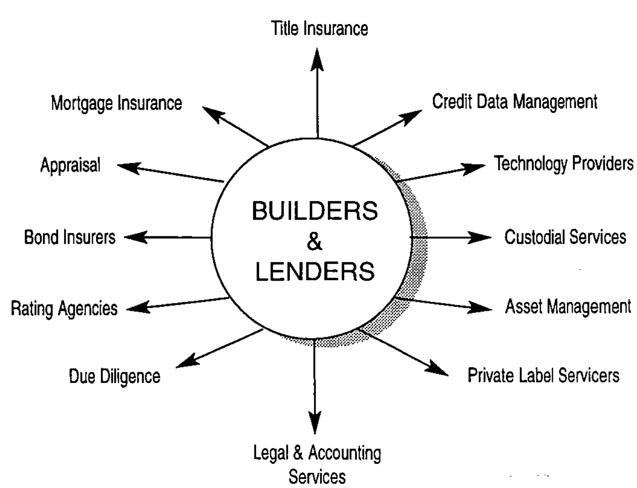
In general, these activities are characterized as fee-based services, in the sense that there is little (if any) capital invested by the U.S. company. It is also important to recognize that there is great variance among countries and companies as to the level of activity, which can be described as anything from simple technical consulting or fact-finding to partnerships with local firms. The market for these fee-based services is limited because most of them prefer direct investment from foreign companies in the form of technology, expertise or capital. They are not, as a rule, prepared to pay high fees for services because: (1) they don't have the capital to do it, or (2) they don't believe that a consultant is sufficiently committed to the venture to give good advice. After all, emerging markets can be quite competitive. The local owner will want exclusive rights to the know-how of the foreign advisor and will prefer that the advisor have a vested interest in the success of the company (consultants are welcome as long as someone else is paying for them, such as the World Bank, etc.).

The housing industry in developed markets is supported by a large network of services, most of which have just begun to develop in emerging markets. The need for a wide variety of specialized service providers is a function of the size of the market and the types of funding utilized (Figure 3). The types of services that have been slowest to develop in emerging markets are the following:

- Purchase of mortgage-backed bonds or whole loans
- Purchase of mortgage servicing rights
- Establishment of subsidiaries or branches of U.S. company
- Multinational loan/asset management services
- Relocation of U.S. based "back office" operations
- Equity investment in or acquisition of local lenders

As mentioned before, while the opportunities in emerging markets appear to be sig-

Figure 3 Variety of Specialized Services Required



nificant, U.S. mortgage companies have been most attracted to Western Europe, Canada, Australia, Hong Kong and Japan where the political and economic risks are considered to be low, and the financial markets are well developed. There are still significant barriers to doing business in these countries, but they are perceived as surmountable, given the opportunities. U.S. companies can bring the latest risk management techniques and operational efficiencies to foreign partners, which in turn help those companies achieve a competitive advantage in their markets. In some cases there are two-way benefits, in that European partners may offer products that may help gain access to new markets in the U.S.

This is a fundamental paradigm of risk and reward. The effort and risk required to enter any foreign market is high, especially in the lending business. This means that the rewards have to be substantially quantifiable to justify this risk. Hence the emphasis on developed countries, despite the fact that developing markets would appear to have greater long-term opportunity. Mainstream U.S. companies and investors will turn to developing real estate markets when:

1. They have exhausted the possibilities of so-called "low hanging fruit" in more developed markets.

2. They have developed their own internal capacity to manage cross-border transactions (working in relatively low-risk markets is a preliminary step to more complex markets).

3. They have sufficient understanding of the real risks in emerging markets and how to manage them, as well as how to price them.

4. There have been enough international transactions to show historical performance of emerging markets in economic crisis, or consensus that major economic crises are unlikely in the near future.

5. Everyone else is doing it successfully.

There is a small but dedicated group of companies that are involved in developing countries, and these companies are the innovators with whom OPIC can create new solutions that can be replicated elsewhere. If the U.S. investor is presented with a model product that anticipates and addresses their risk concerns, the amount of activity is sure to increase. On the other hand, competitive instincts prevail, and many U.S. companies that have invested the time and funds to penetrate a new market do not want to give up their beachhead too quickly to the competition. While the development of standardized financing structures is very beneficial to the local market because it does increase competition and lowers costs, it is important to realize that for the foreign innovator it is a mixed blessing.

A key barrier to further development of U.S. interests in foreign real estate markets is the perception that all developing markets are equally risky. In part this stems from an abundance of caution mentality after the series of financial crises that have rocked the globe over the past 20 years. It is also the result of a general lack of understanding about the varying levels of risk and kinds of risk that exist in developing real estate markets. U.S. companies tend to have short planning horizons, limited capital for new business ventures, and very limited access to information about foreign markets. In addition, the U.S. housing market is huge—there is plenty of room for companies to compete on the tactical level at home, without taking unknown risk on a strategic venture with a long horizon for positive returns.

The fact is that there are wide variances on the type and degree of risk involved in housing finance among developing countries, as well as within the different regions of each country. In order to facilitate investment in emerging housing markets it will be necessary to more clearly quantify those differences. The participants in the OPIC roundtable on March 30, 2000, agreed that it is possible to be successful in developing markets with patience, creativity and adaptation to local conditions. They were pleased to see OPIC's interest in providing more support for them, since with their unique local knowledge they can leverage the capacity of OPIC very effectively to increase their business volume as well as their returns. The representatives from the emerging markets also see great benefit to using OPIC to support them when they are seeking business partners in the U.S.

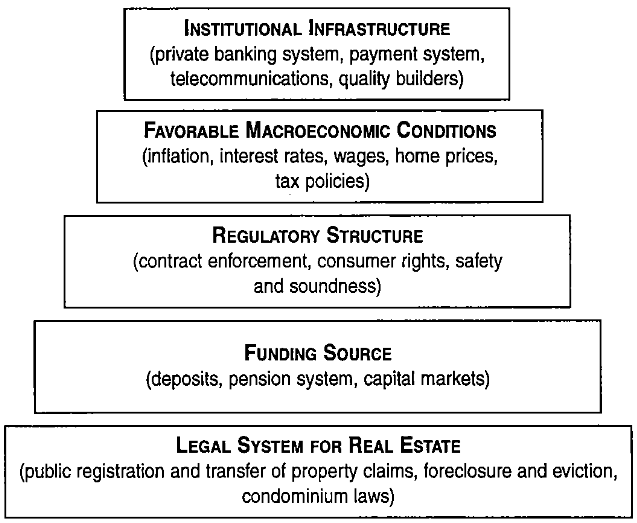
CHALLENGES IN HOUSING DEVELOPMENT

The range of barriers to development of housing and mortgage finance in developing countries is well known. These are generally listed as "lacks," that is, things that exist in the U.S. and other developed countries but don't exist in the target markets. It is more appropriate to examine the extent to which risk exists in those markets and how that risk can be managed or mitigated. As we learned at the roundtable meeting, risks that would be perceived as unacceptable in the U.S. or Europe have been successfully mitigated by effective management or creative financing structures in developing countries.

This is discussed in more detail later in this article.

However, there is general agreement that there are fundamental factors that would prohibit the development of any sustainable private housing market, and consequently would represent the minimum threshold for foreign investment as well. These factors are shown in Figure 4.

Figure 4 Housing Market Hierarchy



Other barriers that exist in varying degrees can be (and have been) overcome, depending upon the circumstances. Using an underwriting analogy, it is possible to compensate for one major weakness in a deal, but a combination of small factors can be fatal. The combination of factors that make real estate transactions succeed is extensive, and includes variables ranging from global economic conditions to loan level characteristics and lender capacity.

The problems that are generally encountered in emerging markets in addition to the "macro" issues listed above are summarized below:

Customer/Borrower

- Informal/unreported income commonplace
- Little use of formal banking system
- Tax avoidance by underreporting of income and property value
- Lack of knowledge about mortgages, homeownership value
- New credit culture
- Lack of alternatives of housing
- Small loan sizes

Lending Operations

- Short-term, variable rate loans, low loan-to-value ratios
- Lack of standardized documentation and underwriting guidelines
- Overall low level of technical expertise in the real estate and mortgage finance operations
- Lack of reliable data of all kinds
- Weak credit reporting system

Market Characteristics

- Informal housing is commonplace
- Competition from government institutions at subsidized rates
- Predominance of new construction, and/or lack of resale market for houses
- Lack of systematic private construction industry
- Little professional infrastructure in appraisal, credit reporting, title insurance, financial services counseling, brokers, rating agencies, trustees, document custodians, etc.
- Lack of domestic investors for long-term mortgage debt
- Relatively limited development of the capital markets

Legal/Regulatory System

- Laws prohibiting data transfer out of the country, or among financial institutions
- Weak regulations for condominium association management
- Weak or unproven implementation of foreclosure and eviction laws
- Excessive delays in recordation of title transfers and liens
- Conflicting or ambiguous regulatory regime for mortgage lending
- Lack of legal provision for special purpose vehicle, or trust law for securitizations

RISKS OF REAL ESTATE FINANCE ACTIVITIES

Mortgage lending in any market has risks that are summarized in Figure 5.

All mortgage markets are subject to temporary fluctuations in pricing and availability of funds, based upon changes in investor appetite for real estate-related investments, local economic conditions, and, as we saw most recently with the "flight to quality" in the U.S., global capital flows. The extent to which a market is exposed to these fluctuations is dependent upon the depth and breadth of funding sources as well as its economic stability. The U.S. has the broadest and deepest market for mortgage finance in the world. But its sheer size is an important consideration when attempting to apply U.S.-style measurement methods to other countries.

Figure 5 Risks of Real Estate Finance Activities

Types of Risk	*Presence of Risk* *Primary Market*	*Secondary Market*	*Both in Different Forms*
Legal			
Loan Agreement	x		
Enforceabilty			x
Property	x	x	
Consumer Protection	x		
Business Fraud			x
Borrower Credit (Default)			
Repayment	x	x	
Collateral	x	x	
Interest Rate			
Prepayment	x	x	
Pipeline			x
Operations	x	x	
Liquidity			x

Source: Douglas Dunan, "The importance of the collection, dissemination of mortgage market data," *International Journal of Real Estate Finance*, May 2000.

For example, a simple primary market structure makes more sense than a secondary market system in small to medium-sized markets (where populations are one-fifth or less the size of the U.S. and consumer demand for mortgages is still low). There is limited room for a large number of lenders to compete, so when sufficient liquidity exists in the depository system, there is no need for secondary market institutions. Securitization may make more sense on a "one-off" basis for individual institutions, but there isn't enough consistent demand to support the development of the kinds of infrastructure that exists in the U.S. As Figure 5 indicates, a secondary market structure adds costs and risk to the overall system. From the standpoint of capital market investors, most countries are not able to generate deals of the size they are accustomed to from the more developed markets. This means that the risk is more concentrated, the economics more difficult to manage, and the credit enhancement needed will be greater. When the primary market capacity is not fully developed, the secondary market cannot be successful for the long term. Therefore, in the early stages of development, the costs and risks of secondary market development are often shared by the government and other risk-sharing entities.

Risk in the U.S. is highly diversifiable and shared by a number of different entities in the food chain. But the costs imbedded in this system are substantial, and as risks become more and more quantifiable (or as they can be diversified away with ever-larger portfolios), the trend has been away from a highly segmented system to a more consolidated one. This is good news for developing countries. It means that a new model for risk management is developing—one in which the risks themselves can be measured and mitigated by a few institutions, rather than distributing those risks among a network of separate entities (each of which adds its premium to the lending cost).

Mitigators for risk categories described above are (in order of application): (1) effective management controls; (2) access to reliable data; (3) availability of financial instruments for hedging; (4) capital reserves (for all parties to transactions); and as a last resort, (5) insurance. There is no mitigator for a legal infrastructure that substantially constrains the ability of a lender to conduct prudent operations. In a deep and fully developed market, states that maintain prohibitive legal restraints will receive less funding or higher cost funds for housing, or they will be limited in choices for types of products or types of homes.

UNIQUE RISKS OF EMERGING REAL ESTATE MARKETS

In addition to the specific factors related to real estate and mortgage lending, investors in developing and emerging markets must accept an overall higher level of risk, which is generally reflected in the sovereign rating. These factors will include the following:

Social/Economic Risk Factors

- Political instability
- Public agency corruption
- Lack of market-based economy
- Social factors that discourage private ownership
- Dominance of government in the sector
- Social unrest and violence
- Extremely prohibitive tax policies

Buyers of sovereign debt and rated foreign corporate debt have learned to price the risks, but real estate investments must take into account the full range of sovereign issues as well as the real estate-related factors described earlier.

The macro factors having the greatest impact on housing markets are those that reduce the borrower/buyer's financial capacity to buy or rent, the ability of lenders to offer affordable interest rates and loan terms, and the existence and capacity of domestic investors in mortgages or real estate. This means that the risks associated with real estate lending involve consumers, builders, bankers, capital market players, local employers and governments, as well as the national political and regulatory bodies.

Investors are looking for long-term trends, historical "worst case" benchmarks and the extent to which long-term stability can be expected. Specifically, they are the following:

- The overall legal and regulatory environment for banking, capital markets, property ownership and contracts—with implementation history.
- Government policies as they relate to housing (subsidies, taxes, government–funded lending programs) will affect the demand for housing, for loans and the ability of private sector entities to compete profitably.
- Historical volatility of domestic currency versus U.S. or other hard currencies.
- Inflation history and trends, along with real interest rates, and relationship of wage and price inflation.

One of the challenges of managing risk for long-term mortgages is precisely this difficulty in predicting long-term political and economic conditions in countries that have experienced recent turmoil. While there is an established base of investors in sovereign debt in emerging markets, there is little familiarity with mortgage debt unless it is guaranteed by the government. Private sector issues are difficult to place with domestic investors who do not understand the dynamics and risks of the real estate sector—or worse, where perception of the sector is that it represents unacceptable risk. A host-country government guarantee can attract a local investor, but may not be sufficient to attract foreign investors. The challenge will be to find (or develop) an investor base that is comfortable both with emerging markets debt and the unique characteristics of mortgage-related instruments. The most likely targets are so-called "social investors" who are sometimes willing to accept higher risk in order to fulfill a social mission, or local and regional investors who are familiar with the market and are comfortable with local currency issues with a "story" component. Venture funds and vulture funds are also possible sources, but the yields they require are not conducive to the development of affordable loan products for homebuyers.

In order to grow the investor base it is important to collect performance data that can be used as a benchmark for future issues from other sources. Unfortunately, many of the early issues in developing markets are privately placed or are a simple conversion of whole loans to security form. Details of these transactions are not published, nor are there any post-issue performance records kept or released. The rating agencies, both domestic and international, will certainly help in the performance tracking process. It will also be important to show private investors that it is in their best interest to disclose information about the characteristics, pricing and performance of their bonds in order to improve the overall liquidity of the market. The so-called "buy and hold" tendency of some institutional investors is another factor that limits sharing of information with the market.

The opportunities for OPIC in this arena are significant. OPIC can work with local companies to provide management capacity, government and aid agencies to ensure appropriate legal and regulatory framework, private risk-sharing entities to enhance their products, and investment bankers and rating agencies to structure creative financings. This will help develop a "case history" of transactions in emerging real estate markets that can be used as examples for others and also to seek correlations between different market experiences that might lead to a new set of criteria for assessing this unique type of investment. OPIC can also help to educate the investment community about real estate-related risk in emerging markets so that risk factors can be measured in the appropriate context of each market.

RISK MITIGATION IN EMERGING MARKETS

Despite the concerns listed in previous sections, the fact is that lending is taking place to some degree in virtually every country mentioned so far. Much of this activity is in the government housing banks, or other government subsidized programs, and much of it is outside the formal lending institutions. Regardless of where the lending takes place, it permits the collection of market intelligence and creative risk management tools that allow the primary market to function today and will ultimately support the creation of capital market capacity. The market may not be as liquid as one would like, nor are the interest rates as low as they should be, but the experience gained from existing intermediaries is invaluable to the future development of the markets. Foreign companies have played an important role in this development by collecting information, introducing new techniques and educating stakeholders in the market.

Most of the methods described below add intensity and cost to the management of the lending process. When this added cost is coupled with smaller loan amounts, it can be difficult to generate a profit on operations. This is a strong argument for the introduction of the latest technologies for loan origination and servicing, so that the "back office" processes can be streamlined as much as possible. It is also an argument for cooperation among lenders within the market—standardization of documents, credit data and even loan terms. It makes it more difficult for lenders to differentiate themselves, but if the process is more streamlined, lenders can handle more loans with the same resources—it increases the amount of business for everyone.

In addition to the methods discussed below, the full range of insurance products can be used, depending upon the market. Clearly, the creative use of life insurance products, along with the standard health, hazard and sometimes title insurance, will reduce the overall impact on borrowers of catastrophic events. There may also be loan level guarantees and subsidies from public and private entities. To the extent that these enhancements are available, they certainly reduce the overall riskiness of the loan, but the lender still retains the short-term cash flow risk of non-payment. And in some cases, the existence of such guarantees can create "moral hazard" risk with the borrowers.

The risk management tools being used more effectively in developing markets fall into five categories: insurance, operations management, product design, market coordination and credit underwriting strategies. These methods can be valuable for any lending entity, whether it is public or private.

Insurance

Lenders in Poland are using insurance as collateral to bridge the timing gap from loan closing to recordation of the property title and the mortgage claim. The term of the policy is six months to two years, to benefit the lender in the event there is a default during the unsecured period. In Mexico, one lender uses a life insurance policy as a hedge against negative amortization on a dual-indexed mortgage. The borrower pays the monthly premiums along with his mortgage, and can clearly see the value of the policy grow as compared to the principal balance on the mortgage. This helps to alleviate the borrower's concern that they are not accumulating equity in their property during the loan term. Other lenders simply require life insurance as additional collateral or to pay off the loan in the event of death of a primary wage earner. Self-funded (or employer-funded) default pools are also used to cover short-term late payments for groups of borrowers. The pool is controlled by the lender, but this type of method does present some management problems when loans pay off, etc.

Loan Management

The most effective management technique for first time homeowners or customers who are unaccustomed to making a monthly mortgage or rent payment is intensive customer contact. The Association of Sofoles in Mexico has maintained low delinquency rates by locating branches in neighborhoods close to customers that are open evenings and weekends, accepting partial payments, and keeping close touch with shaky borrowers. This also includes very personal support of borrowers who do go into irrecoverable default. This very close customer contact is supported with highly automated back-office operations.

Customer communication at all stages—saving, home selection and purchase, borrowing, loan, and property maintenance and collection—has provided good results in emerging markets. Continuous contact with the homeowner to show them how the value of their "asset" has improved relative to the loan balance is important to maintain motivation to repay. Working with local community groups also helps maintain commitment to the care of the neighborhood.

Other methods include automatic deduction of payments from wages or pension accounts and employer guarantees.

Product Design

The so-called "micro-loan" has been successful in countries where houses are self-built in stages, or where renovations are badly needed. In uncertain economic conditions, borrowers may not want to take long-term mortgages, and very short-term, unsecured loans are an alternative. Borrowers don't receive additional funds until they pay back the first loan, the amounts are never more than they can afford to pay with short-term wages, and collateral issues are not a problem. This can also build up the quality of the housing stock for future long-term loans that will mobilize the asset for other purposes. Loans can include payment "incentives" that give customers a premium or "points" for timely payment.

Dual-indexed, inflation-indexed and dollar-indexed loans are common, especially in inflationary economies. They present their own problems for loan management and default risk, depending upon purchasing power parity and property value trends.

Market Coordination

The Polish Banks Association has recently conducted its first study of banks' lending practices and portfolio conditions, such as delinquency rates. This is the first of a series of surveys that will help the banks change their operating methods to improve performance, but also provide a framework for cooperation on improvements to the market infrastructure. The Association of Sofoles in Mexico has cooperated on standardized documents, the collection of data for a prospective mortgage insurance program and policy coordination with their primary funder, FOVI. Banks in a number of countries have jointly established credit bureaus. Data collection on the property market and lending activity is one of the most important market coordination activities of these associations. By working with local partners, foreign companies can have a significant impact on addressing these issues. They are more likely to be heard when they have a vested interest in the market.

As mentioned earlier, banks in some markets have joined together to create second tier liquidity facilities in order to issue long-term bonds with mortgages purchased from members. (Brazil is a good example in the private sector. In other cases, the government has been the primary driver of these new institutions.) One of the greatest constraints on market development for securitization is the lack of domestic investor base for long-term instruments. The BHN responded to this situation by placing the higher risk, shorter-term tranches domestically, and selling the lower risk, longer tranches internationally. This local investor expertise needs to be shared among countries so that domestic local currency sources of funding can be developed to supplement international, hard currency sources. Local funding sources are arguably the most effective sources of long-term funding for mortgages, since they are less subject to international competition and economic stresses.

Credit Risk

When the value of the property cannot be clearly established or when foreclosure laws are weak, the importance of the credit of the borrower is paramount. Some countries have no credit reporting system, or they have a closed system with limited access. In others, the data simply does not exist, especially where people are unaccustomed to using credit or formal banking systems.
The solutions range from reliance on the "capacity" side of the credit equation (as compared to "willingness") to guarantees by the government. One of the best solutions is to set up a savings plan with the customer that simultaneously builds money for downpayment, a "habit" of making a monthly payment and a credit history for those payments. Excess collateral in the form of additional property or a restricted deposit account is sometimes required. While most credit verifications are done manually in new markets, some credit information is available through central bank agencies that collect data on bounced checks. Employers may be willing to provide subsidies for short-term default insurance.

The structure of the property market can have a significant impact on portfolio risk. Most developing countries have a limited resale market for houses. In some cases, virtually all sales are new construction, and it is common for a lender to work with one or two builders exclusively. This creates problems with diversification. The primary mitigator is to emphasize the quality and reputation of the builder, but also to maintain a reserve fund to ensure that the common areas are completed so that the homes retain their value. Another common issue in transition countries relates to condominium management and maintenance of the common areas. When there is no association to take control of this, a lender may need to set up a similar reserve fund for repairs, etc.

STRUCTURED FINANCE IN EMERGING MARKETS

In order to use credit enhancement tools at the loan or bond level, there must still be some assurance that the lender can manage the asset so that it performs according to expectations. The better the lender/issuer can document its capacity to manage the asset, the lower the cost of credit enhancement will be, and the better the pricing will be. In the case of the Banco Hipoticario National IV transaction, all of the market and operational fundamentals were in place, and, with political risk insurance the issue was rated to exceed the sovereign rating in Argentina. This deal is the "poster child" for developing market mortgage-backed securities. Yet the pricing was still 400 basis points over the U.S. Treasury rate, due to the lack of liquidity for the bonds and the general uncertainty associated with any developing market.

A proposed structure for a possible deal in the Dominican Republic (presented at the March 30, 2000 meeting by HUD and OPIC) was at the opposite end of the spectrum. Numerous fundamental weaknesses had to be addressed. As described, the deal would include substantial support from U.S. and Dominican government entities, the involvement of a private mortgage insurance company, and a spread account for foreign exchange risk and for credit risk. Controls on the origination and servicing of loans are imposed. Some data for the development of underwriting criteria were collected with surveys of local consumer payment habits.

The motivating force behind this complex proposal is the need to help a country devastated by natural disaster, but the model is an excellent indicator of what can be done to overcome insurmountable barriers in the market. The combination of mechanisms for mitigating and managing the risk in this situation creates interesting ideas for private sector transactions in the future. And, despite a high cost of all of these enhancements, there is expected to be a net reduction in the interest rate charged to the borrower, as compared to current market rates. This points to the fact that double digit spreads in emerging markets leave plenty of room for covering operating costs and, at the same time, improving affordability via more efficient management of those costs.

On the scale of market risk, most developing countries fall between Argentina and the Dominican Republic. By identifying the best practices locally in each country, finding the right partners, engaging government agencies productively, and adapting existing methods and tools to the local market, it is possible to be successful. For U.S. companies in particular, however, it is necessary to redefine the ranges of acceptable performance—such as tolerances for late payments, acceptance of alternative sources of data, customer contact methods, downpayment and income sources—in order to understand the riskiness of the business in the context of the local market.

The market leaders in the international housing finance industry can play an important role in collecting information based upon these new paradigms and then using that information to show investors how to understand and price the risk of developing mortgage markets. Recent innovations in multi-national securitizations in Europe, along with the Spanish practice of multi-originator MBS, have great significance and potential for developing markets. The goal for the industry should be to develop liquidity in this unique segment of the market—it is the only way that the funds can be mobilized in the quantities needed.

In order to generate liquidity, we must work together to build a global base of information about mortgages in emerging markets; we must develop efficiency in the local markets and work with international agencies to encourage the needed legal and regulatory changes. As local policy-makers see the successes of their peer countries around the world, they will be motivated to make the necessary changes. OPIC can play an important role in this process, because it provides direct support to the innovative solutions developed in each country.

ROLE FOR OPIC

The private-sector participants at the roundtable felt strongly that OPIC could play an important role in the development of the housing sector in emerging markets. The following ideas were derived for further discussion and development.

1. Since infrastructure and capacity building are key to building a foundation for development of long-term finance sources, it makes sense to design a product focused on the activities to support these types of investments. This could be a fairly inexpensive program that lays the groundwork for the private sector to create needed financing. This is especially true for servicing.

2. Use guarantees and insurance to support existing risk-sharing entities (e.g., reinsurance or co-insurance, different tranches targeted to different investor classes, etc.). This engages private sector involvement in the sector, leverages OPIC capacity in each country, familiarizes investors with emerging market risk and improves demand of future issues.

3. Use guarantees and insurance to target specific cash flow gaps in bond transactions, or specific tranches where risk elements are critical to the pricing or placement of the bonds.

4. Foreign exchange risk is of great concern with mortgage lending. While there are opportunities to make dollar loans that pass through dollar payments to investors, this merely moves the foreign exchange risk to the borrower, which is ultimately counter-productive (unless the borrowers receive their income in dollars).

5. The risk associated with conversion of foreign exchange risk is also a problem when a company is funding its operations in dollars, but receiving income in local currency. The OPIC insurance has definite value in this case.

6. Cooperation with governments to create credit guarantees that avoid moral hazard, but permit the government to take the appropriate share of risk at moderate cost. Moral hazard issues are managed at the operational level of the lenders and issuers.

7. Play a role similar to the Dominican Republic project, where OPIC is directly involved on the ground, to bring in private entities that will leave behind local expertise to sustain market development for the long-term.

8. Support the creation of a facility targeted to emerging market transactions, similar to what IFC is doing with its investments in housing finance entities. This provides incentives for countries to make necessary changes in infrastructure.

OPIC OBJECTIVES FOR HOUSING SECTOR

This document lists a range of objectives for OPIC's involvement globally in the housing industry. All of these objectives support OPIC's strategic goals (advancing development and free enterprise, helping American companies compete and encouraging best practices), and all of them are equally important and often interrelated. Often the most basic objectives, for example, the developmental benefits of housing stock, cannot be achieved without accomplishing one of the other objectives, for example, providing liquidity in the market through the securitization process and corresponding issuance of bonds or direct loans. This is because OPIC is trying to achieve its objectives in a market-based private sector environment—private investors will only enter the market if financial conditions are ripe, and they are most likely to start with the lowest risk transactions.

Developmental Benefits of Housing Stock

- Meeting the basic need for adequate shelter—affordable housing
- Increasing the sense of community that leads to lower crime and more stability
- Creating an economic engine for growth—housing construction and related services
- Providing employment for local population
- Providing tax revenues and other positive financial flows for the government

Building the Local Financial Infrastructure

- Involving local financial institutions in the construction loan, mortgage and securitization process furthers their depth and sophistication, helping the economy grow.
- Creating a cadre of local financial professionals with expertise that can be applied at other institutions over time.

Building the Local Physical Infrastructure

- Without a source of funding, the physical infrastructure necessary for housing will never be built—the roads, the water supply, the schools, the power. And yet, without customers, there is not market incentive to build them. To escape this cycle, anything that can be done to free up local capital and bring in fresh capital is highly developmental. Securitization is a key component of such a strategy.
- In many cases, the local physical infrastructure will be built with U.S. components or services or U.S. equity and, once built, it forms the base upon which further development in not only the housing sector but related and even unrelated sectors can flourish.

Increasing Liquidity in the Construction Loan and Mortgage Market

- Creation of a secondary mortgage market or securitization provides local banks with incentives to offer construction lending and a vehicle to sell their existing mortgages, allowing them to replenish their cash and make more mortgages available to others.
- A successful securitization will spawn additional lending in that institution that is more likely to reach down to a lower-income tier and provide longer and better terms.
- Other institutions will see profit potential and feel a need to remain competitive with their existing customers as well as gain new ones. This will result in more activity.
- Securitization allows a reliable record of data to be collected on mortgage defaults and recoveries. Consequently, in a few years, securitized deals from that country can be done with significantly reduced or without OPIC default support. This access to capital is important for the ban for the continuation of its mortgage program.
- Support for construction lending and securitization will showcase the prominence of the U.S. in the financial sector and will introduce a new class of investors to emerging market housing opportunities.

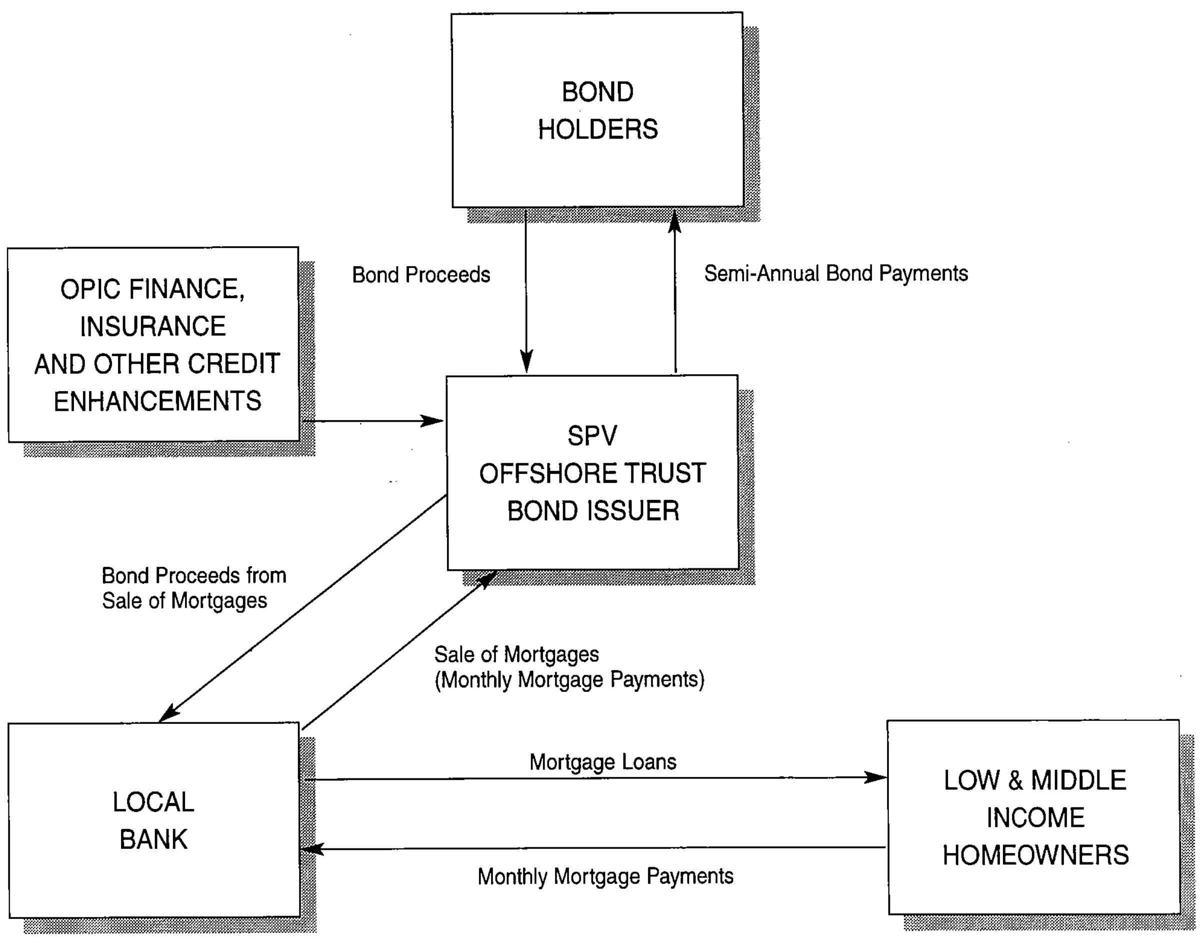
Transfer of Technology and Know-how

- In addition to building the housing stock, developing countries obtain an infusion of highly developmental technology and know-how. This technology transfer can form the base for future technological and system developments that are uniquely suited for the local market.

Positive U.S. Impacts: Helping an Important U.S. Industry Expand Globally

- Housing and housing finance have truly been the engines of growth in the U.S. economy. The U.S. housing industry has traditionally focused its attention solely on the U.S. domestic market. To sustain this positive impact as the U.S. market matures, it is critical that U.S. companies be in the forefront of the development of these markets overseas.
- Because U.S. companies in this sector have the greatest technology, systems and know-how in the world, developing countries seek out U.S. firms.
- The potential for a full range of hard and soft exports—from building components and supplies all the way to the services of title companies, loan servicers, mortgage processing software and technical advisory services—can mean very tangible benefits to the U.S. economy.

OPIC MODEL


BOND HOLDERS
OPIC FINANCE, INSURANCE AND OTHER CREDIT ENHANCEMENTS
Bond Proceeds
Semi-Annual Bond Payments
SPV OFFSHORE TRUST BOND ISSUER
Bond Proceeds from Sale of Mortgages
Sale of Mortgages (Monthly Mortgage Payments)
LOCAL BANK
Mortgage Loans
Monthly Mortgage Payments
LOW & MIDDLE INCOME HOMEOWNERS