APPROPRIATENESS OF A SECONDARY MORTGAGE MARKET FOR HOUSING MARKET DEVELOPMENT IN PERU

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List of Abbreviations

BBVA	Bank Continental BBVA-Group
BCP	Bank of Credit Via-BCP
COFIDE	Development Financial Corporation - Peru
CONASEV	National Supervisory Commission of Companies and Securities
ECLAC	United Nations' Economic Commission for Latin America and Caribbean
IDB	Inter-American Development Bank
MBS	Mortgage-backed Securities
MEF	Ministry of Economy and Finance - Peru
MF	Mivivienda Fund
PMM	Primary Mortgage Market
SBS	Superintendence of Banks, Insurances and Pension Funds - Peru
SMM	Secondary Mortgage Market

Summary

According to the United Nations there is a shortage of housing in the entire Latin America region, with 26 million housing units deemed inadequate and an additional 28 million units urgently required to relieve crowding and substandard conditions, meaning a total housing deficit of at least 54 million units in the area. Any economic and policy measures to address these needs will not only contribute to improved health in the housing market, but also benefit the economies of the region in many other ways as well.

Since 1999 the Peruvian government has started an enabling role in providing affordable low-income housing. By contrast to previous housing strategies failures, this time the benefits are tangible. The growing private sector participation (financial and construction) in the housing delivery activity has already showed possibilities of further development of the sector. The government-related "Mivivienda" National Mortgage Fund is leading the housing finance development in the country. The institution in conjunction with the Inter-American Development Bank provides mortgage funding to private financial intermediaries in a public-private sector alliance. At the current pace of activity, it is estimated that the funds will be completely used by the end of 2005. There is growing interest regarding how the scope of the fund could be transformed so as to continue to provide the mortgage market with an engine for growth.

Secondary Mortgage Market (SMM) mechanism is seen as a way to give sustainability to the system by tapping capital market funding to the housing sector. SMMs have showed successful implementations not only in developed countries like United States but also in Developing countries. SMMs offer a variety of benefits not only to the Housing Sector development but also to the National Economy. However, the path to a successful SMM demands the existence of a favorable political, economical, financial and legal environment. According to the literature a SMM development must be a natural response to a real demand from the financial sector for off-balance sheet mechanisms due to capital constraints in the lending system.

The Mortgage Market in Peru is currently facing serious problems that limit its development and prevent it to provide credit especially to low-income households. For most of them there are less costly and complex solutions than SMM. However the research showed that in a medium-term small and medium financial institutions will be capital constrained. SMM can alleviate this problem. Furthermore the Pension Reform has given long-term financing opportunities for housing finance. The research concluded that the conditions are not in place yet, nor is the Primary Mortgage Market strong enough to guarantee a significant volume of high-quality mortgages loans neither the institutional investors willing to take over lending risks. Furthermore there is a menace because political and economical uncertainty as the country is going to polls next year and a deep distrust in the juridical and judicial systems.

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Claudia Jill Ballon
September, 2005

Chapter 1 Introduction

1.1 Background

A vibrant housing sector is a sign of overall economic health. How people live reflects the standard of living in any nation (IDB, 2000). The reality of the housing sector in Peru is chaotic. Peru's housing deficit, according to the United Nations' Economic Commission for Latin America and Caribbean is estimated at 1.3 million housing units (74% quantitative deficit and 26% qualitative deficit) it is necessary to build 90,000 housing units annually to alleviate the housing problem of the population. Furthermore in Peru since 1960, waves of rural people took to the cities, producing a chaotic unplanned and depredated urban environment.

Since 1997 housing programs like "Mi Vivienda" and "Techo Propio", programs sponsored by the Peruvian government in cooperation with the private sector, are intended to boost the housing sector by mobilizing private investment in order to increase the supply of homes and benefit low-income groups. The role of the government must be to pursue a strategy of enabling and reforming the housing sector so that it can function effectively, equitably and efficiently as a market. Nowadays, a barrier to a well-functioning housing sector in developing countries is, undoubtedly, the poor function of their housing financial system. The development of the financial system is fundamental to the expansion of housing and constitutes a crucial element of housing policy. Some countries have already started to reform the housing sector focus on implementing modern financial tools that have been successful in other economies.

Since securitization was first popularized in the United States' mortgage markets, the tool has gained attention world wide. The role of securitization of housing loans in promoting secondary markets for mortgages has inspired developing countries to explore the use of this technique to increase funds available for housing finance, develop capital markets and reduce significant housing shortages. Developing countries have recognized that a vibrant secondary mortgage market can provide their housing finance systems and economies distinct benefits (Lea, 2000) However, it also implies that each government creates the environment according to its own conditions and financial system maturity to let it work. "This process is, indeed, not the result of a single component but rather of a well balanced, complex mix of economic, political, legal and financial ingredients designed to meet the characteristics of a particular financial system."(Pardo, 2000)

Since the past decade developing countries have investigated and some have embarked on the processes to develop a Secondary Mortgage Market (SMM) with different levels of success, some are either in the early stages or incipient (Rojas, 1999). In fact, not only governments have focussed their attention on the opportunities in enabling SMM, but also international development organizations namely The International Finance Corporation, the private sector financing arm of the World Bank Group, and the Inter American Development Bank have launched supporting programs in the third world to increase linkages between the capital markets and housing finance systems, particularly through the development of SMM. Many forums and workshops have gathered government officials, specialists and private sector actors from around the world to discuss issues and opportunities associated with the development of SMM in individual countries. Reports have documented experiences of different countries from those with mature and strong economies like in US and United Kingdom to those with fragile economies as in Latin America.

The common belief shared is the necessity to increase access to capital markets for the funding of housing, through the development of sustainable SMMs.

In the case of Peru, with a recently recovered economy and political stability, the government has also focussed its attention on the opportunities in enabling a SMM. However what is not carefully analyzed is the readiness of the Housing Market especially when the country is still in a process of improving their housing programs. A mature housing sector, accompanied by a well-functioning financial system, make it possible that supply and real demand met so to shape a primary mortgage market what as a result increases the chance to success when developing a SMM. The way to attract investors to participate in a SMM is by assuring that the stakeholders in the housing market are also playing actively their roles. The government as an enabler of the housing delivery, the private sector as producer and financer of housing, and both together work in building up the confidence and in increasing the affordability of house-buyers to participate in the housing market.

SMMs exist almost exclusively in economies with a strong, well-regulated formal housing sector (IDB, 2004). Despite the efforts of the Peruvian National Programs there are still failures in housing delivery. Evidence for that may be the mismatch between the number of mortgage credits given under the current saving-based subsidy programs between the capital Lima 79% and the rest of the country 21%.[1] The standpoint and research results of Peruvian public institutions can easily fail in overestimating the performance of the housing sector maybe in the desire of making international successful tools work in and improve the Peruvian situation. However there are evidences that can show the existence of still strong failures in the housing market. "A country's policy makers need to have a clear picture of how the market actually functions in meeting people's housing needs before they can attempt to develop innovative policies and programs that increase the efficiency of the market" (IDB, 2004) If the goal of the Peruvian government is to alleviate the existing housing deficit that affects particularly those of the poorest groups and reform its housing sector, is the housing market strong enough to encourage the implementation of modern financial tools that have been successful in other economies? And should encouragement of a SMM be part of any housing sector reform that may be required?

International experience has been documented showing different levels of success in developing a SMM when these countries' housing markets were in a healthy stage, but as this process requires a particular national approach there is still a missing research about the readiness of the Peruvian Housing Market to develop a SMM. Nevertheless some examples, such as the Chilean case, can offer lessons of interest in the region for future efforts taking as a starting point the level of performance of its housing market prior to the development of a SMM. Lessons that must be focus on the opportunities and also the weaknesses of its model, to avoid repeating the same mistakes.

1.2 Definition of the Problem

Like other emerging countries, Peru faces a critical housing deficit that affects particularly those of the poorest groups. The effort of the Housing Programs launched by the Peruvian Government through the Ministry of Housing, Construction and Sanitation and financially managed by The National Housing Fund Mivivienda has already placed US$ 461.54 million

[1] According with data from The National Fund MiVivienda in relation to the number of mortgage credits given under the subsidies programs "Techo Propio' and "Mivivienda" to September 2004. Lima city concentrates the 29% of the national population, 80% of liquidity and the major volume of housing demand and supply.

in mortgage credits. However, despite this growing acceptance of the housing programs by the house buyers, there is still a strong demand for housing finance. New mechanisms for raising funds may need to be developed as the Peruvian government has already devoted 60% of Mivivienda Fund resources.[2] In order to anticipate the exhaustion of the resources and to continue assisting all the income groups of the population, the government is looking to the opportunities of the development of a secondary mortgage market. However the desired readiness of the Housing Market could be being overestimated and may threaten the initial steps of the housing reform in Peru started in the year 2002.

1.3 Research Objectives

The research aims to:

- Explore what are the benefits, preconditions and reasons to develop a SMM.
- Underline the requirement of a well functioning Housing Market for the development of a SMM.
- Assess the characteristics and constraints of the current Peruvian Housing Market.
- Review some lessons learned of the performance of the Chilean SMM.
- Draw conclusions and recommendations regarding the readiness of the Peruvian Housing market for possible development of a SMM.

1.4 Description of the Research Area

The main focus of the research is the Peruvian Housing Market and its readiness to the development of a Secondary Mortgage Market as a modern mechanism to enhance the Peruvian Mortgage Finance System for the low and low- middle income groups. The specific sectors of research within the Housing Market are the income groups C and D[3] as its participation in the mortgage market is expected to increase in the coming years. The involvement of Mivivienda National Fund is also analyzed as the institution is the central part of the Mortgage Finance System in the country. The institution channels funds to financial institutions through three national housing programs. The roles of institutions of the public and private sector are analyzed in a probable SMM. The Chilean case is taken into consideration as an example of a well functioning SMM to point out some lessons to the Peruvian case.

1.5 Hypothesis

The central hypothesis of this study is that the Peruvian Housing Market requires a Secondary Mortgage Market to achieve further development. A SMM mechanism can alleviate the current constraints of the PMM and increase the low-income housing provision. Furthermore the development of a SMM can achieve the sustainability required by the Mortgage Finance System and function as an extension of the role of Mivivienda Fund in the housing finance provision to the socioeconomic sectors C and D.

1.6 Research Questions

Against the backdrop of the research hypothesis, the main research questions that this study addresses are intended to explore the rationale of SMM: the benefits, the preconditions and the reasons to develop the mechanism in the context of the Mortgage Market in Peru:

1. What can a SMM offer to a Primary Mortgage Market?

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[2] Data according to press releases of the National Housing Fund Mivivienda, available in www.vivenda.gob.pe

[3] See Table 9 in Annexes to a description of characteristics of socioeconomic groups in Lima city.

2. Under what conditions in the Primary Mortgage Market is the SMM appropriate?
3. Is the Primary Mortgage Market in Peru facing problems/constraints that a SMM can alleviate?

1.7 Research Methods

The study is an exploratory research which covers the following steps: a desk study to find out the principles of SMMs, a literature review in order to appraise the situation of the Housing Finance System in Peru and conducting interviews to key persons/representatives in a number of institutions in the public and private sector in Peru.

Step one For the analysis of the concepts and preconditions to the development of a SMM a review of existing literature, and especially reports of the World Bank, the Inter-American Development Bank and the Economic Commission for Latin America and the Caribbean – United Nations, was conducted.

Step Two. For the data collection of characteristics of the Housing Market and the Mortgage Finance System in Peru a review of existing data and statistics available in journals and reports made by specialized public and private institutions was conducted. For the characteristics and lessons learned from the Chilean experience a review of information in reports and articles from international organizations, especially those made by the Inter-American Development Bank and The World Bank, was conducted.

Step Three. The step engaged the interviews to key actors of both public and private institutions involved in the Housing and Financial Sector in Peru seeking for new insights about the main factors found during the desk study. The interviews were focus on the opinion of the representatives about the Macroeconomic Environment in Peru, the local Bond Market, the current constraints faced by the PMM, the Legal and Regulatory framework and finally about the initial steps towards the development of a SMM in Peru.

Chapter 2 Theoretical background

2.1 Introduction

Well-functioning financial markets are one of the most important determinants for economic development and growth. Relatively underdeveloped financial markets in Latin America and the Caribbean create bottlenecks that impede economic growth as well as the reduction of poverty in the region. Governments, regulators, policymakers and the private sector are becoming increasingly concerned with the urgency of these challenges and are undertaking actions to address them. (IDB, 2004)

Over the past 15 years, there has been a pronounced trend towards increasing the private sector role in financing housing, with governments adopting an enabling role. This trend is manifest in financial liberalization that has broken down artificial barriers between market segments and encouraged increased competition in the provision of housing finance. As a result, housing finance is no longer the province only of special schemes or entities supported by tax and regulatory preferences but it is increasingly a product offered by mainstream financial institutions (Diamond, 2000). Financial innovation has also played a role through the introduction of cheaper financial instruments and increased functional specialization with greater efficiency and improved risk management (Lea, 1994). Finally, the reform of pension plans and the growth in long-term funds for investment is opening up new opportunities for housing finance.

This chapter focuses on the rationale behind Secondary Mortgage as the most developed mechanism for Housing Finance. The chapter has eight sections. In the first section, the concept of a housing market is outlined. In the second section, an overview of the housing finance system is provided. In the fourth section the functioning of the Primary Mortgage Market is explained, together with a description of the phases of a Mortgage Loan's Life Cycle. In the fifth section an overview of the concept of SMM is given, to later on in the sixth section provide the types of SMM. In the seventh section the reasons to develop a SMM are outlined and an argument is introduced about whether SMM is the right answer to alleviate all the constraints of a given PMM. Finally the four pre-requisites to a SMM development are presented.

2.2 The Housing Market

"Creating a well functioning housing sector presents both one of the greatest challenges and one of the greatest opportunities for policy-makers in developing and develop countries"

World Bank, 1993

Developing countries urge for Housing Sectors that work efficiently to achieve its main objective in assisting and giving benefits to a greater number of low-income homeowners and stimulating the private sector participation in order to contribute to the national economy.

The goal for governments is to pursue a strategy of enabling and reforming the housing sector so that it can function effectively, equitably and efficiently as a market. The question is how should the housing sector perform to work as a market? The IDB explains "As a market, the housing sector involves the dynamic processes of buyers and sellers coming together to make property transactions. The property is priced as determined by its value, which in a mature housing market is estimated according to systematic criteria (e.g. prices of so-called comparable properties) by real estate appraisers in accordance with the basic market forces of the quantity of supply (i.e., what other similar properties are available) and demand (i.e., what other potential buyers are willing to pay for similar properties) Yet to function effectively as a market, the housing sector also depends on a framework of institutions (e.g., mortgage lenders) and ultimately on the undergirding strength of the overall financial system (e.g. transparent accounting practices)".

However as stated by the World Bank economical and social characteristics as well as government policies are factors that shape housing sectors to function effectively. The consequences of these factors especially in developing countries made the growth of housing markets extremely difficult. Hernando de Soto describes the social and economical situation in Latin America as follows "Housing development is a critical priority for the countries of Latin America, where urban populations are burgeoning and where a substantial portion of the population is characterized by low levels of income, high rates of unemployment or underemployment, and inadequate living conditions. For many of these areas, economic growth is slow, land tenure unclear and financial and capital market shallow". When it comes to the role of government policies the IDB states "Policy makers thus need to serve as leaders in developing the housing sector, but their leadership needs to involve facilitating, providing a vision, introducing appropriate legislation and regulation that let the market play its role, and exercising oversight. Government can act through laws, regulations, administrative practices, taxes and efficient and transparent subsidies-and adopt policies that define the fundamental of the housing market".

Furthermore the World Bank endorsed the concept of enabling strategies entitled "Housing: Enabling markets to work". It states that governments have seven broad instruments which together constitutes an enabling framework for housing. On the demand side: developing property rights, developing mortgage finance and rationalizing subsidies; in the supply side: providing infrastructure for residential land development, regulating land and housing development and organizing the building industry. These instruments are to be supported and guided by developing the institutional framework for managing the housing sector.

2.3 Housing Finance System

"In small emerging markets viable housing finance systems are crucial for poverty alleviation and financial sector development."

Jyrki Koskelo, International Finance Corporation's director for Global Financial Markets.

A Housing Finance System is an intermediary between savers and borrowers. According to Lea (1994) the aim of a housing finance system is to provide the funds which homebuyers need to purchase their home. This simple description has generated a broad array of institutional arrangements, ranging from contractual saving schemes, to depository institutions specializing in mortgage finance, to the issuance, sale and trading of mortgage-backed securities. All of these arrangements have been created with the same purpose in mind, to channel funds from savers to borrowers.

Dauskardt (2004) further indicates that the housing finance system is a sub-set of the financial system and needs to be related to it. From the point of view of the general financial system, houses are just one form of asset in which it can invest savings. Lea (1994) explains that a signal of financial sector development is the funding of owner-occupied housing by

formal financial institutions. These institutions can be private sector entities, which can be shareholder owned or mutual organizations or special circuits (i.e. government-backed institutions operating apart from the broader financial markets). As economies develop, provision of housing finance often moves away from extensive reliance on special circuits towards integration of housing finance into the broader financial markets.
Finally Dauskardt (2004) emphasizes that it should be always remembered that the housing finance system must be an effective part of the overall finance system. Unrealistic regulation of the housing finance markets will result in distortions of the financial markets leading to under investment in housing relative to the needs of the community or over investment, usually housing for only certain sections of the community.

The role of housing finance in the housing sector may be describe both at the level of individual households and at the level of the economy. Good policy must be based on an understanding of the role of housing finance from each of these perspectives. (World Bank, 1993).The World Bank explains both perspectives:

. Mortgage finance as a critical factor in generating housing demand
When housing finance is available, ready capital transforms the construction process. Professional developers become active more rapidly and the building industry becomes more efficient. Households can build and buy housing they could not otherwise afford. Citizens of developing countries view the ability to accelerate the construction or acquisition of housing as highly desirable. Mortgage loans permit households to distribute patterns of saving, investment and consumption in a more efficient way.

. Housing finance and financial development
"A well-functioning housing market and mortgage market will provide large positive externalities to the national economy" Bertrand, World Bank expert in housing finance
Housing finance is important to the financial system, therefore properly structured housing finance policies are important to the stability of the financial sector and thus to the stability of the economy. As development proceeds, financial institutions seek to diversify their portfolios to mitigate risk and to achieve a match in the term structure of assets and liabilities. Further development of the financial system leads to increasing maturities of loans for housing and sometimes to the development of housing finance institutions, some of which may constitute secondary markets in mortgage loans.

How does a housing finance system operate?
"The housing finance system operates in that part of the financial markets termed the 'capital market'. The capital market supply finance for longer term investments-finance over more than a year. Finance is provided in the form of securities – either loans, bonds (promises by organizations to pay a certain amount regularly over a given period of time) or equity (shares). Money markets supply finance over less than one year. (Dauskardt, 2004)

Why Mortgage Finance?
The price of a house is typically two to four times the annual income of the household. The expense, along with the fact that housing is a durable good providing a flow of services over time, means that most households seek long term loans to build or buy their own home. (Lea, Chiquier and Hassler, 2004) "Housing being a long-life asset requires finance from the capital market. This can be a problem as in many countries the capital markets are not well developed. Institutions do not exist or are weak. Regulation is inappropriate to encourage

saving and/or borrowing. The macro-economic climate may be inappropriate to long term investments (e.g. high inflation)" Another important factor, especially in developing economies, is that there is not a real housing demand, there is not the willingness to save neither the capacity, mostly because the low incomes of buyers. (Dauskardt, 2004)

2.4 The Primary Mortgage Market

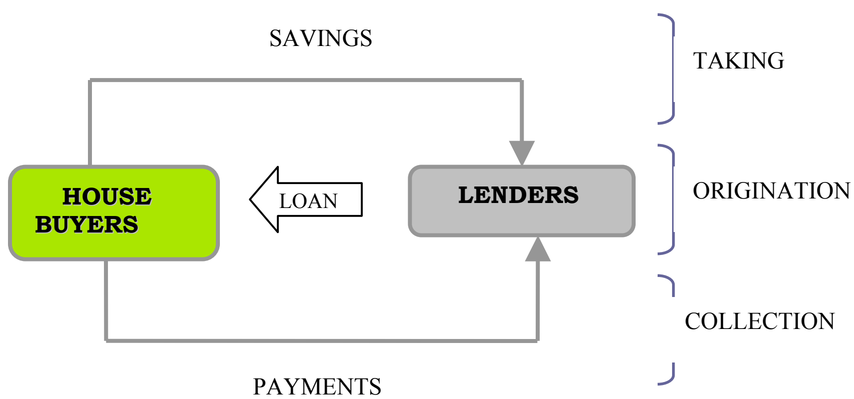
The Primary Market transaction is between the borrower and the lending institution. It involves a sequence of phases with different functions in the so called 'lending process'. (See Figure 1)

How does the Primary Mortgage Market work?

In order to explain how a mortgage market works, the IDB (2004) took the example of the United States mortgage market, the country is considered to have a rather homogeneous housing market. The following is the description of the US primary mortgage market:

The U.S. primary loan market involves agreements and transactions between **borrowers** and **lenders** to finance the purchase of residential real estate. Typically this process involves: (1) using the real estate as collateral for the loan and (2) an agreement to repay the loan in a defined period with a certain amount of principal and interest.

Figure 1: The Lending Process



Source: ECLAC, 2002

Phases of a Mortgage Loan's Life Cycle

1. Loan Origination

Loan origination is the period in a loan's cycle when it passes through a lender's pipeline as a potential residential mortgage loan. During this period the prospective borrower expresses an interest in acquiring a piece of real estate; explores financing opportunities; may become pre-approved for a loan. Also during this period, the lender may begin to collect a variety of information about the borrower and the property that will be needed in the underwriting process.

2. Loan Underwriting

During this period the lender evaluates the quality of the borrower and the property and makes a decision whether or not to lend money to this borrower, for this property. It involves the lender reviewing the appraisal of the property, evaluating the financial and employment records of the borrower, and verifying that the borrower, or someone tied to the transaction, has a financial stake in the property. Underwriting can be performed for a variety of scenarios: different loan maturity dates, interest rates, loan-to-value ratios, adjustment features, second loans, insurance options, and so on. The process may be standardized by a given lending organization, and it often involves the use of underwriting technology.

Lea emphasizes the importance of this period to the future development of a SMM, he mentions: "Investors must have confidence that lenders are properly judging risk and using a consistent set of criteria in evaluating loans. A degree of standardization is necessary to lower costs of due diligence[4] and allow investors, rating agencies and guarantors to quantify credit risk. The objectives of home mortgage underwriting are:

· To control the probability and cost of default losses.

· To ensure that all legal and financial requirements are completed satisfactorily on the property that serves as collateral for the mortgage so that the interests of the mortgage holder are protected.

· To meet requirements of third parties who have an interest in the safety of the mortgage including such groups as: regulators who are concerned about the safety and soundness of the lending institution, secondary market organizations who may be interested in purchasing the mortgage, and security rating services that may be called upon to provide a quality rating for a security that may include the mortgages as collateral.

Moreover, Lea includes in his paper a description made by Mahoney and Zorn (1997) about the three factors (called the "three Cs') in which mortgage underwriting is based.

Collateral

Each mortgage is backed by real property, whether an owner-occupied home or an investor-owned dwelling. An accurate assessment of the value of the property is fundamental to determining whether, in the event of borrower default, the lender could recoup enough from the sale of the home to cover losses. The amount of a borrower's owns funds invested in the property, also referred to as borrower equity, factors heavily into the lending decision. For years, mortgage research consistently has shown that a borrower with a significant financial stake in the property is less likely to default. The **appraisal** contains a detailed description of the property and three approaches to value: the cost (value of land as vacant), market (value of property based on sales of comparables) and income approaches (potential rent that could accrue to it).

Credit reporting

Mortgage lenders also rely on credit information compiled by national credit bureaus to ascertain a borrower's track record of handling credit. Credit bureaus can provide lenders with detailed credit files; they also can provide a credit bureau score, which summarizes the information into one number reflecting an individual's expected credit performance. Based on the statistical relationship between the information contained in individual credit files and actual repayment experience, credit bureau scores accurately summarize an individual's likelihood of repayment.

Capacity

Typically, capacity is evaluated using two ratios that express the percentage of an applicant's income needed to cover monthly debt obligations, including the mortgage payment. The

[4] The process of investigation, performed by investors, into the details of a potential investment, such as an examination of operations and management and the verification of material facts.

housing-debt-to-income ratio, or "front-end" ratio, focuses on housing related payments and is calculated as the ratio between monthly mortgage payments (including taxes and insurance) and gross monthly income. Underwriting guidelines generally recommend front-end ratios of up to 28 percent.

3. Loan closing and funding

During this period the property transaction is settled (i.e. made final through the signing of contracts and exchanges of funds) The borrower and lender provide the agreed-upon monies to the seller of the property, title is transferred to the borrower (now the owner) the borrower formalizes the agreement with the lender to repay the loan, the lender registers a lien on the property in the event of default, and public records of landownership are modified to reflect the new ownership.

4. Loan Servicing and Loss Mitigation

During this period payments are made from the borrower to the lender. Typically, the servicer-a third party, such as a bank or a specialized mortgage servicing firm-processes monthly payments of principal, interest, taxes and property insurance. The servicer receives a fee. In the United States and many other countries with mature mortgage markets, servicing is the only step in the primary market chain of transactions that is profitable to the originator or lender.

5. Asset disposition and problem loan Management

In the event that the borrower defaults on the mortgage payment, the servicer is frequently responsible for working with the borrower to repay the amount owed or to restructure the loan. The lender may take legal action, which could include evicting the borrower and auctioning or selling the property.

The quality of the lending process, with a diversity of actors and institutions that manage different risk is a characteristic of a Secondary Mortgage Market. The difference between the traditional model and the modern process is explained by Lea (2000):

Table 1: Functional Components of Secondary Mortgage Market Developments

Functional Components	Origination	Servicing	Management Risk	Funding
Participants	• Mortgage brokers • Mortgage banks • Depositories	• Mortgage bank • Depository	• Agency • Private	• Agency • Pension fund • Insurance company • Depository • Mutual fund • Foreign
Functions	• Marketing • Processing • Underwriting • Closing • Warehousing • Pipeline Risk Management	• Payment processing • Collections • Foreclosure	• Risk Management	• Funding • Cash flow • Risk Management

Source: Michael J. Lea (2000)

2.5 The Secondary Mortgage Market

The most developed model of Housing Finance is Secondary Mortgage Markets because the connection it generates between housing finance and the capital markets. The development of this system around the world is increasingly being promoted as a way to increase access to funds for housing, to enhance risk management in mortgage loan processes and develop capital market.
“The ‘secondary mortgage market’ is so named because mortgage loans are packaged, marketed and sold for a second time – the primary market transaction is between the borrower and lending institution, and the secondary market transaction is between the lending institution and the investor(s). Thus the secondary mortgage market includes all the activities carried out by the institutions and individuals involved in the process of buying and selling pre-existing (or closed) residential real estate loans from the institutions that have originated them”. (IDB, 2004)
“Although this activity has been around for a long time, it has greatly expanded in recent years, reflecting the creation of new and specialized institutions and innovations in technology and security design”. (Pfeiffer,2003)
“A SMM separates the act of making mortgage loans (which can still be carried out by banks) from the act of holding mortgage loans (which can be carried out more effectively by capital market investors.)” (IDB, 2004)

2.6 Types of Secondary Mortgage Market

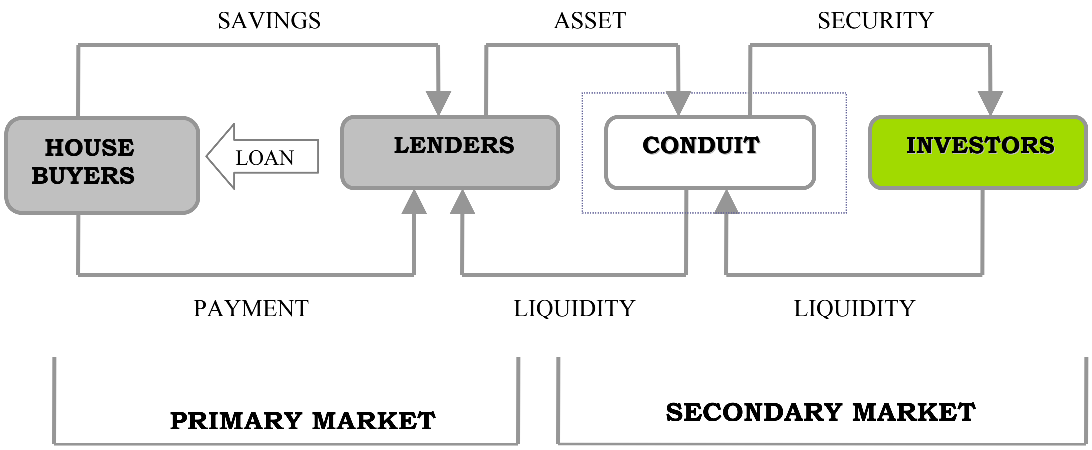
Though SMM are typically identified with mortgage-backed securities[5], there are other forms of secondary markets: (Lea, 2000)

1. Mortgage-backed Securities
Securities that have payments to investors tied to the cash flows of an underlying pool of mortgages
This is an **“off-balance sheet” financial instrument** (mortgages are removed from the bank’s balance sheet and placed in a separate vehicle). “In the case of bank mortgage loans, securitization frees up bank balance sheets and allows them to continue lending”. Thus the bank does not typically hold the financial risk of the mortgages, and investors are not exposed to the corporate risk of the bank. Therefore, these securities require more advanced rating and monitoring systems to protect the interest of investors. They can be issued directly by lenders or through specialized institutions, know as **Conduits,** which purchase mortgage loans and issue mortgage securities. The simplest mortgage -backed security is the **pass-through security**, in which investors receive pro-rata shares of the cash flows-principal scheduled and prepayments and interest-from the mortgage pool. More complex derivative securities are frequently created from the **pass-throughs MSB**. The cash flows of the loans and securities are thus matched with the balance of the security equaling the outstanding loan balance.
A mortgage pass-through security represents a sale of the underlying assets. (Although the Danish and Chilean mortgage bonds are pass-through securities they are not a sale of assets, but obligations of the issuing bank.) The issuer may sell the mortgage assets to a **Special**

[5] An investment instrument, other than an insurance policy or fixed annuity, issued by a corporation, government, or other organization which offers evidence of debt or equity. A security backed by a pool of mortgages is called Mortgage-backed security.

Purpose Vehicle[6] (SPV) **or Trust**, which then issues the securities, or to a **Conduit Institution**, which purchases mortgage loans from a number of lenders, pools the loans, and issues the securities. "The SPV issues liabilities that represent an ownership stake in the pool of underlying assets and hence the right to receive the payments is passed through to the SPV by the originating entity. It can be further backed by government or private insurance." (Latin American Shadow Financial Regulatory Committee, 2005)

Figure 2: The Mortgage Market



Source: ECLAC (2002)

2. Whole Loan Sales

Although not a security, the sale of whole loans can be an important way for primary lenders to raise funds and manage risk. Whole loan sales involve the sale of mortgages, either individually or more commonly in pools, to other lenders or investors. Examples of whole loan sales include the sale of pools in their entirety, participation or recourse[7] basis, by savings and loan institutions in the US in the 1960s and 1970s. Whole loans may be sold through brokers, relationships (e.g., the seller delivers loans on a regular basis to the buyer) or wholesalers who aggregate loans from a variety of sources and sell them to investors. In many countries, purely wholesale institutions exist to facilitate the flow of funds to primary mortgage market (figure). These institutions, referred to as **Liquidity, Rediscounting or Secondary Mortgage Facilities**, are typically government owned or supported. They issue general obligation bonds in the capital markets and use the proceeds to refinance the portfolios of primary market lenders.

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[6] A Special Purpose Vehicle is an organization constructed with a limited purpose or life. Frequently, these Special Purpose Vehicles serve as conduits or pass through organizations or corporations. In relation to securitization, it means the entity which would hold the legal rights over the assets transferred by the originator.

[7] Recourse is the ability of an investor/ purchaser to seek payment against an investment to the originator of the investment. For example, in a securitization transaction, the right of the investor to seek payment from the originator or in case of a negotiable instrument, the right to seek payment from the endorser of the instrument.

3. Mortgage Bonds (bonos hipotecarios, letras hipotecarias, cedulas hipotecarias):
The issuer of these securities – a commercial, universal or mortgage bank -- **holds mortgages as assets on its balance sheet.** Investors, who hold mortgage bonds that represent liabilities of the issuer, hold a priority claim over the collateral in the event of bankruptcy. In some cases, these bonds are inflation-indexed. They are normally traded on exchanges and – provided that banks are solvent – they are suitable for pension fund investment. The Chilean experience shows that this has worked efficiently.
While not a true secondary market (because there is no sale of assets) are an important vehicle for accessing the capital markets in a number of countries.
The issuer may be a specialized mortgage bank, as is the case in Denmark, Germany and Sweden, a commercial bank as is the case of **Chile**, Czech Republic or Spain, or a centralized issuer as is the case of France or Switzerland. The collateral pool may consist of all of the qualified assets of the issuer, as is the case with the German Pfandbriefe, a specified pool as in the case of US savings and loans and the recent issue by Halifax Bank of Scotland in the UK, or individual loans as in Chile and Denmark (the individual bonds are aggregated into large series).

Difference between Mortgage Bond and Mortgage-backed Securities
In one of his studies, Lea establishes that the forms of SMM are only two, excluding the Mortgages Bonds. Other authors made the distinction between SMM and Mortgage Bond Markets indicating that the main difference is that issuers of mortgage bonds do hold the bonds as assets in their balance sheet. According to the IDB "Mortgage-backed bonds are similar to mortgages backed securities except that MBB are issued by the mortgage originator and stay on the originator's book. MBS are issued by a Special-Purpose Vehicle as off-balance-sheet instrument".

The IDB also adds another option: "**Collateralized borrowing**. Some lenders may not wish to sell their loans, but instead want to leverage their residential mortgage loans assets to secure financing. They may be able to hold or pledge the mortgage loans as collateral to receive a line of credit"

Concerning to the Traditional Model or so called **Deposit Taking System** and its alternative, the **Mortgage Bank System**, Lea explains: "The Traditional model of formal financial sector finance of housing is the Depository Taking system. In this model, an institution gathers savings from households and enterprises and makes loans to homebuyers. (…) The United Kingdom is an example of a country which relies largely on depository institutions for housing finance. Depository institutions are prominent in Latin American housing finance. An alternative to the Depository Institution model is the Mortgage Bank System. In such systems, specialized institutions (mortgage banks) originate and service portfolios of mortgage loans which are funded by securities they issue. The securities are general obligations of the mortgage bank and are typically purchased by institutions with long term sources of funds"

Actors of a SMM
Like in all markets there is a demand and supply side. That is why the importance of an effective primary market that offers the volume of high-quality of mortgage loans to be titularized and the appetitive of investors in the supply side to buy them.

"The lead actors in the secondary mortgage market are the lender and purchaser of the mortgage loans, or the investor in the security. The supporting cast includes the institutions that facilitate the transaction by providing products and services (legal and regulatory entities, clearing houses, bond rating agencies, insurance companies, services) Secondary mortgage markets exist almost exclusively in economies with a strong, well regulated formal housing sector. This is because the secondary market is information-intensive and dependent upon law. Except in defined situations, the investor does not interact with the real estate asset; instead, the investor simply is guaranteed a legally defined stream of income, ad must rely on another financial institution for payments and reporting" (IDB, 2004)
The expected investors in the SMM are pension funds, insurance companies, mutual funds and banks. However, pension funds are seen in general as the major actors because their necessity to invest in long-term assets.

2.7 Reasons to develop a Secondary Mortgage Market

What can Secondary Mortgage Markets offer?
Mortgage securities can perform a number of valuable functions in emerging economies. Their introduction and use can improve housing affordability, increase the flow of funds to the housing sector and better allocate the risks inherent in housing finance. (Lea, Chiquier, and Hassler, 2004) In the paper "Mortgage securities to Developing countries", written by these three financial experts, it is highlighted the various advantages that the use of MBS can offer. In order to give an entire picture for this research, here they have been grouped in 3 main issues: availability of funds, risk management and market competitiveness.

- **It can expand the availability of Funds for Housing**

Mortgage securities can tap new funds for housing. The creation of a SMM can bring new investors into the market, thus expanding the supply of funds for housing. Institutional investors with long term liabilities are potentially important sources of funds for housing as they can manage the liquidity risk of housing loans more effectively than short-funded depository institutions. An increase in the supply of funds can, all other things equal, reduce the relative cost of mortgage finance and improve accessibility to finance by the population.

- **It can lower the cost of mortgage credit through a more efficient allocation of risk.**

For example, a Secondary Mortgage Facility (SMF) may improve **interest rate risk** allocation by matching long term mortgages with long term sources of funds.[8] A secondary market may lower **credit risk** through nationwide diversification. **Liquidity risk** may be reduced through expansion of funding opportunities for primary lenders.
Lea, in one of his papers, further explains the implications about the **liquidity risk** Funding through the capital markets through issuance of mortgage securities can increase the liquidity of mortgages, thereby reducing the risk for originators and the risk premium charged by lenders. The ability to dispose of an asset within a reasonable time and value, a crucial factor to mobilize long term resources, is a service that capital markets, as opposed to banking systems, can provide. A frequently expressed reluctance of primary market financial institutions to offer housing loans is a lack of long-term funds. Access to the long term funds

[8] Interest rate risk arising from the early repayment of mortgages is called prepayment risk. Specialized securities (derivatives) have been created in the US to allocate prepayment risk more efficiently. A SMF may be exposed to significant prepayment risk if it relies on straight debt without prepayment options to purchase mortgages. However, it may be in a better position than individual lenders are to hire experts to manage this risk.

mobilized by institutional investors can reduce the liquidity risk of making long term housing loans, increasing their affordability and improving the access to funds for house buyers.

Box 1: Do Secondary Mortgage Markets actually help borrowers?

True loan sales involve transaction costs, which ultimately must be borne by borrowers. But these transactions costs are more than offset by the greater competition and reductions in other mortgage costs that result from secondary markets.

Secondary markets reduce mortgage interest rates in several ways. First, they increase competition by encouraging the development of a new industry of loan originators. Called different names in different countries (in the US they are called "mortgage companies" or "mortgage banks"), they all have in common that they require little capital and tend to be aggressive competitors

Absent secondary markets, the only institutions originating mortgage loans are those with the capacity to hold them permanently, termed "portfolio lenders". In small communities especially, borrowers may be at the mercy of one or a few local banks or savings and loan associations. The entry of mortgage companies who can sell into the secondary market breaks up these local fiefdoms, much to the benefit of borrowers.

Secondary markets also increase efficiency by encouraging a specialization of lending functions that reduces costs. Portfolio lenders typically do everything connected to originating and servicing loans, even though they may do some things quite inefficiently. Secondary markets, in contrast, create pressures to break functions apart and price them separately, and this imposes a discipline on mortgage companies to concentrate on what they do best.

In addition, conversion of mortgages into mortgage-backed securities permits a better distribution of the risk of holding fixed-rate mortgages. Historically, depository institutions were well positioned to originate mortgage loans but if the loans were long-term and had fixed-rates, they were not well positioned to hold them because their deposits were short-term. Many pension funds, in contrast, were well positioned to hold long-term investments but were not equipped to originate and service mortgages. The development of markets in mortgage-backed securities eliminated this impasse.

Mortgage-backed securities also are "liquid" while mortgages themselves are not. This means that in most cases mortgage-backed securities can be sold for full value within the day whereas selling the same amount of mortgages would take 4 to 8 weeks. Because most investors value liquidity and are willing to accept a lower yield to get it, converting illiquid mortgages to liquid securities puts downward pressure on the rates charged to borrowers.

In addition to generating downward pressures on mortgage interest costs, secondary markets also tend to eliminate regional rate differences.

Secondary markets have also vastly expanded the size of the borrower pool. Portfolio lenders generally restrict their loans to "A-quality" borrowers, in large part because of regulatory concerns about their safety and soundness. Secondary markets, in contrast, can access investors who are prepared to hold risky loans if the price is right. The result has been the emergence of the so-called "subprime market" and a new category of borrowers from institutions -- borrowers who previously had recourse only to family, friends, home sellers and loan sharks.

Source: Jack Guttentag, 2003.

- **It can ncrease competition in Primary Markets**

The development of capital market funding sources frees lenders from having to develop expensive retail funding sources (e.g., branch networks) to mobilize funds. Securitization for example can allow small, thinly capitalized lenders who specialize in mortgage origination and servicing to enter the market. These lenders can increase competition in the market and can lower margins and introduce product and technology innovation into the market.

Increasing competition and specialization can in turn **increase efficiency** in the housing finance system. Greater specialization can lead to cost-savings and reduce spreads. The phenomenon of unbundling has been associated with development of secondary mortgage markets. As the functional components of the mortgage process are unbundled, specialists emerge and obtain market share through scale economies in processing, access to information and technology and risk management.

An additional virtue of capital market funding is that it can engender **the lengthening of the maturity** of loans. Lenders with short-term liabilities often offer shorter term mortgages. Origination of long-term housing loans can improve affordability particularly in low interest rate environments.

A SMF can reduce the **transaction costs** of mortgage lending and investment through standardization of mortgage loan documentation, underwriting, servicing and creation of standardized securities. Expansion of the market and functional specialization can reduce costs through economies of scale. By expanding the funding sources for mortgages, a secondary market improves competition, which can reduce cost for participants and borrowers.
Lea makes an important point about some of the benefits of a SMM: "There is of course an element of which comes first, the chicken or the egg. Some will argue that creating a secondary market is necessary to provide the proper incentives and guidelines for standardization, processing and management in the primary market. A well-developed secondary market can indeed have these benefits. But there are clearly minimum requirements regarding the economy, instrument and institutions that must be met before a viable secondary market can be created.

However all the benefits that a SMM can offer, it does not mean that SMM is the answer for all the problems that arise in a housing finance system. In this sense Lea analyzes the possible constraints of housing finance systems in developing countries and whether a SMM is the best system offered to alleviate them.

Is the development of a SMM the best solution to alleviate all the housing finance constraints?
Developing countries characterized by small mortgage markets have great demands for increasing the provision of credit for important social and investment needs. According to Lea "one of the major roles for governments is to identify and prioritize the principal problems". Lea explains why primary market lenders may not lend, here they have been group according to different solutions given to each set:

I. Credit risk, high costs and problems with executing collaterals.
Mortgages are obligations of individuals, secured by property in a particular location; assessment of credit risk can be costly and time consuming. The ability of the lender to foreclose on loans in default in a reasonable time period with reasonable costs is a major determinant of credit risk.
If default risks arise, **government provision of mortgage insurance** may stimulate more lending. If the difficulties are due to the costs of underwriting loans a **private mortgage insurance** system may suffice.

Insurance or security guarantees remove concern over the lack of standardization in or information about mortgages for institutional investors.

II. Liquidity risk and interest rate risk.
Mortgages are long term assets (typically 15 to 30 years maturity although with amortization and early repayment their duration are frequently 5 to 7 years) Lenders with primarily short term liabilities are subject to significant liquidity risk if they allocate a substantial portion of their assets to mortgages. Also mortgage borrowers may demand fixed rate loans. Lenders with primarily short term liabilities are subject to considerable interest rate risk if they invest in such loans.
A **Secondary Mortgage Facility** (or Liquidity facility) is appropriate if primary market lenders have poor access to the broader capital markets or concerns exist about their ability to manage interest rate or liquidity risk. Security issuance is a more efficient way of raising funds than individual loan sales. If the institution is well capitalized (or supported by the government) it can achieve a higher credit rating on and a lower cost funding for its activities than private issuers. A centralized institution may be able to issue securities with lower transaction costs. Issuance of a large volume of standardized securities can result in greater liquidity than issues by individual institutions.

III. Undercapitalized lenders.
If a lender is capital constrained it can not expand its balance sheet significantly without being able to sell the loans it originates. The concept of capital adequacy is fundamentally risk based. If mortgages are viewed as more risky than other forms of investment (e.g. government securities) the lender may choose to invest in lower risk assets which do not use significant amounts of scarce capital.
Secondary Mortgage Markets have been created when true **off-balance sheet** financing is desired. Transfer of ownership enables lenders with relative little capital to participate in the mortgage market. Although MBS can be issued by private sector concerns, they are complex, unique and costly to issue. In addition, the issuing entity still must confront the problems associated with introducing a new security and assuring investors of its liquidity and credit worthiness.
Establishing a **Conduit** can facilitate creation of a successful SMM. A conduit can work with mortgage originators and servicers to standardize mortgage design, documentation and underwriting, ultimately lowering the transaction costs of mortgage lending. Also it can expand the investor base for mortgages, increasing the availability of funds and management of risks. It can do so through credit enhancement, tailoring securities to meet the needs of investors and providing a centralized source of standardized securities.

IV. State subsidized competitors
If one or more institutions in the primary market have preferential access to low cost sources (government subsidized) of funds, they can crowd out primary lenders from the market by offering lower rates and/or better terms.

2.8 Pre-requisites to a Secondary Mortgage Market

I. There must be Macroeconomic Stability
According to Lea (1998) the state of development of a country mortgage market will depend in large part upon de degree of macroeconomic stability and past government policies affecting housing finance. Macro economic stability is very important for several reasons:

- Create major effect on the demand for mortgages, in volatile economies high rates of inflation and nominal interest rates reduce the affordability of conventional mortgage. The use of fixed rate mortgage in an inflationary environment creates a tilt effect in which the real payments on the mortgages are much greater in its early years. Variable rate mortgages can reduce the tilt effect but they subject borrowers to potential shock and affordability problems. Indexed mortgages can improve affordability but are complex for both borrowers and lenders. The affordability improvement of any instrument may not be sufficient to stimulate demand if volatile creates uncertainty and short term investments horizons for borrowers.

- Increase of supply of funds and improve of characteristics of mortgages offered, in volatile macro economic environments lenders are reluctant to offer long-term loans. This may lead them not to offer mortgages or only offer short maturity loans that in run are less affordable for consumers. Pipeline risk is also much higher in a volatile market.

- Facilitate investors forecasting, in volatile macro economic environments difficulties of forecasting inflation and interest rates make investors, like lenders, prefer short term assets. Lenders must be able to forecast cash flows with a tolerate level of variance in order to price and evaluate the risk of their investments.

II. There must be a functioning Capital Market

Capital Markets should be analyzed from two points of view: the infrastructure of the system and the appetite of investors for the financial instrument:

Bond Market Preparedness
Lea determines that a successful secondary market depends on an adequately developed bond market, which includes:

- Benchmark yields (and yield curve).
- Market makers to provide liquidity.
- A regulatory body, to provide security issues.
- Rating agencies, to help investors understand the characteristics of the instruments and their relative creditworthiness.

Attractiveness for mortgage-backed securities
In a World Bank paper made by Lea, Chiquier and Hassler it is also emphasizes that there must be an Investors' appetite for the financial instrument. Ultimately, the attractiveness of mortgages and MBS depends on the ability of investors to understand the instruments and quantify their risk and return potential. Because of the importance of data in the assessment of risk, the demands on servicers (and conduits) are potentially great.
The characteristics of the mortgage instrument to be recognized as an attractive instrument will be further analyzed in the next section.

III. There must be a suitable Legal, tax and regulatory framework

A successful housing finance system is premised on a well developed legal and regulatory structure. The IDB (2004) indicates that there must be regulation and incentives that reduce investors' risk.
Lea gives the following legal and regulatory characteristics which are important for development of the system:

- Enforceable security interest. This depends on the clarity of the land title, the ability to establish priority of liens on the collateral (an effective title and lien registration system), and the ability to enforce foreclosure and repossession over a reasonable time period.

- Transferable security interest. For transactions involving asset sale or pledging (as collateral), security interests must be transferable and investors must have the ability to perfect their security interest after transfer. Furthermore, the transfer of interest must be at relatively low cost. Transfer and recordation fees should be nominal and borrowers should not have to approve the transfer.

- Bankruptcy protection. An additional legal concern for investors is the solvency of the seller, servicer, or other third parties (such as credit enhancers or trustees) and their rights in the event of bankruptcy. Investor priority rights must be protected and they should have the right to pull or transfer servicing.

- Supportive regulatory environment. Capital requirements on mortgages and mortgage-backed securities must reflect the relative risks and ensure a level playing field. Proper accounting standards (including the requirements for off-balance sheet or sale treatment) should exist. The ability to sell assets in a tax-efficient manner (avoiding double taxation or withholding taxes) is an important consideration.

IV. There must be a functioning Primary Market

The existence of an effective Primary mortgage market that generates adequate volumes of high-quality and standardized mortgage loans is vital. The role of the primary market is to generate a considerable amount of high quality loans that will generate securities which must be marketable (security that probably could be converted into cash quickly and easily).and -for that reason -attractive to investors. A second issue is to generate standard loans that will be easy to pool and then be securitized in the SMM. According to Lea: "The starting place for the discussion of the requirements for a successful SMM is the primary mortgage market and within that the mortgage instrument itself"

Characteristics of the Mortgage Instrument

- **Volume of loans**

"The mortgage market must be at a sufficient stage of development to produce a significant volume of loans to justify the up-front costs of developing the SMM structure." (Lea, 2000)
A significant volume of loans will allow the periodically issuing of securities that will contribute to achieve economies of scale. Most of the costs of securitization as fixed costs.
"If borrowers have an appetite for mortgage loans but are not able to get financing because banks do not have the cash to lend, the creation of a secondary market may significantly stimulate lending and housing production. The creation of a secondary market will actually create more funding; more funding creates more demand by borrowers; and more demand creates more supply of mortgage loans for sale on a secondary market. If, however, the

underlying fundamentals are not intact–willing, interested and qualifiable borrowers do not exist; there is a limited housing stock for sale; or the creation of a secondary market actually increases costs to borrowers (ratter than lowering them) –then discussions about creating a SMM are probably premature" (IDB, 2004)

Furthermore in the demand side it is critical not only the willingness of the borrowers to get a loan but also the affordability of them to purchase a house. "A rough measure of this concept is the 'price to income' ratio which compares the average price of a house with the yearly income of the household. The ratio generally varies from 2.5 to 5.0. When a household have access to credit, a better ratio to consider is the 'repayment income ratio' or the 'effort ratio'- the ratio of the monthly payment amount to the gross monthly income to the borrower. It generally lies within a range of ¼ to ½. (Dauskardt, 2004)
"When the 'price to income' ratio goes up it is almost impossible to develop a deep mortgage finance system because people can not afford a house" (Renaud, 2004)

- **High-quality loans**

Mortgages must be attractive investments. The interest rates on the mortgages must be market determined and provide investors with a positive, real risk-adjusted rate of return[9]. Thus the mortgage rate must be sufficient to cover the investor's marginal funding cost (both debt and equity), the risk of mortgage investment (i.e., credit, interest rate risk and liquidity risk) and the administrative cost of servicing mortgages and MBS. (Lea, 1999)
Marketable MBS require loans which origination and servicing is done with the same criteria, with low morosity rate and low rate to execute collateral, with predictable cash flow repayments. If the returns of loans are not predictable, the investors will demand high risk premia and the rating agencies a better credit enhancement, which in turn will make expensive (and maybe no viable) to develop a SMM. (ECLAC, 2002)

Standardized loans
From an operational point of view, the standardization of loans is a key element. According to Lea in order to reduce the transaction costs of evaluating mortgage loans and the processing costs of issuing and administering MBS, the characteristics (e.g. rate adjustment, amortization schedule, term) of the mortgages should be uniform. In addition, standardized **documentation** must be available for all loans. Typical documentation includes the mortgage note (document describing the mortgage obligation) and deed (document conveying ownership to lender as security for the repayment of the mortgage) the application property appraisal and borrower credit report." Lea also made comments on the importance of a consistent and comprehensive underwriting process. The underwriting process as part of a loan life cycle was already widely explained. Also it was already explained the assessment of the ability of borrowers to pay using the debt-to-income rate. Lea adds "Willingness to pay is based on the downpayment (borrower investment on the property) and credit history.
The **servicing** of mortgages is a critical component of a viable secondary mortgage market. The collection of mortgage payments and the periodic remittances of these payments to the investor (or conduit) is the major task of servicers (whether they are originators or third parties). In addition, servicers are the primary repository of information on the mortgage loans. Thus, they must maintain accurate and up-to-date information on mortgages balances, status and history and provide timely reports to investors.

[9] Real rate of return: rate of return after adjusting by inflation. Return: The annual return on an investment, expressed as a percentage of the total amount invested.

2.9 Conclusions

The chapter reviewed the role of housing finance in the housing sector at both levels, of the individual household and of the economy. Policy Makers have the responsibility to improve the housing provision as an aspect of social welfare (household's level), and are in the position to view the linkages between the housing sector and the economic as a whole. It was explored that Mortgage Finance offers benefits to the housing sector and provide large positive externalities to the economy.

The most developed model of Housing Finance is Secondary Mortgage Markets because the connection it generates between housing finance and the capital markets. The chapter explored what is the rationale behind SMMs: the benefits, the preconditions and the reasons to develop them. Their introduction and use can improve housing affordability through the increased competition in Primary Markets, increase the flow of funds to the housing sector and better allocate the risks inherent in housing finance. However, despite all the benefits regarding SMM, its introduction must be carefully structured. The discussion established that SMM must be developed only when specific constraints need to be faced and when particular conditions are in place. Furthermore it was pointed out that SMM are generated, as long as the law allows it, as a derived response in the market from capital constraints in lending institutions.

Chapter 3. The case of Peru

3.1 Introduction

This chapter is aim to describe and justify the chosen research methods according with the study of the research subject. The research focused on the appropriateness of a SMM in a developing country context is analyzed from the point of view of the research methodology.

The chapter is divided in five sections. In the first section the Peruvian Housing Finance System is outlined and a description of the National Programs is provided in order to identify the main actors be involved in the analysis. In the second section the research methodology is outlined. In the third section the field work strategy is described. In the fourth section the sampling method is explained. Finally in the fifth section the reporting of findings strategy is given.

3.2 The Peruvian Housing Finance System

Peru at a glance
Population (million): 27.9
GDP Gross D Product (millions US$): 64,600
GDP per capita (US$): 2,315
Economical growth (average 2000-2004): 3.4%
Inflation (average 2000-2004): 2.2%
Credit portfolio/GDP: 22%
Housing ownership rate: 65%

The Housing deficit in Peru accounts for 1,233,000 units, around 20% of the total of households in the country. The quantitative deficit is 326,000 units and the rest 907,000 is the qualitative deficit. Almost one quarter out of the deficit is concentrated in the capital city Lima. Additional to this deficit, the housing demand grows annually in 90,000 units. (Titulizadora, 2005)

Peru's housing market, characterized by rapid urban development in the last 20 years, has been flat in the 1990's, due to hyperinflation, collapse of housing finance institutions, and disappearance of mortgage lending from the marketplace. The Peruvian government has made it a priority to provide affordable housing. Since 1999 the government has started an enabling role in providing affordable housing. In 2002 the Ministry of Housing, Construction and Sanitation was created and within it the Vice-Ministry of Housing and Urbanism-VMVU who implement the National Housing Plan.

The National Housing Programs

The Housing Finance System is based mainly on two Housing Programs: The Banco de Materiales and Mivivienda Fund.

The Banco de Materiales (BanMat) was created in 1980. The institution objective is the promotion of construction, enlargement and improvement of minimum core-unit houses. BanMat gives loans in the form of construction materials and labor. Since 1993 the purpose was to support self-construction finance mainly targeted to the poorest group or sector E. In

1997 a reform in the law added new roles to BanMat to support projects of upgrading and urban, productive and services infrastructure.

The Mortgage Fund Mivivienda was created by Law No. 26912, the housing finance program is meant to facilitate the acquisition of social housing, through financial institutions - IFIs[10] (banks, housing cooperatives), to:

The acquisition of finished housings or in process of construction, in first sale.

The construction of housing units in own urban land.

The "National Mortgage Fund MiVivienda" is the core institution of the Mortgage Finance System in Peru. The organization channels funds to the financial institutions of the system to give housing credits to low and middle-low income families with a subsidized interest rate. The funds, initially the resources of the ex-National Housing Fund (FONAVI), are administered by a second level financial institution The Development Financial Corporation (COFIDE). Currently 27 private financial institutions are allowed to give mortgage credits with resources of Mivivienda Fund. In 1998 the regulation of Mivivienda Fund (MF) was promulgated, since then the law has had various modifications. In 2001 new functions were given to the institution. MF was allowed to guarantee mortgage credits or securities related to the housing finance issued by financial institutions or security institutions. Recently in July 2005 by law 28579 MF has became a Public Limited Company. Mivivienda S.A. is allowed to guarantee mortgage credits and issue mortgage-backed securities. (See Box 2 in Annexes for details of the Law)
The prerequisites of Mivivienda Credits are presented in Table 2.

Table 2: Prerequisites to Mivivienda Loans

ACCESS TO A SINGLE FAMILY DWELLING
PREREQUISITES FOR ACCESS THE CREDIT
1. Be Peruvian; 18 years old or more and be currently residing in Peru.
2. Not in possession of own housing, neither the wife nor the children. Certificate from Land Registry Office showing no ownership of properties
3. Fulfil the requisites of the particular financing institution that will give the credit.
4. Have the 10% of the total cost of the dwelling.
5. The cost of the housing (inhabitable part plus the land plot) **must not exceed** 35 UIT (taxation unit settled by the Bank of the Nation) which currently is equivalent to US $ 34,000.
Minimum initial payment of 10%
Around $3 400 dollars that can be covered by the value of the land plot.

Source: Mivivienda Fund

The Mivivienda Fund neither constructs nor sale any housing unit, there is the private sector, construction companies, who designs, finances, promotes and sales housing projects. In order to reach households of different sectors, three programs were created:

The program "Mivivienda" or "My Housing" is targeted to the sectors B and C.
The Program "Techo Propio" or "My own roof" is targeted to the sectors C and D.
The Program "Techo Propio Deuda Cero"

[10] Financial intermediary institutions qualified to granted resources of the Fund, could it be Banks, Saving and Credit Rural institutions (CRAC), Saving and Credit Municipal institutions (CACM) y EPDYMES.

The Program Mivivienda was the Winner of the Managerial Creativity Award in 2003, for being the best Public Management initiative.

Table 3: Housing Programs Guidelines

	Cost covered by the plan	Housing cost (dollars)	Personal savings needed to get the credit	Special Bonus (dollars)	Credit	Bonus to the good payer	Area
Mivivienda	100%	32 000	10%	-	90%	-20%	No regulations
Techo Propio	100%	8 000	10%	3600	80%	-	-
Techo Propio Deuda Cero	100%	4 000	10%	3600	-	-	22 M2

Source: Mivivienda Fund

3.3 Research Methodology

The study is an exploratory research. The research methodology already explained in chapter one divided the study in 3 define steps. The details of each step are explained:

Step One. In the first step literature already available about concepts, benefits, prerequisites and reason to develop SMM was reviewed. SMM is a mechanism that was first developed in United States. Since its creation the financial mechanism has been analyzed for experts in contexts of developed economies and recently in developing countries. As the financial tool has gained world-wide attention more experts have conducted studies specially to give recommendations to still small economies. The researcher selected reports and books of international organizations, especially from The World Bank, The Inter-American Development Bank and the Economic Commission for Latin America and the Caribbean - United Nations

Step Two. The desk study included the review of the current situation of the Housing and the Mortgage Finance Markets in the context of a developing country: Peru. This information was mainly gathered from the Ministry of Housing, Construction and Sanitation, the National Mortgage Fund Mivivienda and the Ministry of Economy and Finance (MEF). Studies and reports made by international organizations, especially the Inter-American Development Bank and the Economic Commission for Latin America and the Caribbean - United Nations were also analyzed to identify general possible reasons that explain the small development of Primary Mortgage Markets (PMM) in developing countries. Studies made by private organizations like The Institute Apoyo were also reviewed in order to contrast opinions from the private and public sector. The study of lessons learnt from the Chilean Experience in Mortgage Bond Market was conducted by reviewing reports from the World Bank. The Chilean experience was taken into consideration because it is considered a good example in the Latin American region,

Step Three. In-depth interviews were conducted to key institutions using at the same time 2 approaches: the general interview guide approach and the standardized open-ended interview. The first approach involves a list of questions or issues to be discussed during the interview;

the second approach involves taking different interviewees through the same questions. The main data recording method was note-taking. Direct communications between the researcher and the interviewees, made to clarify very specific issues, used both approaches the open-ended questions and the informal conversational interview based on spontaneous generation of questions to draw details in the course of the communication.

3.4 Field Work Strategy

Because of the special circumstances about time and resources of the research, the impossibility to travel back to Peru was tackled in a way that did not affect the final results of the research. In order to make the appointments and conduct the interviews a professional was hired in the capital city Lima. Because of interviews were the instrument to gather opinions and current information, a direct communication between the researcher and the representatives already interviewed was conducted by telephone in order to make further clarifications and specifications about the data collected.

3.5 Sampling Method

Sampling Method

The method selected was that of non-random (purposeful and convenience) sampling. It was used because of the qualitative character of the data gathered by the interviews and because of it involves a more focused and deliberate sampling within the national organizations. It must be emphasized the importance of getting information from organizations that play a role in the field of Housing and Mortgage Finance from both public and private sectors. These included the Ministry of Housing, Construction and Sanitation, the Ministry of Economy and Finance, the National Mortgage Fund Mivivienda, one Financial Institution of the private sector, one Insurance company and one private Construction Company. The organizations were selected according to their role played in the subject of the research. The interviewees were high officials working in areas or departments relevant to the study. Their opinions had to reflect the official position of their institutions. This characteristic made the arrangements for the appointments very difficult and time-consuming.

The Interview Design

The interview design was tailored for each institution. The reasons for conducting different interviews are based in the boundaries of competency of roles between institutions in the case of the public sector. On the other hand in the case of the private sector the interview design was based in their different roles in the PMM and their potential roles in a SMM.
The issues considered in the interviews were grouped into four categories: Macro Economic environment, the Capital market, the Legal and Regulatory framework and the Primary Mortgage Market. (See Box 3 in Annexes) The research was mainly focus on the current situation of the Primary Mortgage Market and the problems/constraints it is facing that a SMM can alleviate. For that reason the third category was further divided into three sub-categories: The first sub-category involved questions about credit risk, problems to execute collateral and administrative cost; the second sub-category involved questions about liquidity and interest rate risk and finally the third sub-category involved questions about capital constrained lenders. Nevertheless the other categories were analyzed as important

prerequisites to a SMM development and factors that strongly influence the development of the PMM.

Issues considered

The questions related to the **Macro economic environment** were intended to draw opinions and perceptions about the macroeconomic stability and the current and future role of government economic policies. They were addressed to all the interviewees in order to analyze their reliance on the economic policy direction taken by the government.

The readiness of the **Capital Market** and the investors' demand for mortgage-backed securities were examined. The potential investors in these financial instruments were identified based on the desk study that analyzed experts' opinions and experiences in other countries. The questions were addressed to all the interviewees except the Ministry of Housing, Construction and Sanitation and the Consortium of construction companies.

The **Legal and Regulatory framework** category was focused on opinions and perceptions of the main actors about the legal and regulatory framework and institutional relationships. Questions about the perceptions on the institutional performance of MF were important as the expected organization role as issuer of MBS. The research stressed the importance of regulation and taxation matters however no further detailed questions were made as it is not the objective of the research to examine the setting up of a SMM. Questions about the reliance in the Peruvian judicial system were very important. The questions were addressed to all the interviewees.

Finally and based on the literature review the main category of the interview **The Primary Mortgage Market** was further divided in sub-categories. The desk study allowed foreseeing the possible problems faced by the PMM and grouped them as it was already mentioned. Later on in the research the explanation and purpose for grouping them is given.

Institutions Interviewed

The criterion to select the interviewees was a purposeful one. Important institutions and companies were selected from the public and private sector according with their roles in the PMM and their possible roles in a SMM. Also it was important to select the appropriate representative of each institution according with the expertise in the subject, future involvement and position within the organization of the actor.

From the public sector two Ministries and one organization were selected: the fully involved Ministry of Housing, Construction and Sanitation, the Ministry of Economy and Finance and the National Mortgage Fund Mivivienda, organization that is intended to play the most important role as future insurer and issuer of MBS. The representatives interviewed were the National Housing Director, the Sub-director of Public Budget and the Executive Secretary respectively.

From the private sector, two companies were chosen as they are potential investors for MBS: the Insurance company Profuturo S.A. and the second bank in the financial system The BBVA Bank. The interviewees were the managers of the Investment Departments of each private company. The main focus of the interviews was to analyze their interest in buying the product and their confidence in the bond market and the political and economical environment to encourage a SMM.

The financial institution as one of the major banks in the mortgage market was mainly asked about the constraints and limitations that the institutions perceives as the reasons for the small development of the Primary Mortgage Market

Finally the Consortium MacroSur S.A. set up by three construction companies was interviewed. The role of the company in the Housing Market gave inputs about the constraints of the Housing Supply especially to the sectors C and D. The manager director of the Consortium was asked about the current limitations of housing projects developed under the three housing National Programs; Techo Propio Deuda Cero, Techo Propio and Mivivienda. The emphasis of the interview was on the financing of the projects from the point of view of the company and also from the point of view of the borrower. The company works closely with households to carry out and present their applications to the IFIs registered in the housing programs Mivivienda.

3.6 Reporting of Findings

During the fieldwork period the desk study and the interviews were conducted. The data is presented and analyzed in chapter four in the order that issues were structured in the theoretical framework. The same structure used in the interviews. According to Patton (1987) the content analysis involves putting together all the data related to answer a particular question, and then subdivides that data into coherent categories, patterns and themes. The data collected from the desk study and the interviews are the base for this content analysis.

Furthermore in chapter four the data: characteristics, statistics, other relevant information and opinions are putting together in a methodological way. Facts, opinions and studies made by international and national organizations are presented and contrasted. During the analysis and gathering of data, new questions important to the research subject are raised and answered. The questions not necessarily were part of the interviews but are the researcher method to structure the analysis and give answer to the main research questions.

Chapter 4 Results

4.1 Introduction

SMMs offers greats benefits to the development of the Primary Mortgage Market and to the national economy in general. The Peruvian government is seeing the mechanism as a way to enhance housing affordability in a critical situation of National Housing Deficit and demand. The mechanism offers giving sustainability to the Mortgage System. The existence of a favorable political, economical, financial and legal environment is critical. Furthermore according to the literature review there must be a real need of capital market funding.

In this chapter both issues are analyzed in a developing country context: the existence of a favorable environment and whether there are real constraints and needs in the Peruvian Primary Market that claim for a SMM development.
The findings are grouped and presented in relation to four factors. Despite the fact that the research is focus on the need for a SMM to achieve development in the PMM, the three other factors were pointed out as their performance also influence the deepness of the PMM. In the case of the Capital Market issue, it was taken into consideration as the appetite of investors for mortgage instruments can be a stimulus to increase efficiency in the PMM

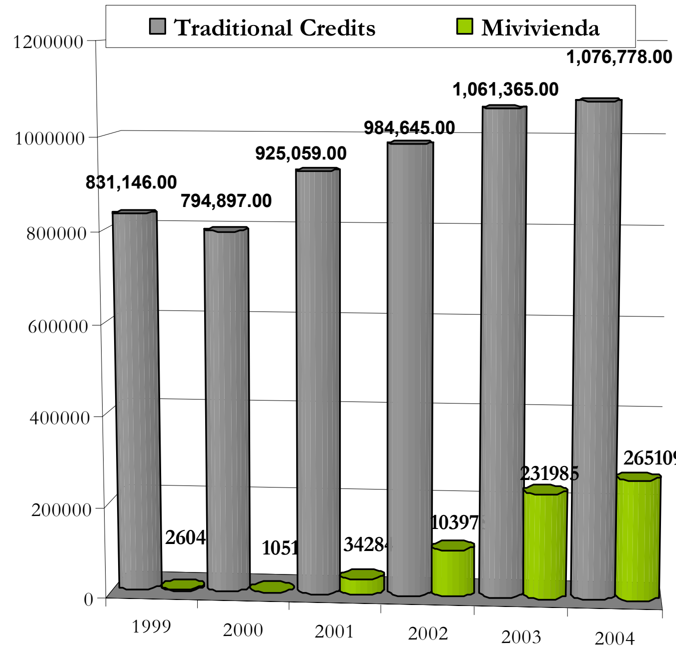
The chapter is divided in six sections. In the first section the Peruvian Mortgage Market is analyzed to assess its maturity and further comparison is made against other regions in the world. The desk study made is the principal source to this assessment and comparison. In the second section the Macro Economic Environment is outlined. In the third section the Capital Market readiness is analyzed, the main actors identified and the appetite for the mortgage instrument appraised. In the fourth section the Legal and Regulatory Framework is pointed out. The perceptions of the main actors about the legal and regulatory framework and institutional relationships gathered from the desk study and from the interviews are provided. In the fifth section the PMM is examined. The problems/constraints of the lending system are analyzed by grouping them in relation to the financial solutions offered by experts and international experience. Finally in the sixth section the possibilities to and the potential benefits from a SMM development in Peru are outlined. Also International and national organizations and institutions' opinion are provided.

4.2 The Mortgage Market

Mivivienda Fund is the core institution of the Mortgage Finance System in Peru. The government-related institution channels funds to the financial institutions of the system to give housing credits to low and middle-low income families with a subsidized interest rate. The Mivivienda Fund takes the credit risk of the mortgage portfolio but not the interest rate risk neither the risk of mismatch of terms.

According with the Institutional Plan 2004-2007 of Mivivienda Fund, MF functions as a catalyst of the Primary Mortgage Market, seeking to attract the private sector participation (financial and construction sector) in the presence of the restricted inclination of the banking sector to devote its own long-term resources to the financing of housing. The funds already assigned by Mivivienda Fund represent the 24.62% of the total of the mortgage portfolio in the system.

Figure 3: Evolution of the Mortgage Portfolio



Source: Mivivienda Fund, 2004

Since the creation of Mivivienda Fund in 1999 to the year 2002 the outcome of its intervention was not positive (See Figure 3). In fact the World Bank catalogued it as "not very active". Various modifications to the Housing programs have showed recently an auspicious increase in the mortgage portfolio. The creation of the saving-based subsidy programs Techo Propio and Techo Propio Deuda Cero are estimated by the government as the main reasons for the revamped Mivivienda. Not surprisingly the representative of the MEF indicated that the major achievement of MF is that the institution has stimulated the economy, however it has not accomplished yet an effective decentralization.

Characteristics of Mivivienda Mortgage credit:

Denomination: 95% in dollars and 5% in local currency.
Average term: max 20 years
Interest rate: 14% to credits in sole and 11% to 13% to credits in dollars
Mortgage portfolio/GDP: 2.6%
Mortgage portfolio per capita: US$ 58
Mortgage portfolio/total: 11%

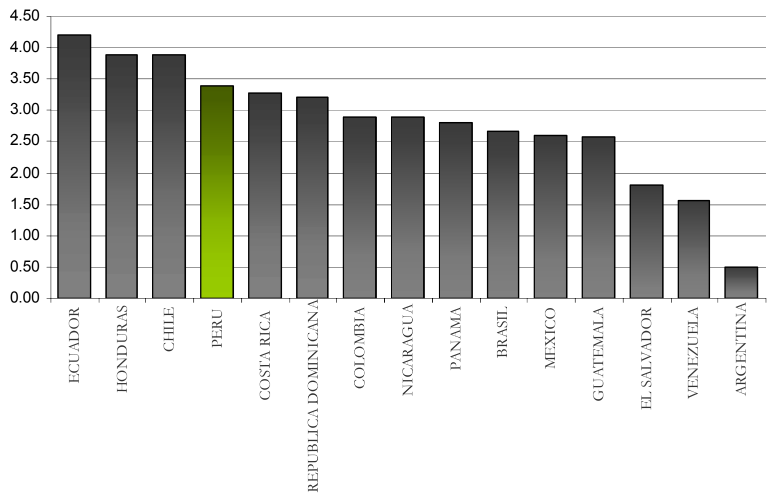
4.3 Macroeconomic Environment

Based on reports made by the Superintendence of Banks, Insurances and Pension Funds[11] (2005), during the period 2002-2004 the increase of the national economic activity at an average rate of 4.6% ranked Peru by a third year in a roll as one of the countries with most growth in Latin America region. (See graphic 4). The dynamism of exportations in a context of major international demand, the growing tendency of higher prices of raw material and concretion of investment projects; together with an expansion of domestic investment and consumption have contributed to the Peruvian economic stability and for that to the strength

[11] Governmental organism that is in charge of the regulation and supervision of the Financial, Insurance and Private Pension Fund Systems. (Law 27328)

of the financial system. The representative of the Bank BBVA described as "very positive" the economic performance of the Peruvian government and indicated that there is not an inflation risk threat that could stop the development of a SMM. (See graphic 5)

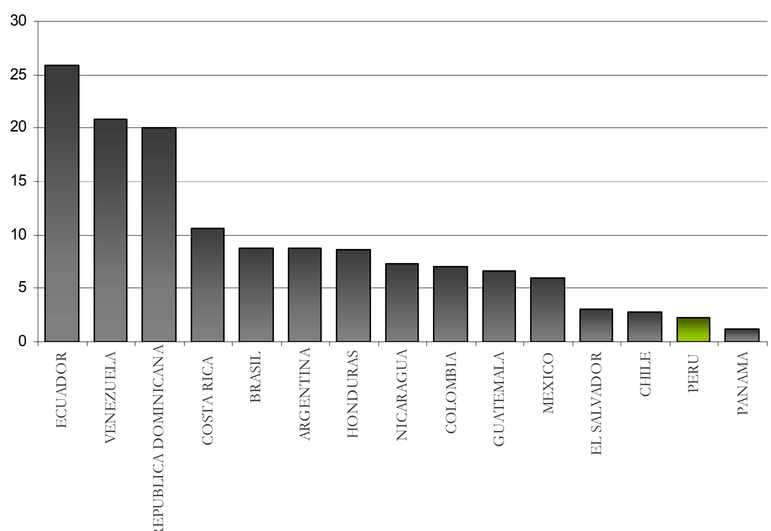
Figure 4: Economic Growth (average 2000-2004)



Source: Titularizadora Colombiana (2005)

Although this lately positive performance of the national economy there is always a strong concern, showed by all the interviewees, about the political risk that threatens any improvement achieved in the short-term. For instance, according with The National Agreement[12] (2004) the GDP per capita of the year 2004 is similar to that of 33 years back. "One possible reason for that is the lack of continuity of government policies with a long-term vision that goes further a current period of mandate".

Figure 5: Inflation Rate (average 2000-2004)



Source: Titularizadora Colombiana (2005)

[12] The "Acuerdo Nacional" is an agreement signed by political parties, religious institutions, the civil society and the government in 2002 about 31 policies related to the main national objectives. Since then it has been an open forum of national discussion about government policy direction, measures and goals.

4.4 Capital Market

The Bond Market in Peru is analyzed from the point of view of the bond market preparedness and the appetite of investors for MBS. As already established in the theoretical framework a SMM can only be developed in a strong capital market where the infrastructure allows potential investors to participate and where there is a demand for the mortgage instrument.

I. Bond Market infrastructure

Peru's bond market is dominated by public debt and is relatively small with trading volumes of debt instruments being about US$1.7 billion or about 3.1 percent of GDP in 2001. Given the contraction of the economy, the number of private sector bond issuances fell from 14 (for a total of US$182 million, an average size of US$13 million) in 1995 to just 3 in 2001 (for a total of US$75 million, an average size of US$25 million); the increase in average issuance size is an indication that only a handful of larger companies are currently being able to access the market. "In 2004, firms issued $1.26 billion on the local bond market, which has been propelled in recent years by demand for investment instruments by private pension fund companies" US State Department

In a paper discussion of the International Monetary Fund, Jorge E. Roldos made a reference to the Peruvian capital market "Domestic capital markets has grown considerably over the last decade as a result of capital inflows to Latin America and revitalization of location markets by expanding the number of publicly traded companies and the types of instruments available." Despite of this growth, the Bond Market is still small, the Bank BBVA indicated *"It is a small market which disadvantage is precisely the volume. There is scarce supply of bonds to invest"* Furthermore, according to the US State Department *"Nearly all issuances are either in US dollar or in dollar-linked bonds as the high nominal interest rates on long-term NSoles denominated bonds are unattractive to corporate issuers."*

Actors

Additionally to issuers and investors there is a diversity of institutions with specific roles in the system. These actors are the societies of brokers, the Lima Stock Exchange, CAVALI, the risk classification companies[13] and CONASEV[14].All firms listed on the Lima Stock Exchange or the Public Registry of Securities must be vetted by CONASEV. According with the current legislation, the issuers of securities and other liabilities must have the assessment of at least two risk classification companies.

Is there a Government intervention to incentivise the capital market to grow?

Based on the opinion of the MEF it is through regulation that the government allows the market to freely develop. The government has recently launched the Program "Market Primary Dealers" (Creadores de Mercado) and given a yield benchmark by the successful issuing of Peruvian Sovereign Bonds.

According to the newspaper Expreso (2005) the issuing of sovereign bonds gives one additional benefit to the system. It incentives the future development of the mortgage market in soles. The successful operation has encouraged the trust of the overseas capital in the local

[13] Currently in the market there are four risk clasiffication companies: Apoyo & Asociados Internacionales S.A. Clasificadora de Riesgo, Clasificadora de Riesgo Pacific Credit Rating SAC, Class & Asociados S.A. Clasificadora de Riesgo, Equilibrium Clasificadora de Riesgo S.A.

[14] The National Commission for the Supervision of Companies, Securities and Exchanges, which maintains the Public Registry of Securities and Stock Brokers.

market. The financial institutions may achieve credit lines at lower interest so they can offer mortgage credits with lower rates to their clients. The Bank Association ASBANC further indicates that the Pension Funds were the principal investors in sovereign bonds.

According to the presented data the bond market in Peru has grown during the last decade. However it remains small and with few instruments to invest. The government has given the market a yield benchmark by the issuing of Sovereign Bonds which is considered by the Bank Association an incentive to the future development of the market.

II. Attractiveness for mortgage-backed securities
What are the potential Institutional investors?
According to the World Bank there are three main institutional investor groups in Peru, the private pension system, the insurance companies and the mutual funds. Of these, the private pension funds are the most substantial at US$3.6 billion or about 70 percent of the investment portfolio of the institutional investors. On the other hand due to fairly restrictive investment limits and lack of diversified issuances (limited government and corporate issuances), the pension funds and insurance companies are exposed to the banking sector with about 40 percent of their investments in banking sector related products. This has created some vulnerability in the system and possibly limited the growth of the bond and equity markets by reducing the impact of these market players. Further the WB indicates that this can be addressed by:
- A well defined program of government issuances (to help build a benchmark yield curve)
- Removing or lessening some of the impediments to new issuances especially of mortgage backed securities which can have excellent ripple effects.
- Increasing the limits for offshore investments to permit diversified portfolios.

Although there is a great potential, the investment in securities is low. According to Titulizadora Colombiana (2005) "In Peru the total balance administered by the Pension Funds is of US$ 7,100 million (11% GDP).The distribution of these investments is: 30% equities, 25% public bonds, 20% securities of the financial sector and the rest 25% in other investments like corporative bonds, offshore investments. The participation in securitized bonds is only 2.3%. The investments of the banking system counts for US$ 3,500 million (5.5% GDP) .The participation in securitized bonds is 10%. Finally the insurance companies administered investments of US$ 1,800 million (2.8% GDP). The participation in securitized bonds is 5%."

Are they interested in the financial instrument? What are their demands?
During the interview to the representative of Mivivienda Fund, they were asked about the potential interest of institutional investors. According to the institution the majority of institutional investors have already showed their interest. The institution also has estimated that the demand for the product is approximate of US$ 1,700 million. Furthermore, Mivivienda Fund's opinion about the attractiveness of the instrument in the market was: *"If the instrument achieves the risk classification requested by investors, then the demand will exist"*
During the interview conducted to the MEF, the institution indicates that the Pension Funds and Investment Funds have showed interest in MBS. "There are scarce instruments and a surplus of liquidity in the country. The demand for fixed yield return instruments is always present"

According to the investment manager of PacificoVida Insurance Company, there is a great interest for Mortgage-backed securities (bonos titularizados) but there are still some improvements and changes to be done in the legal system and about the management of risks. *"They (MBS/bonos titularizados) are the best assets to invest in as they match in maturity with our long-term liabilities, we deeply long for them but there is not an appropriate environment. We already have had meetings with Mivivienda (National Fund) and we talked about the improvements needed. "*

The Insurance Company indicated as the main constraints the existence of:

- Currency Risk taken by the buyer of the MBS if the securities are issued in dollars while borrowers have their incomes in soles. A high coupon yield will be demanded by investors
- Distrust in the Regulatory and legal framework and in the administration of the system.
- Distrust in the Peruvian Judicial System to enforce the execution of collateral.

By contrast, the Bank BBVA manifested not being interested in MBS issued by MF, although finally the representative suggested that it would depend on the conditions of the market.

It can be implied by the opinions of the interviewees that there is a deep concern about the future risk managing of the instrument. A solid PMM that guarantees high-quality loans is vital. The risk qualification demanded by the investors needs to be achieved also to attract those who are not currently interested in the financial instrument.

The relevance of the Pension Reform

"Pension Reform is the best friend of housing Finance"

Renaud, World Conference 2004

Following the lead of Chile, which initiated the reform driven in Latin America, several other countries in Latin America and more recently also in central and eastern Europe, have adopted variants of a funded, privately managed, defined-contribution personal accounts retirement system. Pension reforms are leading to an important increase in assets under management (AUM) of private pension funds. In Latin America, Chile's AUM have reached 54 percent of GDP after 20 years of operation of the fully funded system. The outcome of reforms has been broadly successful.

The authors show that in the cases of Chile, Argentina, and Peru (the countries with the longest history of reform), pension reform contributed significantly to the accumulation of "institutional capital," a combination of a better legal and regulatory framework, increased professionalism in the investment decision making process, and increased transparency and integrity. They also note that the accumulation of funds was associated with the growth of annuities, mortgage bonds and other asset-backed securities, the creation of closed-end mutual funds and local rating companies, as well as with the introduction of innovations in securities trading and custody. In Peru the 1993 introduction of private pension funds has bolstered local capital markets.

4.5 The Legal and Regulatory Framework

The securitization of assets in Peru has already a regulatory framework: The Law of the Securitization Market of 1996, and the Regulation of Asset Securitization Processes of 1997. This legislation has legal definitions of a trust, a Special Purpose Vehicle and an investor. It allows the issuer to transfer a mortgage (or pool of mortgages) from the legal control of the issuer to the legal control of the trust or SPV.

However, the setting up of an appropriate legal and regulatory framework is sophisticate due to the legal complexities of mortgage securities and specialized institutions. The applicability of the existent framework will demand further efforts to overcome possible technical flaws. Especially in the implementation of modern mechanism like SMM the process may become complex and time-demanding, frequently requiring additional amendments. Mivivienda programs have suffered various changes since its creation which could reflect the need for institutional additional efforts to set up new mechanisms. A legal and regulatory framework to set up a SMM will need to be customized to the context of Peru.

A SMM mechanism involves the participation of various public and private specialized institutions. In Peru the difficulties and complexities in relation with institutional participation and coordination in legal and regulatory processes are discouraging. Complex processes that demand institutional coordination are seen as bothersome. For instance the possibility of an unbundled mortgage activity into specialized institutions is still perceived as complicated. The representative of the Bank BBVA indicated *"If the current coordination with COFIDE and MF is already bothersome, the coordination with more institutions will be difficult"*

Furthermore, the difficulties are not only because of technical practicalities but also because of the distrust in the public institutional transparency. This major constraint in Peru has been a deterrent to achieve legal and judicial systems strength. The debate about the non-political character of Mivivienda Fund was also pointed out during the interviews. Especially now that the government-related institution can perform roles as guarantee and issuer in securitization processes, the investors' judgment about the institution must be carefully managed. According to MF: *"The non-political character is achieved with the strong commitment of the Minister in charge to attain a technical character (...) The private sector's reliance begins with the cautious management of the public debt by the MEF".* Although the present management of the institution has a positive public acceptance, the Bank BBVA indicated that there are already uncertainties about the future character of MF by the year 2006.
The representative of MF emphasized that the institution will operate as a financial institution, and that the SBS will determine if it will be given a risk qualification. Based on the opinion of the Bank BBVA the investors will not be concern about it but the risk qualification of the instrument itself.

Taxation procedures also involved many complex details. Over taxation can discourage investors and increase the cost of mortgage credits to the final borrower. As part of the interviews some questions were made about this important issue. Different incentives required by the institutions were pointed out which demonstrated that there are still possible improvements to be made. For the purpose of the research it is important just emphasize that the MEF showed a clear position about it: "the government will not give other tax exemptions apart form the already present" while MF explained that are issues in which they are working on. The role of the government as an enabler is critical.

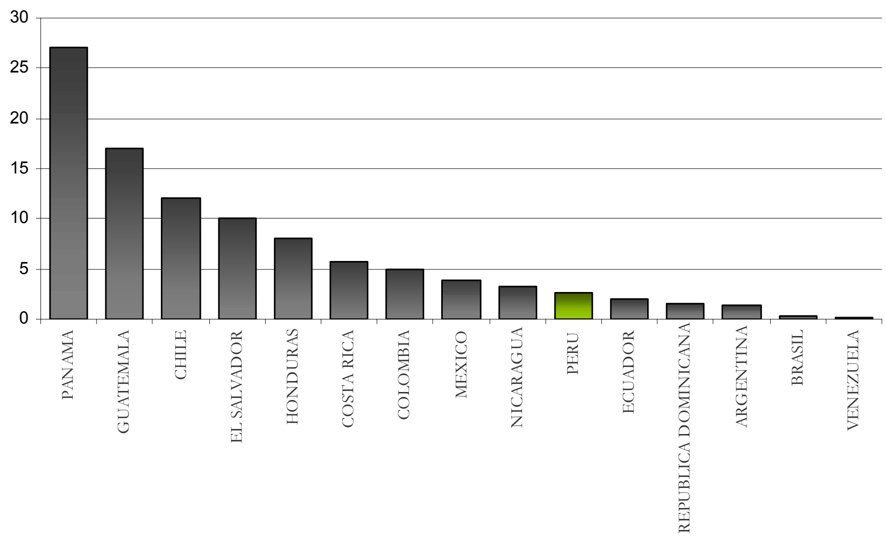
Finally it is central to stress that all efforts must start in the overcoming of legal and regulatory limitations in the Primary Market. It is not proper to implement a SMM when strong problems still hinder the lending system. Investors' concern in the quality of the instrument generated in the PMM transaction is one of the most important aspects to solve.

Further on in the analysis of the PMM the constraints to constitute and execute collateral are outlined.

4.6 The Primary Mortgage Market

In Peru the value of Mortgage credit to GDP goes just to 2.9 %. (See graphic 5) While in Chile and Panama this value goes beyond 10% to GDP. By contrast, in United States the mortgages credit represents near to 80% to GDP and in the countries of the European Union this value is more than 40% to GDP on average. (See chart..) The atrophy of the Mortgage Credit in Latin America is not just the result of the low financial deepness of their economies because the Mortgage Credit represents also a very modest fraction of the assets of their financial systems. (BID, 2004)

Figure 6: Mortgage Portfolio to GDP



Source: Titularizadora Colombiana (2005)

Table 4: Mortgage credit to GDP

Country (year)	Percentage to GDP	Percentage to Total Credit	Source
Peru (2001)	**2,9**	9,5	Eyzaguirre and Calderon (2003)
Mexico	2,1	13,5	BID based on data from the Mexican National Banking and Bond Commission
Chile (2001)	**10,8**	17,7	Morande y Garcia (2003) Chilean Chamber of Construction
Panama (2002)	24,4	26,4	Republic of Panama (2003), BID
European Union	42,6	41,0	Dubel (2004), BID
United States	**79,6**	87,2	Dubel (2004), BID

Source: Inter-American Development Bank (2005)

Peru has had a continuous growth since the second half of the 90's. Studies made by Titularizadora Colombiana show relevant comparisons. In Peru the Mortgage Market in 1997 accounted for US$ 300 million and in the year 2004 it was US$ 1,620 million. In the past decade the percentage of the Mortgage credit to the total of credit was 2% while in the year 2004 it was 11%. Although the notorious growth of the Peruvian Mortgage Market, it is small especially when compared with other Latin American mortgage markets. According with Titularizadora Colombiana in 2004 Chile had a Mortgage Market of US$ 13,156 million and Mexico of US$ 11,365 million.

Why is the Peruvian Mortgage Market so small?
In the year 2003 the **Apoyo Institute**[15] financed by the IDB made a research about the Mortgage Market in Peru. "Although the Peruvian Mortgage Market could be considered small, it has a great potential. Some signs that prove it are the rapid growth performed in the last years, the increasing competition between lenders, interest rates going down during the last decade and the unsatisfied high housing demand. All in all there is a great potential in the sector, there are factors that constraint its development. Some of them are mainly economical and financial reasons, namely: Low flow of long-term funds, low degree of affordability of the borrowers. Others are mainly institutional factors, namely: legal insecurity and instability and the inefficiencies of the system to execute collateral"

According to the Economic Commission for Latin America and the Caribbean (ECLAC-United Nations) in the inform made about the Mortgage credit and the access to housing in Latin America it explains that the limited expansion of the Peruvian Mortgage Market could be attributed to two major reasons:

1. The low purchasing capacity of most of the population, and the incapacity to prove stable income, that constraint the potential demand of mortgage credit by borrowers.
2. The lack of long-term funds mobilized by the banking system that could be devoted to long-term loans. The mortgage Bonds (letras hipotecarias) that were intended to tap the growing capital of the private pension funds did not success as expected.

The national and international organizations agree on two possible limitations to the Development of the Mortgage Market in Peru: the lack of long-term funds and the low purchasing capacity of borrowers in concurrence with institutional constraints.

Further on the analysis of the primary market is divided in the three major groups of problems established in the theoretical framework as significantly affecting a mortgage market. Within these groups there are included the two limitations appointed before. The purpose of this approach is to group the problems and to facilitate correlate them to the solutions offered by the financial system. The main intention was to isolate the problems that a SMM can alleviate and for which it was created.
During the process of searching and grouping the problems, other limitations were also added to each group.

The problems/constraint found are limitations that the Primary market is facing. These problems are those of the mortgage instrument itself. They are mainly risks that in a SMM the investor would have to face.

[15] The APOYO Institute is a non-profit organization born in 1989. The mission of the APOYO Institute is that of producing and spreading information and analysis for the promotion of a sustainable economic development, growth and improvement of options in public policies, and strengthening of democracy. In its twelve years of existence the APOYO Institute has collaborated and received financing from different international cooperation agencies and foundations: World Bank, Inter American Development Bank, Agency for International Development of the United States Government, Canadian Agency for International Development, German Agency for Technical Cooperation, UNICEF, Center for International Private Enterprise, Tinker Foundation, National Fund for Democracy, among others.

The final grouping was the result of gathering and pulling together all the information collected from the desk study, the interviews and in some cases from relevant characteristics and lessons learned from the Chilean case.

What are the problems/constraints faced by the Peruvian Primary Mortgages Market?

I. Credit risk, problems to execute and realize collateral and high administrative costs.

a. Credit risk due to low purchasing capacity of borrowers

The low purchasing capacity of families due to low and instable incomes is one important reason for the small mortgage market. According to the IDB the problem is very serious especially in Latin American because of the strong concentration of income in higher stratus and the high rates of poverty and informality: typically in the countries of the region half of the total income is received by the 10% richer of the population. Moreover UN-Habitat (2003) estimates that the price of a house in Latin American region is equivalent to **6 years of the income of households**. Although this reality could be seen as insuperable, a considerable portion of low-income families do own their houses. The IDB shows that ownership in the poorest quintile of the population not only is high but also differs little from the national average of ownership. Unfortunately the conditions of these houses remains inadequate and have low quality standards.

According with the IDB lenders are still reluctant to give credits because of low incomes and the uncertainty and irregularity of job status of borrowers. For instance in Lima just 11% of the households have an average familiar income above US$ 1,100. In addition during the last years there has been an increase of households that depend of eventual jobs, especially the poorest groups. Only 30% of householders in the income groups B and C have a stable job and can prove regular income.

Furthermore, the low capacity of saving of low-income borrowers is another factor that discourages the mortgage finance sector as it may prove their incapacity to repay a credit. The next chart made by Mivivienda Fund shows this factor according to the price of the unit.

Table 5: Capacity of saving by housing unit price

Range Housing Unit Value	US$ 8,000 – 18,000	US$ 18,000 – 30,000	US$ 30,000 – 45.900	Total
Saving	25%	29%	34%	**30%**
Non-saving	75%	71%	66%	**70%**
Monthly average of saving (US$)	102	109	174	127

Source: Mivivienda Fund (2005)

As pointed out before, households can indeed afford a house along the time. The task for governments is to incentive and to facilitate low-income households' participation into the formal financing system. In this way borrowers can build their own creditworthiness. Unfortunately bad credit behavior over time has discouraged banks to lend them. One reason for this may be the irregularity of income flows to households and also bad culture customs. According to the IDB borrowers modify their behavior according to circumstances. For instance in the case of Chile the programs through the Ministry had a morosity rate of 66% between 1998 and 2002. IDB explains it "although the programs are designed to solve the problem of incapacity to pay a credit, they are not immune to a moral risk that in this case means that the beneficiary of public credit modifies his conduct because the State is a bad collector". The Bank BBVA indicated that the credit risk is well controlled by its qualification system.

Is there a way to increase the affordability of low-income families?

"The subsidies are an attempt to solve the problem of low purchasing capacity" (IDB, 2004)

Previous government failures in managing housing subsidies programs have led to reorient its goals. "Direct housing construction by the public sector, subsidies to the supply and control over construction materials prices proved to distort the housing market. They mostly diverted resources to middle and high income groups; they were source of corruption; they misled the development of services and materials sectors; and finally they discouraged the housing supply to the poorest groups". (Pardo, 2000)

According to the IDB by the year 2002 the Housing program Mivivienda was catalogued as unsuccessful because it had only assigned 20% of its funds. Currently by June 2005 Fondo Mivivienda has assigned almost 60% of its funds. The reason for this increase in the flow of funds may be the launching of the program Techo Propio which is similar to the Chilean subsidy program. The program assists first-time-house-owners with a direct one-time subsidy per household. One important prerequisite of the program is the contribution in a saving bank account with at least 10% of the price of the house. This familiar contribution is supposed to encourage a saving culture in Peruvian households. One last modification in June 2005 gives the opportunity to apply to the program with a saving account of only US$ 100. If the household is selected to the program he has till 90 days to complete the downpayment of a maximum of US$ 800. (10% of US$ 8000 the maximum price of houses under the program)

Have been improvements due to Mivivienda programs in the saving culture of low-income borrowers?

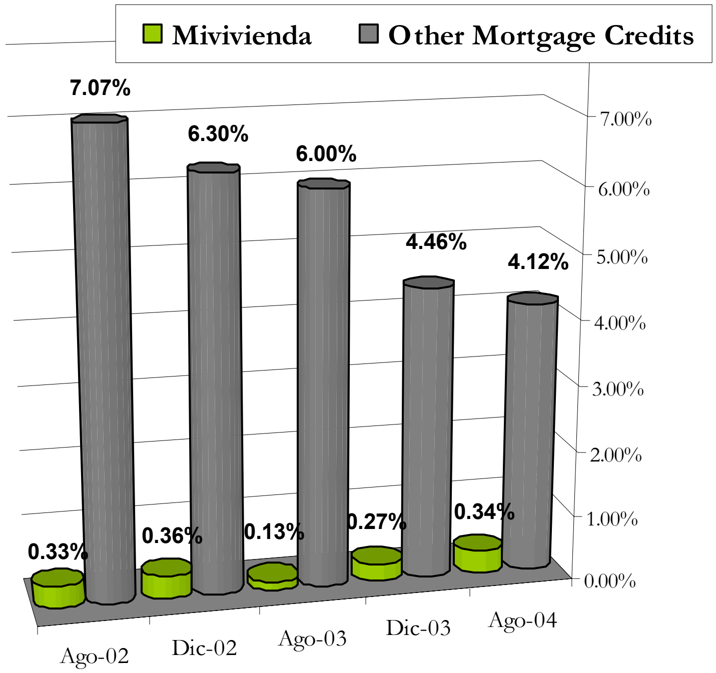
One way to measure if the launched subsidy programs of Mivivienda are making a difference in borrowers' behavior is by looking at their rates of morosity. According to Hoffmann, chief of the product in the Banco de Credito del Peru (BCP): *"The morosity of credits to 30 days in the BCP is 7% approximately. However, in the programs Mivivienda it reaches 0.3%. In this case we have to be cautious because 40% of the portfolio of Mivivienda has less than one year and a half of paid out. They are very young credits taking into account that they are 15-year credits"*

The credits given under the program Mivivienda show very positive low morosity rates compared with morosity rates of the rest of mortgage portfolio. (See graphic 7) The reason for the low morosity rates may be the "Good payer bonus", an incentive for borrowers who pay their credits on time within periods of 6 months. According with the Bank BBVA this motivation is a very good attribute of Mivivienda credits.

According to the manager of commercial business of the Bank BBVA , the second financial institution in the sector, there has not been an increase in saving accounts as a result of the programs Mivivienda.

"The new saving accounts have been very few, but it is probable that it begins to generate saving conscience. This (the saving prerequisite of Mivivienda program) has given major credibility to the program".

Figure 7: Morosity Rate: Mivivienda loans vs. other Mortgage credits



Source: Mivivienda Fund according with data collected from SBS and ASBANC

It is also important to look at the qualification of creditworthiness of potential borrowers. During the interview to the representative of the Bank BBVA, he manifested that of the total of mortgage credit applications the 50% is declined in the front office "filter" and approximately the 2% in the back office "filter" where they analyzed all the risks or where the underwriting process is conducted.

b. Executing and realizing of collateral

The difficulties in the use and recuperation of collateral when default occurs are one of the major reasons of the small mortgage finance development. (IDB, 2004)

There are two factors that authors point out. On the side of the borrowers, they are constrained because the lack of property titles and the deficiencies found in property registration systems. On the side of the lender, there is a great difficulty to recuperate the property pledged as collateral when the borrowers incur in default.

According with De Soto (2000) two thirds of all the housing and edifications stock in Latin America lacked proper titles to be used as collaterals. However the government of Peru has faced this problem with hints of success, according to the IDB "During the past ten years, Peru has issued property titles to over 1.2 million urban households, the largest government titling program targeted to urban squatters in the developing world"

The execution of collateral is a strong constraint. Not only on the side of lenders but also on the side of institutional investors this factor is seen as one of the major threats within the system. During the interview to PacificoVida insurance company, it was also pointed out as one of the three factors that could hamper a successful SMM. The concerns were mainly about the transparency in the processes of transfer of ownership of the properties pledged as

collaterals.*"From the juridical point of view all must be correctly structured to avoid fraud in the transferring of ownership. There is a fear about the compliance with regulations by the Peruvian judicial system in the moment of litigation and about the credibility of the judges when deciding about time-limits of execution of lien"*.
According to the IDB recent studies show that the delay in the execution of lien is a very serious problem in Latin America. The costs of recuperation of properties use up between one quarter and one third of the value of the debt and the processes could take between one and three years. *"Even in cases where the costs are low, like in Peru, the creditors could bear very expensive losses because of usufruct and devaluation of the properties"*.

Chile has developed the "financial leasing". Through it the ownership of the new house is kept with the creditor till the borrower finishes paying back the debt. In the case of default the legal documentation to expropriate the property is avoided.
Another legal practice is the trust contract (or fideicomiso). The trust contract facilitates the expropriation process and reduces the costs of transaction since this is a mechanism that avoids the public and notarial registration each time there is a change in the ownership of the property. This is, although, an alternative not attractive to borrowers. The IDB explains that as in the case of the Chilean leasing it does not offer enough juridical certainty to the housebuyer.
According to Fondo Mivivienda *"the trust contract is a mechanism used privately by the financial institutions to titularize mortgages of major scope (major IFIs) that back these operations especially in times of low liquidity"*.

c. Standardization in Underwriting and Documentation Processes

The Bank BBVA considered that one of the major difficulties in the administration of Mivivienda Mortgage credits is the red tape. "It is costly and abundant" Furthermore the representative emphasized: "After all the documentation is complete, it only takes 24 hours the approval of a credit"
The aspects considered needed and possible to be standardized were the general clauses in the loan contract and calculations routines (payment schedule). Standardization in the underwriting process was not considered needed. The representative of the BBVA bank considered that each bank offers different services and facilitates the process according with their own "know how. "*The standardization is not considered as an incentive because the financial institutions are interested in being differentiated. It reduces competition"*.

By analyzing previous stated data from the BBVA interview, 50% of the mortgage credit applications are declined in the front office. The great percentage may suggest the difficulties that house buyers find to gather and find correct document to apply for mortgage loans. Further on in this chapter, the critical problems indicated by the Consortium MacroSur in the preparation and approval of expedients are presented. They are costly, time-demanding and bothersome procedures.

The standardization of loans, one of the prerequisites but also one benefit of a SMM because it reduces costs, is seen as a negative aspect for the BBVA Bank. According with authors when lenders don't have capital constraints, they may perceive the prerequisites to SMM as greatly difficult.

II. Liquidity risk and Interest Rate risk

a. Interest Rate Risk

The interest rates on the mortgages must be market determined and provide investors with a positive, real risk-adjusted rate of return[16].

In Peru the interest rates are determined by the market and depend basically on political and economical factors According to the MEF the government can contribute to lower the interest rates in mortgages loans by promoting competition between financial institutions so they will be forced to lower costs and offer better services to their clients. The Promotion of competition is a permanent role of the SBS.

The instability of the interest rates in another reason that could explain the small mortgage finance sector. According to the IDB the variation annual in the real interest rates[17] in Latin American countries is 5,3 percentage points while in developed countries is 1,6 percentage points. In Peru the variation in the real interest rate during the 1990's was between 17 and 18 percentage points.

"Since the cost of the flow of funds is instable, the financial system would prefer transferring that instability to the borrower" The IDB stresses the cases of Chile and Colombia who successfully developed mechanism of indexation. Because their variations of interest rates come mostly from inflation variations, the volatility of the interest rate is relatively modest. However in this case the solution is also incomplete since the interest rate risk is finally bore by the borrower.

The recently achieved economic and political stability allows positive attitudes in this matter: *"It is possible an increase in the number of mortgage credits due to future lower interest rate achieve in the medium term. This is going to lower according the situation of the country continue improving"* Analyst of the Bank Association ASBANC.

Other mechanism employed as a protection against inflation is the use of different currencies in the denomination of mortgages credits. According to the IDB it creates a new risk, because borrowers have incomes in the national currency so they can not counteract the risk of increase of rates in real exchange.

The Peruvian Mortgage market is very "dollarizado". The program Mivivienda has 92% of its placements in dollars and the rest 8% in new soles (plus VAC or inflation-indexed).The situation in the traditional mortgage portfolio is worse: 96% of the placements are in dollars and the rest 4% in new soles. Although the credits under Mivivienda program in dollars (11.5%) have interest rates lower than those in soles (12% plus VAC) it is proven that a cheap dollar can not be sustain in a 20-year-life credit. According to Fondo Mivivienda in the case of a devaluation of the national currency borrowers with debts in soles will be treated favorably. Also the representative added that clients are able to change to a credit in soles.

During the interview the representative was asked about initial steps taken by the government to lead this process:*"We are still working on that. The "dollarization" implies a risk in the medium and long term to families with incomes in soles because they are exposed to a drastic devaluation"*.

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[16] Real rate of return: rate of return after adjusting by inflation. Return: The annual return on an investment, expressed as a percentage of the total amount invested.

[17] The current interest rate minus the current inflation rate.

About the possibility to use double-indexed mortgages mechanisms, the answer was*:*
"Not yet, but it is a future step to contribute to a sollarization process and to avoid a drastic alteration in the familiar income. This mechanism was not known by the representatives of the MEF and the Bank BBVA.

In the "Letter of Intention" with the International Monetary Fund the Peruvian Government committed itself to increase efforts to "desdolarizar" the economy. The government assured that 50% of the mortgage credits under Mivivienda housing program in the first semester of 2006 would be in soles. Representatives from Banks manifested that the current economic policies are auspicious to this process since the currency exchange and inflation rates are stable. Moreover the MEF indicated that "The market is being regulated by itself, there are already some banks that offer loans in soles without readjustments"

b. Liquidity risk

Financial Institutions use short term savings which are mostly instable to finance long term mortgage loans. It creates a mismatch of terms risk. The risk is taken on by the lenders since they compromise funds along the life of the credits. Consequently in order to cover it, the financial institutions increase the cost of mortgages credits. They will add a "risk premium" which in turn worsens the affordability of the poorest groups to get a credit.
"Even in a context of relative macroeconomic stability it is difficult to the financial system turn short-term savings into long-term credits" (IDB, 2003)

The Chilean Mortgage Bond was created as response to liquidity risk from lenders. "A bank issues a bond in order to provide liquidity for the client. In essence, the issuing bank "lends" the mortgage bond to the clients, rather than directly lending the money. Thus once the mortgage bond has been issued, it has to be sold to secure the needed liquidity. Normally, these mortgage bonds are offered for sale in the securities market. (The Santiago Securities Exchange)" (Pardo, 2000)

Currently the Fondo Mivivienda is given liquidity to the system through a subsidized line of credit to the institutional financial intermediaries. These funds are channelled to the financial institutions through COFIDE. But, **is this mechanism sustainable?**

III. Undercapitalized Lenders

Does Financial Institutions call for the use of new financial tools to increase the flow of funds? Are they financially constrained?

Supported by the World Bank, the financial sector in Peru is dominated by the commercial banks which account for over two thirds of all financial system assets indicating the underdevelopment of other types of institutions, especially credit providing ones. Seventy-five percent of assets are held by the 4 largest banks, possibly indicating the potential for further consolidation.

Table 6: Financial Institutions participation in the system

Financial Institution	Participation	Number of credits Mivivienda
Banco de Credito	**22%**	5,541
Banco Continental BBVA	**15%**	3,831
Banco Wiese Sudameris	**14%**	3,498
Banco Interbank	**11%**	2,853
Banco del Trabajo	10%	2,493
Others	28%	6,991
Total	100%	**25,207**

Source: Mivivienda Fund

According to the Superintendencia de Banca y Seguros the major banks are not restricted by their capital base, instead what hinder them from supplying loans are concerns about credit risks and reliability to the legal and judicial framework.

Based on the Ministry of Economy and Finance "the Peruvian Banking System keeps adequate levels of solvency. Nevertheless during the last years it has been observed a diminishing in the measure of leverage. The Peruvian legislation is stricter that the standard of Basilea[18]. It allows that the risk-weighted assets can not exceed by 11 times the effective patrimony, which is equivalent to 9.1% of capital. The financial institutions are regulated to manage liquidity in a conservatory way and keep an adequate rate in respect to the more risky liabilities." Currently the major banks in the system have risk-weighted assets for 5 to 6 times their effective patrimony.

Also because of the flow of funds that is canalized to the IFIs by Fondo Mivivienda is increasing there is a lot of public concern over a possible "exhaustion" of the funds. In this concern Mivivienda Fund indicates:

"The resources of Fondo Mivivienda are perfectly renewable in time with a proper cost so we do not consider the concept of "exhaustion". To June of 2005 it has been canalized a little more than S/. 1,500 million (US$ 461.54 mill) (60%) out of a total of assets of the FMV that more than S/. 2,500 million (US$769.23 million)".

According to Mivivienda Fund there will be financial constraints in the medium term but only for the small and medium financial institutions. *"..It is not considered that the IFIs have a dependency to the funds of Fondo Mivivienda, especially the major banks. The small IFIs are who mostly need to have access to long-term financing in the capital market"*

The MEF confirmed that *"currently the major banks do not need long-term financing. By contrast the small institutions do need and it is exactly the role of MF to accomplish that these institutions can securitize their assets".*

Although the Bank BBVA indicated that the institution does not have current financial constraints, the institution estimated that there is a probability to have capital constraints in the medium and long term. The institution is basically concern about the low demand for mortgage credits. It is the volume of applicants that hinder them from supplying more loans.

[18] Basel II or the new capital adequacy framework is a series of principles and recommendations made by the Committee of Basel. The Committee of Basel was created by agreement of the Central bank governors and the heads of bank supervisory authorities in the Group of Ten (G10) countries.

"The mortgage business is small; the benefits are in the marginal cost and not in the volume. It is needed a major ***volume of borrowers****"*

According to Bank BBVA the program Mivivienda may guarantee a regular number of mortgage credits which can justify the costs of a SMM. During the interview they qualified the mortgage credits of sectors C and D as attractive; they added that there is not enough **housing supply to these sectors**. Also the MEF pointed out that it is not possible to know if there will be an increase of regular mortgage credits because **the housing supply to these sectors is still small.**

Where the Housing demand comes from?

According with estimations made by the Peruvian Chamber of Construction (CAPECO) in the year 2002 only in Lima Metropolitan area there was a potential housing demand of 1.700.000 and a real demand of 200.000. As shown in the chart, the major percentage of this demand comes from the low and middle-low income groups. Actually in these groups are the households who have more difficulty to have access to the private finance system. The government Housing programs must be effectively targeted to these groups.

Table 7: Housing Demand in Metropolitan Lima (number of households)

Socioeconomic group	Potential Demand	REAL DEMAND
High	102.905	10.452
Middle-high	198.684	47.066
Middle	237.891	46.104
Middle-low	439.320	47.701
Low	703.733	60.359
Total	1.682.533	211.682

Source: Peruvian Construction Chamber, 2002

Is there a lack of stock of lower income housing? What are the reasons?

CAPECO estimations regarding the housing demand and supply in Lima Metropolitan area indicate that housing units priced till US$ 20,000 represent the 78.9 % of the demand and only the 18.1% of the housing supply. (See chart 1 in annexes) This may indicate the lack of stock of lower income housing as the city of Lima concentrates the 29% of the National population.
The Consortium MacroSur[19] representative was asked about the profitability of housing projects targeted to the groups C and D. It was already seen that the highest demand comes from the poorest sectors.
"The projects under the programs Techo Propio and Techo Propio Deuda Cero are not profitable, in opposition to projects under the program Mivivienda. (...) We continue developing them because we have compromises with house buyers since the year 2004. Another reason is that it is a way to keep us into business".

For instance, the construction of the 100-houses project "Nueva Esperanza" started after eight months of documentation. An average of 900 expedients prepared by the Consortium was

[19] Consortium set up by three construction companies. The consortium develops housing projects under the three housing programs namely Techo Propio Deuda Cero, Techo Propio and Mivivienda.

under process of origination and underwriting in different banks. They enter into the process in 6 public callings or "convocatorias" to Techo Propio. At the end of the eight months 99 expedients were approved. After the approval the money was paid out very slowly and in the order each mortgage credit was approved. The Consortium received the money in small amounts and along the process of construction.

Another bottleneck is that during the paying out of the money some expedients are turned down. This situation means that they have to prepared new expedients from different house buyers. Before starting the construction of the housing projects it must be approved as many expedients as houses in the project.
"Many reasons can explain the turning down of expedients: the house buyers withdraw the downpayments because income constraints, the house buyers lost their jobs, etc…and as a result we have to star all over again with new clients"
When asked about how frequent this situation is, the answer was 10 % in each project. The manager director also added that the major problem with red tape is that each bank requires different documentation. As already indicated, the representative of the bank considered that each bank offers different services and facilitates the process according with their own "know how. "*The standardization is not considered as an incentive because the financial institutions are interested in being differentiated. It reduces competition".*

4.7 The Secondary Mortgage Market

What do the National and International organizations say about what a SMM can offer to Peru?

"In March 2005, the International Finance Corporation, the private sector arm of the World Bank Group, has expanded its technical assistance program aimed at improving access to housing finance in Central America and Peru. The government of Peru through its Ministry of Housing, Construction and Sanitation is seeing at SMM as another way of achieving the housing policy objective of promoting broader access to housing finance; and an extension of its 1997 national housing strategy, by giving it financial sustainability"
"According to estimations done by the IFC, Peru would have a Housing demand of 250,000 units per year till the year 2005, which proves that there is the need and the ground for the capital market to be a long-term funding to mortgage finance. These mortgage credits could be given to the borrowers of the Peruvian financial institutions either through a system similar to that implemented in United States (securitization) or through the encouragement to the use of mortgage bonds(letras hipotecarias)by banks".

International Finance Corporation press release

"The benefits of a mortgage-backed securities market are widely known. On one side it allows banks to have relatively cheap and simple access to long-term funds to finance housing ownership, with the multiply effect in the real economy; efficient management of loans and risks; optimum capital flows; and compatibility of needs from demand and supply of long-term resources. One alternative to develop a SMM in our country could be the establishment of specialized companies in the mortgage market that could issue MBS, corporative bonds, and so on."

Peruvian Ministry of Economy and Finance - MEF

The benefits of a SMM were already established in the theoretical framework. Although they are benefits generally agreed by authors and specialists in the subject, the special conditions and performance of specific sectors in a given country are the true factors that could make a SMM rewarding or not. For instance, if some requirements are not in place, as for example a legal framework, the establishment of a SMM could indeed be costly and time-demanding. The results of a bad decision could results in an increase of the cost of mortgage finance to the final borrowers.

There could be many problems in the housing finance of a country, for which already exist many answers and instruments. Also there is not only one form of SMM as in the case of the bond market in Chile. All in all, what matters is if the conditions to develop modern financial instruments are in place and what constraints is the PMM facing. "The adoption of one of both forms of secondary market depend on the needs of Primary Market Lenders and the state of development of accounting and legal systems as well as the housing and bond markets in these countries" (Lea, 1994)

There are basically two possible approaches. The first one is to enhance mortgage securitization. The second is to reshape the basic role of the fund so as to become provider of guarantees for both mortgage origination and mortgage backed-securities issuances instead of being a direct provider of funds for mortgage originations. The future policy direction of the Peruvian government will be crucial in deciding whether homeowners in this country will be able to draw on overseas capital resources to further develop housing.

(The National association of Realtors, The Andean Housing Conference)

Mivivienda Fund pointed out the importance of the position of the major IFIs: "It (SMM) will be supported as the major IFIs estimate convenient to structure its creation". Also the MEF estimate that it must be the market which in order to cope capital constraints will demand capital market funding "…the market will undertake to generate the mechanisms that the law allows". "it should be managed with the criteria that it is the market who will buy the MBS so the instrument must be seen as safe to the investors and that there is a differentiation in the portfolio because of the quality of the assets".

The Bank BBVA representative indicated that a SMM is feasible and will generate a great number of investments in the country. The representative also made interesting remarks about a potential securitization of mortgages. *"The banks prefer that the securitization is managed by the private sector and that some major banks can use this mechanism directly if they need capital funding"*

The representative emphasized that *"there could be problems if it is attempted to mix portfolios, the success of each institution depends on the quality of its assets" The spokesperson further added "the securitization should be administered by each institution because each pool of mortgages will have different price in relation to the own know-how of the institution. The securitization must be done by specialized and private organisms, and the market will choose the portfolio that better match with its appetite for risk"*

4.8 Conclusions

This chapter reviewed the way to a SMM in a developing country. The debate was set on why is the Peruvian Housing Finance so small and analyzed if SMM mechanism is the possible solution to the constraints found in the Primary Mortgage Market.

Peru is facing a strong housing deficit and demand. It hardly accomplishes to deliver affordable housing especially to the poorest groups. The percentage of Mortgage development to GDP shows the shallow of the system, especially when compared to other countries. It is not expected to reach high levels as those of United States or European countries. However achievement of successful Housing Finance development as attained in other developing countries like Chile is not only strongly needed but also eventually reachable.

Since the year 2000 Peru has reached a positive Macroeconomic stability. The average growth rate and the inflation rate between the years 2000-2004 show very encouraging figures. As a consequence the main actors' reliance on further improvement is fairly positive.
Furthermore the capital Market in Peru has been revamped with the issuance of Peruvian Sovereign Bonds which have had positive answer in overseas markets and has given the needed yield benchmarks to the local bond market. However, the political risk is always an attempt to turn down good expectations. The interviews showed the existence of a strong demand coming from potential institutional investors to invest in mortgage-backed securities. However the demand for MBS is constrained by the deep distrust in the legal and administrative systems, especially the judicial system in Peru. The securitization of assets in Peru has already a regulatory framework. Nevertheless the applicability of it is expected to need extra efforts of the government to accommodate and tailored it to the current situation of the country. The distrust in the juridical and judicial systems is a general concern of interviewees.

Various problems were pointed out by lenders and MacroSur Construction Company. The concern of the financial institution about the small low-income housing supply was in part explained by the construction company. The company indicated that Techo Propio projects are not profitable and difficult to gather qualified borrowers. The low purchasable capacity of house buyers makes their approval to loan credit hardly difficult. The lending risk was explained by providing an explanation for each risk. However the main finding was to find that there will be capital constraints in the PMM. SMM can alleviate this problem but in turn demand a strong PMM and an environment appropriate to be developed.

The next chapter is divided in three sections. In the first section the findings gathered in the literature review and in the fieldwork study are summarized. The fieldwork study engaged interviews conducted to key private and public institutions. The findings are related to the factors crucial to analyzed in a SMM development and presented in the order they were structured along the study. In the second section conclusions related to the hypothesis of the research and to the problems/constraints in the PMM are offered. Finally in the third section the recommendations for the situation of the PMM and for the future development of a SMM are suggested.

Chapter 5: Conclusions and recommendations

5.1 Introduction

The most developed model of Housing Finance is Secondary Mortgage Markets. The mechanism gives sustainability to the system by relating the Housing Finance sector to capital markets. The benefits of the mechanism are very attractive: SMM increases the flow of funds to finance housing, even social housing; it transfers lending risks from lenders and borrowers to investors; and it increases housing affordability by boosting competency between primary lenders. However, the mechanism has been proven to be successful only when a complex mix of economical, political, financial and legal factors is in place. The decision about the applicability of SMM must be based on the constraints of the Mortgage Finance System and in the infrastructure and demand of the local capital market. The research study about the appropriateness of SMM was conducted in the real context of an emerging country: The Mortgage Market in Peru. This chapter presents a summary of the findings, the final conclusions and recommendations of the research.

5.2 Findings

The findings are grouped and presented in relation to four factors. Although the main focus of the research was on the analysis of the PMM; the three other factors were pointed out as their performances also influence the deepness of the PMM. In the case of the Capital Market issue, it was taken into consideration as the appetite of investors for mortgage instruments can be a great stimulus to increase efficiency in the PMM.

Macro-Economic and Political Stability. During the period 2000-2004 the increase of the national economic activity at an average rate of 4.6% ranked Peru by a third year in a roll as one of the countries with most growth in Latin America region. The general opinion of the institutions interviewed was very positive due to the lately positive performance of the economy; furthermore the Bank BBVA indicated that there is not an inflation risk threat that could stop the development of a SMM. However, strong concern was showed about the political noise created as the country goes to the polls next year. The political risk remains strong since in the past it has been difficult to achieve policy continuity based on long-term strategy vision.

Capital Market. The Bond Market in Peru has grown during the last decade. However it remains small and with few instruments to invest. There is a surplus of liquidity and lack of long-term investments in the market. On the other hand the government has given the market a yield benchmark by the successful issuing of Sovereign Bonds which is considered by the Bank Association an incentive to the future development of the market. It can be implied by the opinions of the interviewees that there is an investors' appetite for the mortgage instrument; however there is a deep concern about the future risk managing of the instrument.

Legal and Regulatory Framework. The securitization of assets in Peru has already a regulatory framework: The Law of the Securitization Market of 1996, and the Regulation of Asset Securitization Processes of 1997. This legislation has legal definitions of a trust, a Special Purpose Vehicle and an investor. However, the setting up of an appropriate legal and regulatory framework is sophisticate due to the legal complexities of mortgage securities and specialized institutions. The applicability of the existent framework will demand further efforts to customize it to the current situation in Peru. Furthermore, complex processes that demand institutional coordination are seen as bothersome. Different incentives related to taxation demanded by institutions were pointed out which demonstrated that there are still possible improvements to be made. The MEF showed the clear position of the government that there will not be other tax exemptions apart form the already present.

The distrust in the public institutional management is a major constraint in Peru. It has been a deterrent to achieve legal and judicial systems strength. Although the present management of the institution has a positive public acceptance, the Bank BBVA indicated that there are already uncertainties about the future character of MF by the year 2006.

Primary Mortgage Market

There is not a strong Primary Mortgage Market. Comparisons in the Latin America region show the shallowness of the Market. In Peru the value of Mortgage credit to GDP goes just to 2.9 % while in Chile and Panama this value goes beyond 10% to GDP. Mivivienda Fund was created to incentivise the Primary Mortgage Market related to groups B, C and D. MF provides easy and cost-effective sources of financing to lenders. MF takes over the credit risk but not the maturity and interest rate risk of the credits.

Moreover, the Peruvian Primary Mortgage Market is constrained by difficult aspects. The limitations of PMM development in Latin American region has been broadly discussed by international agencies. The shared opinion pointed out that the low purchasable capacity of borrowers and the low flow of funding capital are the principal factors The Peruvian experience may indicate there are also other causes: there is an insufficient low-income housing supply; there are serious limitations to realize and execute collateral.

The PMM faces a strong need for increase low-income housing affordability.

The Peruvian Housing Market is facing a strong housing deficit and demand mainly coming from the poorest groups. Peru's housing deficit is estimated at 1.3 million housing units (74% quantitative deficit and 26% qualitative deficit) it is necessary to build 90,000 housing units annually to alleviate the housing problem of the population. The recently launched saving-based subsidy programs “Techo Propio” and “Techo Propio Deuda 0” are intended to increase affordability of socioeconomic sectors C and D which were excluded from the financial system because their low purchasing capacity. The “Bonus to the good payer” incentive is seen as a reason for the low morosity rate of still young loans.

The research strategy to find out if the PMM is facing constraints that a SMM can alleviate was grouping them according to the financial solutions offered by experts and international experience. The problems/constraints of the lending system were set in 3 groups:

I. Credit risk, problems to execute and realize collateral and high administrative costs.

Credit Risk. The low purchasing capacity of families due to low and instable incomes is one important reason for the small mortgage market. Moreover in Peru during the last years there has been an increase of households that depend of eventual jobs, especially the poorest groups. Only 30% of householders in Lima Metropolitan in the income groups B and C have a stable job and can prove regular income “The subsidies are an attempt to solve the problem of low purchasing capacity” (IDB, 2004). By the year 2002 Mivivienda Fund had only assigned 20% of its funds. Currently MF has channeled almost 60% of its funds which may be explained by the launching of the program Techo Propio, similar to the Chilean saving-based subsidy program. The program assists first-time-house-owners with a direct one-time subsidy per household. Several modifications have been done to tailor the requisites to the purchasable capacity of low-income households.

Execute collateral and realize collateral. The difficulties in the use and recuperation of collateral when default occurs are one of the major reasons of the small mortgage finance development. (IDB, 2004) Authors point out two possible major constraints. The first one, the lack of property titles and the deficiencies found in property registration systems is being faced by the government since the last decade by "the largest government titling program targeted to urban squatters in the developing world" (IDB, 2004). The second one, the execution and realizing of collateral remains a very strong constraint. This factor is seen as one of the major threats within the system not only on the side of lenders but also on the side of institutional investors who see it as a deterrent of the lending system.

High administrative cost and time-consuming red paper. The red paper of Mivivienda Mortgage credits is costly and abundant. The aspects considered possible to be standardized were the general clauses in the loan contract and calculations routines (payment schedule). A total of 50% of the mortgage credit applications declined in the front office in the case of BBVA Bank may suggest the difficulties that house buyers find to gather and complete correct document to apply to MV mortgage loans, especially to Techo Propio credits. However, standardization in the underwriting process was not considered needed as it is perceived by the institutions to reduce competition in the financial system.

II. Liquidity risk and Interest Rate risk

Interest Rate Risk. In Peru the interest rates are determined by the market and depend basically on political and economical factors. The recently achieved economic and political stability have created positive attitudes in this matter by the Bank Association ASBANK. The IDB pointed out the cases of Chile and Colombia who successfully developed mechanism of indexation. Because of their variations of interest rates come mostly from inflation variations, the volatility of the interest rate is relatively modest. None of the private institutions manifested to know the mechanism. Other financial tool employed as a protection against inflation is the use of different currencies in the denomination of mortgages credits. However the IDB indicates that it creates a new risk, because borrowers with incomes in the national currency can not counteract the currency risk. The Peruvian Mortgage market is very "dollarizado". The program Mivivienda has 92% of its placements in dollars and the rest 8% in new soles.

Liquidity Risk. Financial Institutions use short term savings which are mostly instable to finance long term mortgage loans. It creates a mismatch of terms risk. Consequently in order to cover it, the financial institutions increase the cost of mortgages credits. They will add a "risk premium" which in turn worsens the affordability of the poorest groups to get a credit. However Mivivienda Fund is currently given liquidity to the system through a subsidized line of credit to private financial institutions (IFIs). These funds are channelled to the IFIs through the Development Financial Corporation-COFIDE. By June 2005 the institution has channelled 60% of the available funds. The concerns raised on the future sustainability of the mortgage lending system.

III. Undercapitalized Lenders

Capital constraints were found in the small and medium lending institutions. The major four banks which represent the 62% of the lending activity are not capital constrained. Because of growth in the economical and financial sector is expected to continue these major institutions will probably look at capital market to funding.

5.3 Conclusions

The Mortgage Finance System remains small in Peru. Although the great importance of the System in relation to the Housing Sector, it has not achieved to greatly increase the affordability of low and middle-low income housebuyers. The Peruvian Government has launched three Housing Programs targeted to the socioeconomic sectors B, C and D. The creation of the National Mortgage Fund Mivivienda as the core institution of the Mortgage Finance System in Peru has just recently started to create positive answers. By June 2005 the institution has channelled 60% of the available funds It is necessary to implement modern mechanisms that could incentive the private sector to continue providing the mortgage market with an engine for growth.

The Mortgage Finance System in Peru requires a Secondary Mortgages Market to achieve sustainability and increase housing affordability. The sustainability of the Mortgage Finance system can only be achieved by tapping long-term financing sources from the capital market. International organizations like the World Bank have recommended implementing a SMM. However, Peru needs to attain a strong Primary Mortgage Market. The lending activity must assure a high volume of high-quality mortgages loans. Without that condition in the PMM, the housing sector will not be able to be benefited by the great advantages of SMM. Furthermore, **the Primary Market is facing problems and constraints for which the SMM may help but for which there are other not so complex and costly available solutions to implement**.

In the medium-term small and middle financial institutions are expected to require a financial mechanism to funding their lending activity. In the middle term, in the absence of subsidized lines of credit channeled by MF, there will be a risk by exposing capital constrained medium and small IFIs to an environment dominated by the major IFIs. The major IFIs are expected to fund their lending activities and control the market, which may cause an increase in the interest rate borne by borrowers who will be at the mercy of them. Furthermore as the Primary Market is expected to mature and the Economy to grow, the major four financial institutions will eventually, in the long term, become capital and/or liquidity constrained and look to the capital market to funding. However one of the four major financial institutions indicates that if a SMM is developed they will prefer a private sector operation of the mechanism. The major IFIs represent the 62% of the lending activity under Mivivienda programs.

Peru needs to achieve a strong PMM. Although the lack of long term funding is an issue that can impede development, the growth path starts with the lending activity. The volume of loans must first reach a critical mass before making efficient of capital market instruments. There must be a plenty volume of quality loans that guarantee the constant issuing of mortgage instruments. Furthermore the loan instrument must be an attractive investments to institutional investors. The managing of risks is critical to create the appetite for the financial instrument.

In addition, the importance of housing in a emerging country with a strong housing deficit makes the sector an important engine to increase the reliance of the population in the government policy direction. The further development of the PMM is not only an essential prerequisite to a future implementation of a SMM but also a path to strength the reliance of the private sector and civil society in any government initiative is going to be taken. The Peruvian government can act-through laws, regulations, administrative practices, taxes, and efficient and transparent subsidies-and adopt policies that define the fundamentals of the housing sector.

In Peru the conditions are not adequate to set up a Secondary Mortgage Market.
Peru also needs to reach an adequate environment for a SMM development. The current economical and political stability needs to be kept favourable in time. The legal framework needs to be shaped to incentive the market. For the capital market attractiveness of the mechanism, the instrument needs to achieve a good risk qualification.

Furthermore any unrealistic proposal according to what is happening right now in the Peruvian context, of still incipient PMM, would be neither successful nor lasting, defining success in two meanings: the real increase of housing affordability for low income house buyers by creating an efficient PMM and the acceptance from the private sector (institutional investors, financial institutions and developers) of the mechanism by creating an adequate environment and an attractive investment opportunity. Since 1999 Mivivienda Housing programs have suffered various changes in their guidelines in order to be tailored to the Peruvian context and the actors' behavior. This may suggest that any new mechanism to be developed needs time to accommodate. Just in Chile, according to Titulizadora Colombiana (2005), it took four years to the instrument to be known, two years to overcome problems and since 2001it has begun a process of consolidation.

The route is a complex and time-consuming process. Because of the procedure needs to be slow and considered works in progress, the conditions urge to start being built. However, choosing the right options for a given environment may speed up the process. The role of the government is to decide on proper law and regulation in order to assure the economical and political stability, encourage the capital market to invest in a SMM and promote the growth of the PMM.

5.4 Recommendations

Macroeconomic environment. The required macroeconomic and political stability needs to be supported by long-term vision Government Policy. In this sense the "National Agreement" is a good mechanism to harmonize policies and encourage the continuity and participation of all political parties, the private sector and the civil society in the national policy direction.

Capital market. Capital Market needs to continue being encouraged by legislation and regulations. The issuing of Sovereign Bonds is suggested to be an encouraging tool of investment in national currency.
There is a potential demand for long-term debt instruments from institutional investors; one possible encouragement is to lessen restrictions in debt instruments investments.
The loan instrument requires being a marketable product, for that it needs to reach the risk qualification demanded by the investors through the reduction in the lending risk, also to attract those who are not currently interested in the financial instrument.

Efficient Banking System. It is imperative to reduce the lending risk and to encourage competitiveness in order to both increase households' affordability and encourage the profitability of the business to financial institutions.

The lending activity is requiring an increment in the demand for loans. Concerns on the small low-income Housing Supply suggest the necessary intervention of the government through a favourable legal and regulatory framework to encourage the participation of the private developers in the low-income housing market.

. **Credit risk, problems to execute and realize collateral and high administrative costs.**
The participation of the government through subsidies needs to be prudent and targeted only to the sectors in real need. Subsidies need to be transparent and direct and be considered an ultimate resource. Despite the low incomes of sectors C and D, there is strong housing ownership that may demonstrate that households can afford a house along the time. The government must focus on the encouragement of the participation of these sectors in the mortgage finance sector.
The Peruvian government has given to MF special faculties to offer credit insurances to the financing system. It is suggested to further examine this mechanism in order to avoid exposing the government to considerable liabilities if it is not properly structured. Private innovative practices in credit insurance can be taken from international experiences and be adapted according with the know how of the private financial institutions. In a future SMM is likely to help solve this problem.

Two legal practices, the Chilean “financial leasing” and the trust contract (or fideicomiso) were presented as facilitators of expropriation processes. It is necessary to modify the mechanism used in Peru to overcome problems about delayed processes. It is suggested to further analyze both options and find a tailored option to Peru. It could be suggested an alternative where the ownership of the new house is kept with a third party in a costly-effective way till the borrower finishes paying back the debt. Considerations about the juridical certainty to the housebuyer need to be taken.

Standardization is needed to facilitate bothersome and costly processes. Any initiative of the government is recommended to be well communicated and structured. It is necessary to avoid misconceptions about the possible reduction of competitiveness in order to be a whole process in all the financial system. Technological innovation in the process is suggested to be looked from international practices.

. **Liquidity risk and Interest Rate risk**
It is suggested to promote competition between financial institutions to lower interest rates. One possible approach is by a well-structured and agreed standardization of credits.
The high dollarization of the system needs to be tackled, it is recommended to persuade borrowers of the benefits of opting for credits in soles. Another alternative is to reduce the interest rate in loans in soles to attract the demand.
It is suggested to look to other good examples like the Mexican double-indexation as a future step and possible answer to interest rate risk.

Finally, it is implied that the initial steps of the government to a SMM development by giving to MF roles of issuer and insurer seem anticipated when a there is still a pendent agenda to consolidate a not strong enough PMM. Concerns must be primarily focus on the necessary volume of standardized loans that justifies the high costs of mortgage instrument issuing. However, it is possible and strongly recommended to speed the process to a future SMM development by planning regulation in a public-private partnership basis.

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Annexes

Table 8: Real Housing Demand and Supply in Lima Metropolitan (By percentage)

Housing Price in US$	Housing Supply	Housing Demand (number of households)
Till 10,000	5.4	**43.0**
10,000 to 15,000	3.2	**21.2**
15,001 to 20,000	9.5	**14.7**
20,001 to 30,000	24.2	11.3
30,001 to 40,000	16.5	4.1
40,001 to 50,000	9.9	3.1
50,001 to 60,000	10.3	1.2
60,001 to 70,000	3.9	0.1
70,001 to 80,000	1.9	0.5
80,001 to 100,000	4.3	0.2
100,001 to 120,000	3.1	0,0
120,001 to 150,000	1.9	0.2
150.001 to 200,000	4.0	0.3
200,001 to 250,000	1.4	0.0
250,001 to 300,000	0.4	0.0
300,001 to 500,000	0.1	0.0
More than 500,000	0.1	0.0

Source: Peruvian Construction Chamber CAPECO
Elaborated by APOYO Institute

Table 9: Socioeconomic Groups – Characteristics of Households in Lima city.

Socioeconomic Group	Monthly Income per household (average)	Number of Households	Number of people
A	US$ 697	60,200	209,200
B		299,100	1,204,900
C		516,100	2,298,700
D	US$ 192	556,200	2,587,500
E	US$ 143	392,100	1,901,600
		1,823,700	8,201,900

Source: APOYO - Opinion and Market (2002)

Box 2: Mivivienda Fund becomes a Public Limited Company

Mivivienda Fund (Fondo Mivivienda) becomes a Public Limited Company (Sociedad Anonima), September 9th 2005.

The recent publication of the Law 28579 allows Mivivienda Fund to become a Public Limited Company which is to say a state- owned company with the faculty of increase its own capital and guarantee the availability of funds aimed to the financing of new housing loans. This new company will stimulate the acquisition, renewal and building of new houses.

A Dynamo for the housing sector

My Housing Fund has achieved its purpose of energize the mortgage market and keeps working to further development. In becoming a public limited company has get the possibility of using different financing sources for new loans and the opportunity to make that important private investors as private pension funds, life insurance companies and mutual funds channel financial resources to the mortgage market through safe and profitable investment.

Some features of the newly created company will be:

- Have a subsidiary role as stated in the article 60 of the Peruvian Constitution.
- Be a company with the Peruvian state as his only shareholder.
- Have special faculties to offer credit insurances to the financing system and will be able to issue securities exclusively for the housing financing market.
- Be supervised by

    1. The National Finance Fund for the State-owned Companies (FONAFE) for being a public- owned company.
    2. The Superintendence of Banks, Insurances and Pension Funds (SBS) for all the financing operations; and
    3. The National Supervisory Commission of Companies and Securities (CONASEV) for all the stock market operations.

Aims of the company

- Lighten the Peruvian government burden, involvement and influence.
- Keep the energetic activity achieved in the mortgage primary market.
- Get greater competence end efficiency in the creation and issuing of mortgages aimed to housing financing.
- Develop strategies to encourage saving among the population as the way to procure a home.
- Set the grounds for the development of a secondary mortgage market that would
    1. Procure private financing to the housing market.
    2. Develop the local capital market.
    3. Assure continuity and quality in the service given to the investor.
    4. Procure standardization and liquidity through securities.

Source: El Comercio newspaper
http://www.elcomercioperu.com.pe/COM/mivivienda/Html/2005-08-01/Artic0346693.html

Box 3: General Structure of interviews

1. Condiciones MacroEconómicas (Macroeconomic Environment)
¿Cuál es la opinión del Fondo Mivivienda respecto a la estabilidad de la economía peruana?

¿En que medida el Ministerio de Economía y Finanzas es responsable en el proceso de titularización de hipotecas?

2. Marco Legal (Legal and Regulatory Framework)
¿Es posible garantizar que el Fondo Mivivienda como Sociedad Anónima tendrá carácter despolitizado y así crear confianza en el Mercado privado que existirá continuidad de los actuales programas? ¿Como?

¿Existe un margen de indefinición de los linderos de responsabilidad entre los organismos (CONASEP y SBS) que supervisaran al Fondo Mivivienda?

¿Existen un riesgo crediticio y riesgo operativo por la diversidad de funciones que se le esta dando al Fondo Mivivienda (titulizador y asegurador)?

¿Se le impondrá al Fondo una calificación de riesgo como entidad al igual que a las IFIs? (diferente de la que tenga en la emisión de valores)

¿Que diferencias existen entre la emisión de bonos en Chile y la titularización de hipotecas en México? Porque Perú esta siguiendo el formato Mexicano/Americano?

¿Existen o se darán incentivos a la banca para impulsar que las IFIs empleen sus propios recursos con la venta de hipotecas titularizadas?
1. Que la transferencia de los activos en fideicomiso no se encuentre gravada por el IGV
2. Se ha normado que los intereses de los bonos de titularización estén exentos del pago del Impuesto a la Renta? Otros?

3. Mercado Primario (Primary Mortgage Market)

Problemas de liquidez

¿Para cuando se estima el agotamiento de los recursos del Fondo? ¿Qué porcentaje ya se ha transferido a las IFIs?

¿Para evitar la dependencia de las IFIs a los fondos de Mivivienda, que instrumentos se están adecuando para vincular el mercado de capitales y el mercado de créditos hipotecarios para la vivienda?

¿Se estiman las mismas dificultades para la aceptación de títulos valores respaldados por hipotecas que se encontraron con la venta de letras hipotecarias que dejaron de existir (falta de cartera homogénea de créditos hipotecarios, aversión por mayor costo de fondeo)?

¿Necesitan los Bancos mayores de instrumentos financieros para captar fondos destinados a otorgar créditos hipotecarios? ¿Que IFIs carecen de un mercado interno desarrollado de instrumentos para captación de recursos de largo plazo?

Volumen de la cartera

Existen las condiciones para un crecimiento de emisiones periódicas y de magnitudes razonables de créditos hipotecarios en los sectores C y D que justifique los costos de un mercado secundario de hipotecas?

Calidad de la cartera hipotecaria:
Administración de Riesgos

¿Que características tiene el producto CRC y administración del PBP? Una buena administración de riesgos se traduce en una baja de los intereses bancarios a los créditos hipotecarios?

¿Que medidas se están tomando para incentivar los créditos en moneda nacional? Cuales son las implicancias de la solarizacion de los créditos?

Se maneja la posibilidad de la doble indexación de créditos siguiendo el modelo mexicano? Porque?

Estandarización de los créditos hipotecarios

El producto EFIC que aspectos trabaja para la estandarización documentaria de los créditos?

1. Cláusulas generales para los contratos de préstamos hipotecarios
2. Las rutinas de cálculo (cronogramas de pago de los bancos)
3. Pautas de evaluación crediticia (parámetros para evaluar la capacidad de endeudamiento del solicitante del crédito y la formalidad de los ingresos)
4. Formulas de amortizaciones disímiles
   Otras

¿La estandarización se daría solo para la nueva cartera o se aplicaría a toda la cartera existente?

4. Demanda de títulos valores respaldados por hipotecas (MBS Demand)

¿Qué inversionistas institucionales han mostrado su interés en la compra de MBS?

¿Cual es la demanda por instrumentos financieros respaldados por hipotecas?

¿Que potencial competencia existiría en el mercado de capitales para la venta de hipotecas titularizadas? (Otros bonos mas seguros)

¿Serviran los Recursos del programa COFICASA también para la adquisición de instrumentos hipotecarios?

Elaborated by the author.