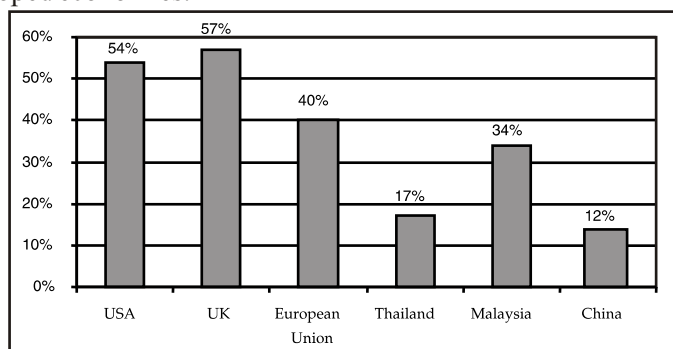


Residential Mortgage Backed Securitization: The Market Oriented Alternative for Funding Housing in India

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INTRODUCTION

Housing is not only responsible for improvements in quality of life but also plays a vital role in the overall economic development through its forward and backward linkages. The housing sector accounts for a significant share of economy in developed economies.

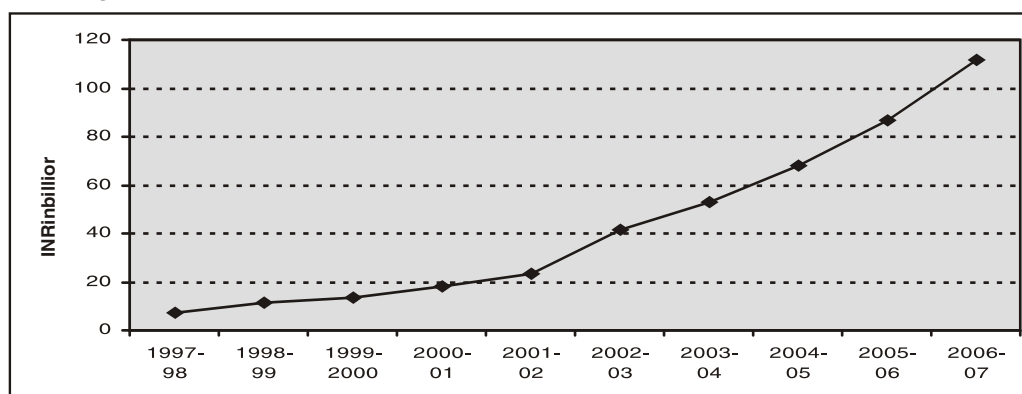


According to the Confederation of Indian Industries (CII), the housing sector has forward and backward linkages with about 280 industries, and a 10% increase in spending in the construction sector can push the gross domestic product growth by 3%.

TRENDS IN HOUSING FINANCE IN INDIA

In developing countries, housing is a major economic, political and social issue. In India, the housing sector has assumed importance in recent years on account of investment demand and housing shortage in the country. In terms of 2001 Census data on housing, the number of houses, at 249 million, grew by 27.70% in a 10-year period, outstripping population growth of 21.30%. While this is quite indicative of the significant improvement in housing situation, the housing shortage has been estimated at 22.40 million.¹

The housing sector provides a relatively sound area for credit on account of lower default rates in housing finance. Consequently, housing finance serves the dual purpose of leading recovery and providing a safe avenue for assets of banks and financial institutions, not only during periods of industrial slowdown but as strategic destination. The Government of India realizing the tremendous potential of the housing sector has come up several fiscal incentives to facilitate the growth of the sector. This has resulted in stimulating the growth of housing finance significantly. The 10th Plan has estimated an outlay of Rs. 7,26,300² crores to housing sector, of which the contribution envisaged from institutional sources is Rs.4,15,000 crores.



Source: National Housing Bank

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¹NBO Statistics based on 1991 Census

²Tenth Five Year Plan Document, Planning Commission

With the outstanding housing loans of banks and HFCs being to the tune of about Rs.300,000 crore, the steady growth in the sector is quite visible. The compounded annual growth rate (CAGR) of housing finance being 46.40% for the period 2000-06, it is expected that the housing finance business would continue to grow significantly over the next few years.

Despite such high rate of growth, the capacity of institutional sources to meet the demand for housing finance is limited. It may be observed that the capacity of the domestic institutional sources in India may not be adequate to meet the demand for housing. Renaud³ (1998) has captured the relationship between urbanization, housing investment and national wealth. He points out that the world's rate of urbanization is reaching a peak, in particular in China and India, and as a consequence, the need for additional resources for this sector is increasing. This raises the logical question: *where will these resources for housing come from?*

THE ROAD AHEAD: SOURCING THE CAPITAL MARKET

While directed credit programmes of the pre-1990s have now faded considerably giving way to increased market orientation, efficiency in funds management both in mobilization and deployment of funds has clearly emerged as the hallmark for success in business for all institutions. Capital market reforms are now at centre stage and the market is emerging as a central source of resources for the sectoral economies. Cost-effectiveness in mobilizing resources is increasingly proving to be the real cutting edge of the business of financial institutions and their competitive rates on lending offered to the ultimate borrowers is the determinant of their ability to serve the market and survive in a progressively deregulated environment.

Indian debt market has traditionally lacked long term funds. This has had adverse impacts on activities such as housing finance which require longer term resources. While historically this has been a primary reason for Commercial Banks not having evinced interest to lend for housing, the dedicated institutional channels such as housing finance institutions (HFIs) have had to largely rely on shorter term sources such as public deposits for meeting their fund requirements. This has often resulted in funding longer term housing finance assets with relatively shorter term liabilities thereby resulting in an asset-liability mismatch.

In fact, tapping capital markets through securitization, has assumed critical significance in the aftermath of the south-east Asian crisis. The crisis has highlighted the inherent fragility of a policy environment that fosters funding of long term investments in real estate, housing and infrastructure through short-term credit, leaving them highly vulnerable to maturity mismatch risks. It may also be worthwhile to recount that the failure of many Savings and Loans Associations in the United States of America (USA) in the 1980s was due to excessive interest rate risk associated with using short-term deposits to fund 30-year fixed rate loans.

OBJECTIVES OF THIS PAPER

The main objectives of this paper are to:

- ♦ Highlight the significance of gap in sourcing funds for the housing sector.
- ♦ Explain the importance of securitization to address the needs of the housing sector.
- ♦ Present the Securitization Process.
- ♦ Discuss the history of securitization in India, its international trends, the present limitations and the way forward.

METHODOLOGY

The basic features of the securitization process, its evolution and its trends in India was studied based on secondary data collected from the National Housing Bank (NHB), Housing and Urban Development Department (HUD) USA, Federal National Mortgage Association (USA), Federal Home Loan and Mortgage Association (USA), Citibank, and Office of the Federal Housing Enterprises Oversight (USA).

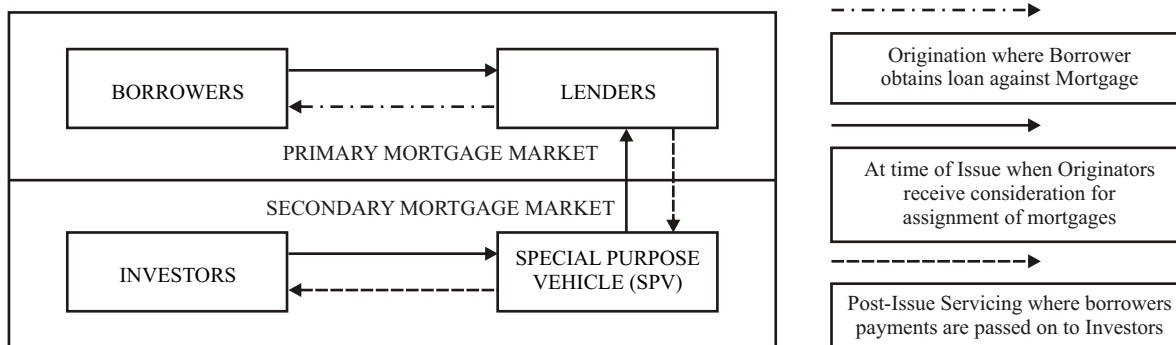
THE SECURITIZATION PROCESS

The process of converting loans or future receivables into negotiable securities or assignable debt is called 'securitization'. In generic terms, it is an off-balance sheet financing technique, with a primary objective to mobilize resources at a comparatively lower cost from a wider investor base by transferring the loan portfolio from the balance sheet of the originator to the investors. The packaging of designated pool of housing loans held by a financial intermediary and the subsequent sale of these packages to prospective investors in the form of tradable securities is termed as 'Securitization of Mortgages'. The transactions in the securitization process occur between the parties in the primary and secondary mortgage markets.

The primary mortgage market activity mainly comprises creation of mortgages as a result of transactions between

³ Renaud, Bertrand. 1998. "Financial Markets and the Financing of Social Housing. The View from Developing Countries." *Urban Studies*, Guest Editor Hugo Premius. Nov. 1998

the borrowers and primary lenders. The primary lenders create mortgages against loans provided by them to the purchasers of houses. The mortgages held as assets generate cash flows represented by repayments of both principal and interest, on the loans.



The secondary mortgage market mainly involves the conversion of mortgages into tradable financial instruments and the sale of these instruments to prospective investors. The mortgages along with cash flows from the borrowers, are transferred to an intermediary agency (Special Purpose Vehicle or SPV) designated for the purpose of managing the bought over pool of mortgages. The mortgages are converted into securities that are tradable financial instruments and sold to investors. The secondary mortgage market is thus made up of securities that are backed by residential mortgages (Residential Mortgage Backed Securities - RMBS) and refers to the transactions between the issuers and investors. Securitization is thus a process constituting the following main transactional activities, namely;

- Pooling: Selection of pool of home loans;
- Purchase: Purchase of the Pool by the SPV;
- Packaging the Pool into tradable Securities (by SPV);
- Pricing of the Securities;
- Placement of Securities (offered to investors by SPV/issuer); and
- Post- Issuance Payouts, Servicing and Administration of Pool Cashflows;

The SPV is a critical link in a securitization chain which imbibes credibility to the securitization structure. SPVs are legal entities created for a specific purpose. They may be Trusts or Companies established for a limited purpose to manage the post-servicing operations and ensure protection of investor interests.

SECURITIZATION: POTENTIAL TO BENEFIT FINANCIAL INSTITUTIONS

Mortgage backed securitization facilitates all participants in the housing finance system viz. lenders (originators), investors in capital market and the borrowers of home loans.

Better Balance Sheet Management: Securitization, as a means of off-balance sheet financing, addresses a number of endemic financial issues, notable ones being the incidence of asset-liability mismatch, capital adequacy, interest rate risk and default risk. It facilitates Banks and Financial Institutions to better satisfy the risk-weight norms and to release their excess capital for further lending. The costs and benefits of a securitization transaction and related pro-forma effects on Balance Sheet of a financial institution is given as *Table 1*.

Alternative Funding and Providing Upfront Liquidity: Securitization offers an effective and relatively quick liquidity as an alternative funding source.

Funding without affecting Gearing ratio: Securitization is an off-balance sheet funding alternative. It generates cash for the originator without any addition to borrowings thus without increasing the debt to equity ratio.

Capital Relief: The risk weighed mortgage assets goes out of balance sheet of the originators thereby enhancing the Capital to Risk Assets Ratio (CRAR). The upfront liquidity provided by securitization can be redeployed in business without corresponding increase or use of capital.

Decrease in Cost of Funds: Increased specialization in securitization transactions leads to reduction in overall costs. The costs of funding sources also tend to be aggressively lower than that normally attainable by the originator through issues of traditional debt instruments.

Enhancement of Housing Finance Business due to better Asset Liability Management: A major beneficial attraction of securitization is that as the securities are reliant on the receivables to pay down principal and cover interest, the funding is perfectly matched. As a result, securitization can enable a bank or a financial institution to write more housing finance business than it otherwise might do without using this mechanism.

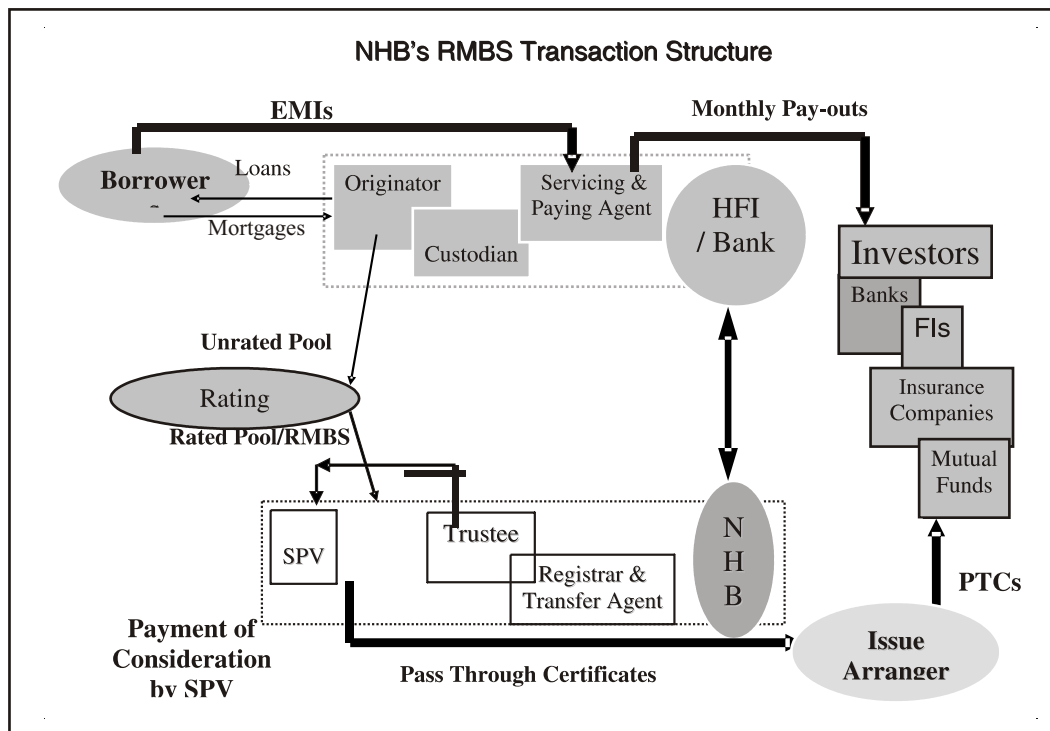
Enhancement of Originator Income: Securitization structures can be designed such that a part of the interest receipts from borrowers can be retained by them even after securitization. Thus while on one hand after securitization, the banks and financial institutions receive the consideration for sale of assets which enhances their liquidity, on the other hand they are enabled to retain a part of the income accruing from the securitized assets.

Fee based Income for Originators: The process provides scope for banks and financial institutions to assume specialist role of the Servicing and Paying Agent for handling the collection, payments and administration of the pool of securitized housing loans, for fee-based income.

Product Enhancement for better Competitiveness: Securitization introduces a range of specialist roles such as issuers, administrators, credit enhancers, pool insurers, etc. to handle different the activities in the process. With better maturity matching, risk diversification and better capital allocation, the mechanism facilitates reduction in EMIs to borrowers in terms of enabling loans with long term structures and/or lower interest rates. It also facilitates better design of other features as per specialized needs of home loan market.

RESIDENTIAL MORTGAGE BACKED SECURITIES: TRENDS IN INDIA

While securitization is a multi -disciplinary process involving legal, regulatory, capital market related and operational issues, mortgage backed securitization assumes greater complexities in India view of structural weaknesses in our systems. The process is driven by a number of factors and considerations involving the commercial, financial and the economic interests of the parties involved in the transaction. The process is thus largely dependent on policy environment for enabling its development on sound lines.

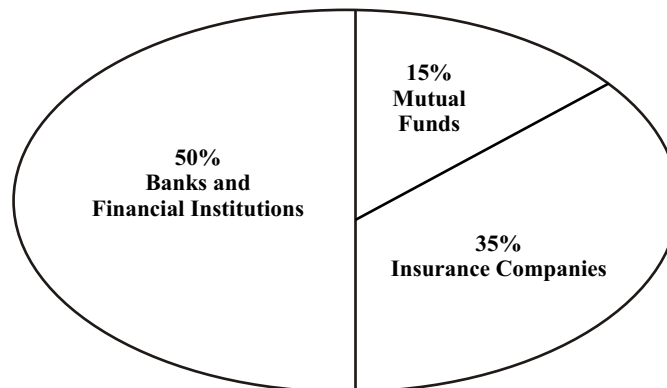


History

The process was embarked in India after detailed study of the successful securitization models world over, and research in the areas relating to legal, financial, regulatory and market related aspects. With the amendments to the National Housing Bank Act, 1987, effected during June 2000, the first pioneering issues of RMBS were launched in the Indian capital market during August 2000 by NHB. These initial issues enabled a platform for the HFCs, banks and other financial intermediaries to securitize their home loan portfolio. Following the launch, NHB completed fourteen RMBS transactions involving housing loan assets of 6 HFCs and one commercial bank to the tune of 862 crore. These transactions have also led to initiatives in the field by other institutions such as ICICI Bank, Citibank, ILFS Trust, UTI Asset Management Company, IDBI Capital Markets Ltd., etc. for securitizing mortgage loan portfolio.

The major categories of investors in RMBS issues have largely been the Commercial Banks and Financial

institutions, Insurance Companies and Mutual Funds.



Source : NHB

Slicing Cashflows to cater to the Specialized Investment needs of the Investors:

The investment needs of each category of investors are varied. While RMBS has the potential to cater to the specific needs of each category, the absence of depth in the secondary market have been posing limitations. As a result, the endeavours of the issuers have been to design RMBS papers keeping the requirements of all the above segments of investors. To that extent, the design of RMBS products have been exhibiting standardized characteristics with very few improvisations. All the RMBS Issues in India so far have been only Pass Through Certificates (PTCs) with sequential structuring of cashflows resulting in two or more classes of the instrument. For instance, the structured RMBS have ranged from 3-year to 12-year classes of PTCs.

INTERNATIONAL TRENDS

About 75% of the global volumes in RMBS originated from the USA. Securities issues by the Federal National Mortgage Association (Fannie Mae), Federal Home Loan Mortgage Corporation (Freddie Mac) (both are better known as Government Sponsored Enterprises (GSEs)) being the largest intermediaries in the RMBS market in USA, constituted over 60% of the debt market. With the rapid growth of the primary housing loan market from about \$50 billion outstanding to an estimated \$7 trillion (year 2006) in the last decade, the institutional framework is in the process of adjusting to the high volumes. The growth of the mortgage-backed securities (housing loan backed securities) market in USA has been rapid. In the last decade, the market has grown from about \$50 billion outstanding to an estimated \$5 trillion (2006) constituting about 70% of the primary residential mortgage loans. This implies that two out of every three housing loans which is generated in USA has been securitized.

While Fannie Mae and Freddie Mac deal only in prime housing loans viz. good credit worthy borrowers complying with high lending standards, the private conduits largely transact in sub-prime loans viz. loans which do not conform to the lending standards stipulated by the GSEs. With the last two years having witnessed extremely high defaults in sub-prime primary mortgage market, the impact was felt in the securitized papers. A large number of institutional investors in RMBS papers lost heavily. This was followed by a crisis of mammoth proportions affecting large investment banks such as Lehman Brothers, Merrill Lynch, Citibank, etc. consequently leading the US economy towards recession.

CONSTRAINTS FOR RMBS IN THE PRESENT INDIAN ECONOMIC SCENARIO

The process was embarked only seven years ago in India. In view of the complexities involved in RMBS transactions and in the process of an emerging policy environment, the task of development of secondary market for mortgages has been a challenging one. Further, just when the market was showing signs of expanding, the global sub-prime mortgage crisis enveloped the policy environs of Indian regulatory bodies thereby slowing down the process of securitization. While it is imperative that the policy milieu needs to work towards a completely safe and sound process in order to safeguard the interests of the investors, it is necessary to understand that the Indian residential mortgage environment does not have any direct or indirect linkage with the international mortgage markets. Therefore, it will be imprudent to assume that such a crisis will have any bearing on Indian mortgage sector. With the Indian housing finance market demonstrating its robustness time and again in terms of its high efficiencies in recoveries (to the order of over 97%), it is high time that the process is put back on the rails once again.

For sustainability and efficiency considerations alone, no financial system can afford to overlook the

potential of securitization for very long. The case for evolving securitization as a mechanism to multiply resources for the housing sector in India is strong. While the success of the previous RMBS issues has significantly provided means to better understand and address various legal, regulatory, fiscal, accounting and other capital market related issues, the development of a secondary mortgage market in India will largely depend on the ability to design and launch market friendly products in future.

SCOPE FOR FUTURE

The process of development of secondary mortgage market has significant potential to benefit the banks and financial institutions in their capacities as both originator of home loans as also as investors in RMBS. While the banks and financial institutions are increasingly becoming active in the housing finance business in the present scenario, this mechanism seeks to enable the institutions to systematically enhance their volumes and compete effectively.

Table 1

| PROFORMA EFFECTS OF SECURITISATION | | | | | |
|--|--------------|-----------|-----------------------------|-----------------------|----------------------|
| | Type A | Type B | | Before Securitization | After Securitization |
| RMBS | 90 | 10 | Assets | | |
| Yield on Mortgage Loans | 10.00% | | Cash Bank | 100 | 100 |
| Yield on Investments | 8.00% | | Mortgages | 500 | 490 |
| Yield on Other Loans | 12.00% | | Investments | 200 | 210 |
| PTC Rate | 6.00% | | Other Loans | 1500 | 1500 |
| Funding Rates | | | Total | 2300 | 2300 |
| Deposits | 7.00% | | | | |
| Debt | 6.75% | | Liabilities | | |
| | | | Deposits | 800 | 800 |
| Tax | 35.00% | | Debt | 1100 | 1100 |
| | | | Other Liabilities | 100 | 100 |
| Additional Income due to Securitization | | | Equity | 300 | 300 |
| Servicing Fee Income | 0.25% | | | 2300 | 2300 |
| Residual Income | 3.68% | | Interest Income: | | |
| | | | Investments (Income) | 16 | 16.8 |
| | | | Mortgage (Income) | 50 | 49 |
| | | | Other Loans (Income) | 180 | 180 |
| | | | Interest Expenses: | | |
| | | | Deposits (Expenses) | 56 | 56 |
| | | | Debt (Expenses) | 74.25 | 74.25 |
| | | | | | |
| | | | Servicing Fee Income | | 0.225 |
| | | | Residual Income | | 3.312 |
| | | | Other Expenses | 50 | 50 |
| | | | NET INCOME | 65.75 | 69.087 |
| | | | CRAR | 13.04% | 13.57% |

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