THE IMPACT OF THE SUB PRIME CRISIS ON SUSTAINABLE HOUSING FINANCE

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Introduction

Asian economies remain relatively immune to the sub prime crisis in the United States (US) and the resulting credit crunch in the US and Europe. However, they faced heightened uncertainty according to a recent report of the United Nations (UN press release 27-3-2008). India would be best placed among the developing countries to ride out the impact of a US recession according to the same report, because investment in the booming manufacturing and services sector will remain the main driver for the Indian economy (Financial Times, 28-3-2008).

The Mortgage Bankers Association predicts that a record number of Americans will have to hand over the keys of their house in 2008.[2] At the end of July 2007 many American house owners were no longer able to pay their mortgages. Often they had received an interest free period, or started when the interest was at record low levels. After some years they had to pay a higher than market rate of interest to make up for the low rate at the beginning. In the last three months of 2007 the number of mortgage owners not paying their debts was two percent, twice the number a year ago (Financial Times, 7-3-2008). According NRC (5-3-2008) ten percent of the house owners has a mortgage that is higher than the current value of their house.[3] Seriously delinquent loans increased from 6 to 9 percent. This can be a reason for the mortgage-providing bank to recall the loan.

The technology or IT bubble recession in 2001 was probably the first real global financial recession. Global financial markets have grown exponentially and so have the risks of transferring a crisis from one region to another (Van Dijk, 2008). The current sub prime crisis and the resulting credit crunch is an example of such a global financial crisis. It is important for urban managers, because it has a lot to do with mortgages and with efforts to regulate markets, in this case national and international capital markets.

We will first introduce the sub prime crisis and ask the question why it has had such huge effects. Subsequently the mechanisms contributing to the crisis will be described. This is the process of securitization, or the taking of the balance of mortgages to be able to attract fresh capital. Finally the reaction to the sub prime, or by now the credit crisis will be described. On the one hand the reaction of the US authorities and on the other hand the reaction of parties suffering from the sub prime crisis: investors who bought the bonds based on mortgages.

The sub prime crisis

In total six million house owners have sub prime loans and one million of them would have problems with repayment. In total 13.4 percent of the sub prime mortgages are in the process of handing over their keys, while another 20 percent has problems in paying in time.

The sub prime crisis has erupted in the second half of 2007 and disrupted financial markets. It contributes to economic stagnation in the US. It also disrupted a number of mechanisms that we normally assume to be working all the time, such as interbank lending. It led finally to a credit crisis. Interbank lending is down and that is the reason why this crisis is sometimes called a credit crunch or a crisis of confidence in the system. Banks do not trust each other any more, because they don't know how deep other banks are into trouble. Dodd (2007: 15) asks the question how a modest increase in seriously delinquent sub prime mortgages (amounting to an additional $ 34 billion in troubled loans) could disrupt the $ 57 trillion financial system in the United States so much. He answers the question why did it go so wrong by pointing at changes in the structure of the home mortgage market in the US. A structural change took place when the market was divided up in three categories of below-investment grade mortgage-backed securities between 2003 and 2006: prime, sub prime and alt-A. In three years the percentage of prime mortgage went down from 52 to 26 percent, while sub prime increased from 34 to 44 percent and alt A from 14 to 30 percent. The problem of the banks is that through the crisis their solvency is at risk. That was the reason why Bear Stearns needed to be rescued by the American government through JP Morgan.[4]

Total losses of this crisis are have been estimated early 2008 to be US$ 400 billion, while the International Monetary Fund (IMF) now estimates that the financial difficulties are set to cost US$ 1,000 billion (Financial Times, 9-4-2008). The recapitalisation requirements for the concerned banks are put anywhere between US$ 300 and 1000 billion (Financial Times, 6-3-2008). A substantial part of this recapitalisation comes from so-called sovereign funds, the investment vehicles of countries like Singapore, China and Norway. For example the Singapore Investment Corporation (SIC) provided US$ 5.3 billion to the Swiss bank UBS (with 2.7 billion from an investor from the Middle East, NRC, 14-2-2008). The City Bank Group attracted US$ 14.5 billion from different investors (also SIC and the Kuwait Investment Fund) through preferential convertible funds. Such investments imply an increasing role for investors from the East. The question is whether they are just in it for the money, or whether they also want to use their investment for strategic purpose. In Europe a Belgian-Dutch bank Fortis started a joint venture with Ping An, a Chinese insurance company. This is certainly a case where both parties have a clear strategic objective. Fortis eyes the Chinese market of fortunate private individuals while Ping An would probably gain international experience in asset management and opens its offices in China to Fortis.

Box 1 Housing finance in developing countries using securitization

Thailand has experienced a substantial expansion in formal housing finance during the last 20 years. The National Housing Bank (a public agency) has tapped into private capital markets and facilitated the development of a strong secondary mortgage market, with mortgage loan portfolios rising strongly. The rapid expansion in mortgage finance is a key factor in Bangkok's recent housing boom. It could not have happened without central government support in the form of capital adequacy allowances (to encourage commercial banks to make more loans for housing), maintenance of market interest rates, and other stimulating measures.

Securitization and the role of Secondary Mortgage Facilities (SMF)

In general any specialized financing institution can securitize a cash flow coming from a pool of successfully operating (infrastructure or housing) projects (Duett, 1990). Securtization helps to make available new capital to finance additional housing and infrastructure projects submitted by municipalities. A well functioning Municipal Development Fund (MDF) could also build up the specialized expertise to do so and hence increase the flow of funds it can invest in infrastructure.[1]

Secondary Mortgage Facilities (SMF) were first developed in the US where mortgages themselves were actually being sold in a secondary market after origination in the primary market. The term used to refer to funding of mortgages after origination, for example by using them as collateral. In some countries secondary mortgage facilities issue bonds collaterised by mortgages. The facility is an institution, which pools together mortgage backed loans and issues its own bonds (securitization). The institution can help to check the quality of the mortgages and would monitor and enforce agreed standards for mortgages. The basic idea is that SMF can increase the money available for mortgages substantially. Securitization has become more and more important for developing countries.[2]

Securitization boils down to taking off the balance a number of mortgages, which would otherwise immobilize the institutions capital for a large number of years. A mortgage providing institution normally runs out of capital after a few years and financial engineering is required to source new capital resources. Securitization is the instrument to achieve that. If done properly and the mortgages are sold as bonds, it means the institution is able to attract fresh capital and can continue providing mortgages. There is one snag. Once you have sold the bonds, you also don't feel responsible for the mortgages any more. Hence at a certain moment the quality of the mortgages was not as important as the turning over of the capital. Hence banks went into providing mortgages to people who usually would not qualify for such a housing loan. They also accelerated the speed at which banks increased lending because this reduced the amount of capital needed for loans. If you off load the loans from your balance sheet you don't need to increase your own capital as a provision for default.

The investors who bought this collateralised debt (or credit derivatives for that matter) are now facing the consequences, because the value of their assets is reduced and already one hedge fund concentrating on this kind of debt (Carlyle Capital Corporation; NRC 14-3-2008) has gone bust. It used a leverage of 30 to buy mortgage-backed bonds. Other financial institutions, which had invested in this kind of debt, are now taking their losses (box 2).

[1] A Municipal Development Fund (MDF) provides financing and contributes to institutional development by enhancing the financial and technical capacity of municipal government. A MDF is an autonomous institution in India for the promotion of municipal infrastructure (Van Dijk, 2004). They were developed in a number of countries, including India (in particular in Tamil Nadu and West Bengal) and usually supply technical assistance and training as well as loans.

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Box 2 Examples of write off because of sub prime crisis

BNP Paris (France) writing off almost one billion euros in its fourth quarter of 2007 (NRC, 20-2-2008). For all of 2007 the wrote off 1.725 billion euros.

Crédit Agricole (France) took a loss in the last quarter of 2007 of 875 million euros (Financiele Dagblad, 6-3-2008). However the write down on the mortgage related investments were much higher (3.3 billion euros).

City Bank Group (US) has written off for the last quarter of 2007 US$ 18.1 billion on sub prime debt and 4.1 billion on consumer loans.

The ING Bank (the Netherlands) charged 194 million euros to its profit and loss account as losses during the fourth quarter of 2007 on sub prime mortgages. Furthermore it depreciated its investment in the slightly better Alt-A mortgages (down 751 million euros in the last quarter of 2007).

UBS (Switzerland) wrote off 12.6 billion euro on its mortgage backed bonds (NRC, 14-2-2008). It has also bought collateralised debt obligations (CDOs) based on mortgages for some of its customers for whom they do the asset management. The bank is now hold liable by some of its customers for the huge losses incurred (NRC, 25-2-2008).

How did it go wrong?

Many Western banks bought for several billion dollars the so-called mortgage backed bonds, or in terms of the financial world the collateralised debt obligations (CDOs). These products are the result of securtization. What counts is the quality of the underlying assets, in this case mortgages. Rating agencies would provide their estimate of the corresponding risks, but their role as independent evaluators is also criticized. During this crisis it became clear that the rating agencies have often been too optimistic. Now many banks have to take their losses. They announced huge write-offs as the consequences of the subprime or the ensuing credit crisis, as shown in box 2.

Other factors playing a role are the impact of the regulators, including Basle II, which require a bank to use a model to calculate the required reservations. For risky investments it would have to reserve more of its own capital than for normal investments. The regulatory system has changed to so called value to market systems to appreciate the risks of banks.[1] That also means their capital requirements now depend on the market value and needs to increase when the underlying assets loose their value. There is a cry now for more regulation in the mortgage market. At the same time the authorities do not want to increase regulatory competition, or competition based on the financial regulation in a country. That would mean that financial institutions would move to countries which have the least, or the most flexible regulation.

Hedge funds are a special case. One they are no banks and hence not supervised in the same way. Given they tend to be heavily leveraged, some faced so-called margin calls when the banks consider that the value of the underlying collateral has decreased too much. This led to the end of the Carlyle fund. A number of regulatory requirements work against the market in this case.

Another factor is the development of the rate of interest, which in the US went up in 2007 (which made problems worse for mortgage owners). In the US the rate is now decreasing, to deal with the crisis and to promote economic growth, while in the European Union (EU) the interest may go up or remains at the same level to protect the economy from inflation.

The reactions of the major financial actors depended on the type of CDO they bought. The banks that really burned their fingers were the ones who bought a lot of so-called subprime mortgages, which have a high risk of default. The Dutch ING bank however invested mainly in Alt-A mortgages, which are known to be less risky. In Germany the government had to save the WestLB bank and a small enterprise bank (IKB) because of solvency problems and in the UK the government nationalised Northern Rock, which ran into problems for having invested too much in dubious mortgages.

Reactions: different ways of dealing with your losses

Different banks and insurance companies have reacted quite differently to the subprime crisis. As will be shown al lot depends on the accounting rules. We will give an example of a company writing of nothing or very little and one that took all the losses in one single blow.

One insurance company in the Netherlands did not write off anything. They had anticipated say 10 percent non payment and would see over the time of the CDO (5 to 10 years) to what extent this figure was too low (say it would turn out to be 15% default), or too high (only 5%). They claimed they did not buy them to trade, but rather as a long term investment.

The ING Bank (The Netherlands) wrote off in total euro 945 million in 2007 (NRC, 20-2-2008). It reduced the value of its investments not more because it considered the Alt A mortgages slightly better than sub prime (say only 5 percent chance of default). In total the losses were almost one billion euro, but spread over the profit and loss account and achieved by writing off some of the value of the assets. This leads to a small necessary increase of the banks own capital.

Other banks, and in particular US banks followed the Basle II rules. They concluded it was cheaper to take the maximum loss now by selling the CDOs at very low price (because nobody wants to buy them at the moment), but then they would not need to make important reservations, which immobilize their capital.

Finally there is another Belgian bank (Fortis), which tried to be very transparent. It told its shareholders that the loss of value could be anywhere between 200 million and 1.2 billion Euros, depending on the eventual non paid mortgages. This is a very wide margin, but may be realistic because the eventual losses depend on the development of the rate of interest and the US programs to help mortgage owners who are currently in trouble.

The Rabo bank in the Netherlands recently announced a substantial loss on its mortgage portfolio, although it was not even sub prime quality debt. It depreciated 1.4 billion Euros. Forty percent was charged against the net profit of the bank, the rest concerned the value of the portfolios of the bank, which contained some products based on sub prime mortgages. It leads to a lower value of these portfolios on the balance sheet. The bottom line is that the different directors will say that not all subprime mortgages based debt is the same and that some of them were better prepared for this crisis than others.

What has been done to prevent the crisis?

The US official rate of interest has been lowered substantially to promote the economy, to help people suffering from their mortgage interest and repayment obligations. In fact, the US government has undertaken several programs to help the victims of the sub prime crisis. For example the authorities have given them an additional month to solve their problems. The chief of the Federal exchange system in the US (the FED) has urged banks to forgive some loans (Financial Times, 5-3-2008) and the minister of finance encouraged the banks to collect fresh capital. He also asked them to reduce the number of forced sell offs of houses.

The financial authorities in different countries are working on solutions for the current crisis. The European Central Bank is working closely with the FED and in particular bankers want to avoid a system breakdown. For that reason Bernanke, the chairman of the FED, announced a series of measures, which usually had only a limited effect and did not yet solve the underlying problem of the lack of trust between bankers. The question is

Box 3 US policies to mitigate the negative impact of the crisis

1. Making it easier to by providing another month to customers before they have to hand over their keys
2. Decreasing the rate of interest several times and substantially
3. Expressing the willingness of the FED to accept US$ 200 billion of sub prime, or in poor debt, as collateral for credit form the Central bank system
4. Saving Bear Stearns by providing huge guarantees to JP Morgan and forcing a deal, which means the shareholders are loosing most of their capital.
5. Allowing investment banks to also borrow directly from the FED.

how effective these measures will be. It will determine how long the crisis is going to last and how deep the recession will be. While finishing this contribution US and European governments were considering to buy up these mortgage backed securities as the most radical solution to revamp the financial system (Financial Times, 22-3-2008).

Conclusions

Financial engineering tried to develop financial instruments to serve markets that were previously not served. It stimulated homeownership for people in the US previously not able to buy a house. However, the risks were underestimated and the sub prime crisis followed when a number of people were facing repayment problems on their

[1] In 1993 the US accountancy regulators approved a rule, which led to the use of market-to-market accounting standards. It means that US banks have to carry more securities at market value. This was a reaction to the previous US savings and loan crisis.

mortgage, which may have been provided at a very low rate, but currently requires the payment of a much higher amount. Then followed the credit crunch. Interbank lending was substantially reduced because the banks did not trust each other any more and the rates for inter-bank lending had increased substantially.

The crisis was due to the construction of such intricate securitised instruments, which were meant to spread the risks of mortgages and to refinance institutions involved in mortgage lending. The idea was to enable sub prime debt (the lowest quality mortgages, which are seven percent of all US mortgages) to be spread more widely. In the end it also spread the crisis of trust in the financial system quite widely leading to governments considering buying up these mortgages backed securities as the solution to avoid a financial system crisis (Financial Times, 22-3-2008).

US banks took their losses quickly and want to continue doing business. Some EU banks try to minimize their losses and have spread them over 2007 and 2008, but in this way they contribute to the uncertainty how much losses are still in the system. Total losses maybe up to US$ 1000 billion, while only 193 billion have been taken so far by the banks. One of the problems is that the value of these distressed assets is difficult to assess since there is no real market for them.

The basic problem of a lack of trust may be difficult to overcome. If banks remain convinced that other banks have not yet taken their full losses they may remain reluctant to lend to them. In that case the credit crisis will still linger on, until sufficient banks have taken their losses. The question is than how much will be lost it the resulting economic recession. A lot will depend on the development of the world economy and the rate of interests the central bankers will fix.

Originally it looked like the crisis in the financial world had nothing to do with the real economy. The predictions for the growth of the European, Indian and Chinese economy were all quite upbeat, although the growth would be slightly lower than in 2007. Gradually the news became more pessimistic. The US may be in a recession, the EU may not grow as fast as predicted and even China is thinking about 8 percent growth rather than the standard 10 percent growth that we have been used to since 1978. Finally the R word (recession) was out and Lex (in Financial Times, 20-3-2008) concludes that a “brief shallow dip along the lines of 2001 looks like wishful thinking”.

During the last decade there were very few barriers to secondary market development. Certainly a certain legal and institutional infrastructure must be in place and mortgage insurances may help. However, the role of the government has not helped to avoid the subprime and ensuing credit crisis and may make it more difficult for developing countries to develop secondary mortgage facilities on a larger scale.

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Notes :

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2 The average price of houses decreased nine percent in the United States in 2007 (NRC, 5-3-2008).

3 We are talking about 2.2 million houses where the value of the house is lower than the size of their debts. The largest number are concentrated in states like California, Florida and Ohio.

4 In 2007 already two hedge funds of Bear Stearns were liquidated.

5 A Municipal Development Fund (MDF) provides financing and contributes to institutional development by enhancing the financial and technical capacity of municipal government. A MDF is an autonomous institution in India for the promotion of municipal infrastructure (Van Dijk, 2004). They were developed in a number of countries, including India (in particular in Tamil Nadu and West Bengal) and usually supply technical assistance and training as well as loans.

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AN INNOVATIVE URBAN PLANNING APPROACH FOR FINANCING OF SOCIAL HOUSING

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"Long did I cherish a desire, neither for wealth or fortune, but my house tucked away in a corner of the earth, where I could be with my thoughts."
Rabinder Nath Tagore

According to the Ministry of Urban Housing and Poverty Alleviation (2007), the total housing shortage in India (as per 2001 Census) was about 24.71 million Dwelling Units (DUs), out of which 21.78 million DUs relate to the Economically Weaker Sections (EWS), while 2.89 million DUs are required for Low Income Group (LIG). The housing shortage during the 11th Plan period (2007-12) is expected to be 26.53 million DUs, out of which just 40,000 DUs will be in High Income Group (HIG) and Middle Income Group (MIG).

About one-half of the population of India's major metropolitan centres, like Delhi, Calcutta, Mumbai and Chennai are living in various types of illegal, squatter and slum settlements. The proportion is even higher in other cities. It is a paradox that the number of homeless, squatters and slum dwellers in the Indian Cities is increasing in proportion to public housing programmes. In spite of ever increasing investments in housing, the problem remains stupendous. This informal solution to the deficiencies of housing and urban development programmes in open defiance of planning legislation illustrates the extent to which popular measures regulate the process of change and provide shelter to the poor.

The prevailing approach towards social housing finance is dominated by 'subsidy' regime and the programmes are based on the following premises:

i. Stratification of Society according to economic levels
ii. To cover a vast proportion of population with limited investment, the size of dwelling units, their specifications/infrastructure norms are continually lowered.
iii. Standardisation of space, development and construction in consonance with the budget, subsidy and investments.
iv. Lease/legal stipulations to control transfer of subsidized social housing.
v. Mass production of housing under government programmes.
vi. Development of micro-financing, mortgaging, securitizations, lending and other banking and legal instruments for social housing finance.

Financial Models

There are various financial models which prevail in India :

1. Cost-recovery Model
2. Subsidy model (direct, interest, non-financial like land, services, etc.)

3. Municipal upgrading Model (Municipal funding)
4. Urban Basic Services Model (Plan funds)
5. Environment Improvement of Urban Slums Model (Plan funds)
6. Community savings Model
7. Co-operatisation Model
8. Land sharing/In-situ Reconstruction
9. Collective Community Financing Model :

Various types of financing for housing and services is made available under various schemes both for settlement upgrading and for building on new sites. The Government of India has launched Jawahar Lal Nehru Urban Renewal Mission, comprising of 'Basic Services to the Urban Poor' (BSUP) and Integrated Housing and Slum Development (IHSDP). The scheme also provides funds for slum and squatter rehabilitation projects.

Housing Finance can be availed through variety of agencies/institutions:

- Housing Finance Institutions
- Commercial Banks
- Individual Savings and Loans
- Pension and Insurance Fund Agencies
- Cooperative Societies
- Micro-Credit Financing Institutions for downmarketing credit for the poor.
- Credit Guarantee Scheme
- Employers' loan/grant
- Bonds, Share Market, Municipal Borrowings
- Real Estate Investment Trusts (REIT)
- Foreign Direct Investments
- Housing and Urban Development Funds (Central / State / Public Sector Undertakings)

The sources for housing finance are the following:

- Grants/Subsidies from Central/State/Local Governments
- Loans through Housing Financing Institutions
- Contributions in cash, kind and labour by the people
- Subsidy/loans from Civil Society (CBO's / NGOs / Donors)

The Housing Finance Companies (HFC) and Commercial Banks have made available easier Home loans but only for Middle and High income categories and not for the poor. Interest rate subsidies have been a popular way of enhancing housing finance affordability. Microfinance for shelter addresses a gap that larger scale mortgage lenders are unwilling to provide for. Wholesale bulk "Project Finance" is usually accessed at the level of the developer/housing agency for land assembly, infrastructure development, housing construction and allotment, which are normally short term loans.

Even a cursory glance at the performance of above given approach presents a dismal picture. Rather in the process, there had been stark misuse of the subsidies and public funds and the social housing programmes have sometimes ended up into scams, corruption and illegal transfers and sales. The problem is both an issue of what is actually financed and whether sufficient levels of finance are being mobilized. There is a dire need to assess and review the ongoing policies and programmes.

In order to arrive at an alternative housing finance approach, the following facts may be underlined:

- There had always been a wide gap between housing finance and the needs. Even whatever funds have been allocated, a large component is eaten up in administrative expenses. Further, there have always been allegations of favouritism, selective and inequitable spending of public funds, political compulsions and other constraints.
- Housing finance is not something which can be dealt in isolation. It is interlinked with the historical, socio-economic, human, political and physical contexts. The ground of housing development is the land. As such, the land, its planning, use and development controls, assembly and development policy are the key to housing finance.
- The problem of social housing can not be solved as long as it remains the responsibility of the public sector alone. The private sector and community are the major resources, who have to be incentivized and chanellised in the process.
- Housing is intertwined with jobs and can not be viewed in isolation, as a single use zone.
- Market forces, value of land and its location play an important role in city development, land use, social housing and its financing.
- Unless the land owner/private developer is obliged to provide social housing, the housing supply base can not be enlarged and taken beyond the subsidy approach. This will also help in achieving the higher output, variety and city wide provision of social housing.

There is a need to explore new options. We have to think of altogether abandoning the prevailing practice of land acquisition and adopt new ways of planning and development. With a view to promote the planned development together with interlinked delivery of social housing, community facilities, infrastructure services and public roads, greens, etc. new policies and systems need to be evolved and put in place.

Keeping in the focus the target of providing social housing, can we think of shifting from cash transaction regime (subsidies, conversion charges, development charges, etc.) to 'land and space' currency? This has the advantage of more fair and equitable transactions and plugging various loopholes, such as cash investments and receipts, which are largely spent on administration, etc. The new thinking should be based on the recognition of the facts that:

(a) Urban Land is the most valuable asset, which has often been squandered, misused or undervalued. This has largely been captured and controlled by the rich and powerful, who have no interest in social housing.

(b) Planning should focus upon the policies and systems which offer real flexibility in terms of use, development controls and preparation of detailed plans by the users and owners.

(c) Mandatory provision of greens @ 10 sqm per person, social infrastructure @ 10 sqm per person and public roads /parking @ 10 sqm per person should be ensured on a sliding scale.

(d) FAR on private lands and land use should be linked with the mandatory reservation of public uses and greens.

As such, a city plan can prescribe a basic FAR (say200) for group housing plots upto 1 Ha. This will keep on increasing with the proportionate increased in reservation of land for public green, facilities and public roads. For instance, if a developer holding 5 Ha., reserves 2.5 Ha. of area for public use/greens, the FAR on remaining land (net plot) will be 660. Against a reservation of 6 Ha. in a 10 Ha. plot the FAR on remaining 4 Ha. shall be 700 and if no reservation is made it shall be 200. For surrender of land reservations for public greens, facilities and circulation, an incentive index is offered, according to the land intended use. The owner/developer can have a choice to develop residential, mixed land use, commercial complex, etc. for which the FAR can be adjusted by multiplying it by an index, as given below:

Residential	-	1.0
Mixed Use	-	0.80
Commercial and other uses	-	0.60

In all cases an additional 15% FAR (on permissible FAR) would be available to build mandatory social housing as per specifications, which shall be handed over to the city authorities before the main use activity is operationalised by the developer. The provision of parking, public green/facilities services shall also be mandatory for which at least 30 per cent of net plot should be earmarked and these shall be free from the permissible FAR. The following table explains the suggested FAR framework:

Table : Sliding FAR Framework on Private Lands to Incentivise Reservation of Social Housing & Public Greens/Facilities etc.

Plot Area	Reservation for Greens/ Facilities	Basic FAR	Extra FAR for Social Housing Component	Extra Bonus FAR for Reserved Green & Facility	Overall FAR (on total plot)
Upto 1 Ha.	20% common internal green/ facility	200	30	-	230
+ 1 Ha. – 2 Ha.	30% Reserved Green + Facility	200	30	60	290
+ 2 Ha. upto 5 Ha.	40%	200	30	80	310
+ 5 Ha. – 10 Ha.	50%	200	30	100	330
Above 10 Ha.	60%	200	30	120	350

Notes :

- For Mixed use development FAR to be multiplied by an index of 0.80 and for commercial development by an index of 0.60.
- Floor Areas under Parking, public utilities and community uses (Dispensary, Police Post, Fire Post, Aanganwari, crèche, municipal office, Security Room etc.) shall not be counted within permissible FAR.

In order to make the planning process more participatory and to share the benefits of urban development with the farmers/land owners, a new land policy based on voluntary land barter needs to be worked out.

The planning and development authority may have to evolve an arrangement or a Memorandum of Understanding (MOU) with the land owners in order to assemble all the lands proposed for new planned urbanization. The MOU or agreement will spell out the time frame for return of urbanized / developable land for housing or for integrated development to the land owners at an agreed rate of land return, say 50% for land holdings above 40 Ha., 40% for land holdings above 10 Ha. but below 40 Ha., 30% for land holdings above 5 Ha. but below 10 Ha., 20% for land holdings above 2 Ha. and below 5 Ha., and 16.6% (one-sixth) for land holdings of less than 2 Ha. but more than 0.5 Ha. The idea is to discourage fragmentation of rural lands planned for future urbanization. The process should be entirely voluntary, with the consent of the farmers. All the land owners will get the land return for housing development (with option to develop it for mixed use or commercial purpose as per an index multiplier), irrespective of assigned land use of their holdings, whether proposed for roads, utilities, greens, residential or any other use. This will ensure that there is no discrimination and a win-win situation prevails. The cost of the development of land, water supply, sewers, storm drainage, roads and amenities like parks, schools and hospitals will be met through free sale of 10-15 per cent out of the lands obtained by the development authority. A rehabilitation package comprising of compensation, monetary relief / guarantee, shop, allotment job and shelter shall have to be worked out for the small land holders, who either choose to sell their land to the development authority or for the interim period, in case they opt for Land Barter Scheme.

This way, the prevailing process of compulsory acquisition of land, which has become extremely difficult in urban areas, will be obviated to a very large extent and the land owners will be motivated, mobilized and mandated to provide social housing, public greens, facilities. This will also minimize the investments of public authorities in acquisition and development of land for public purpose. Another advantage of this model will be the determination of land use and FAR on the basics of market / public demand, rather than superimposition of the same by the officials. This will yield a variety of developments, newer urban form, signature projects and a more composite integration of land use activities. This will also be an effective way of public participation and decision making by the civil society.

CONCLUSION

The notion of 'financing shelter for the poor' corresponds, to the abandonment of the traditional approach of planning and housing as public responsibility embedded in the 'social role of the state'. With the commodification of the economy, where housing is but another good to be produced, sold and bought, the solution to the shelter dilemma is based on the notion that 'the poor' will always exist, and that their access to adequate shelter will require special measures.

The issue is not simply financing shelter for the poor. The issue is making adequate, affordable and 'sustainable shelter' available to the poor. This can not be possible with conventional subsidy and shelter centric approaches, but new policies and planning systems need to be worked out, where the urban land, private sector and the community are the critical resources. The cities will have to change the planning paradigm in order to increase their productivity, to generate jobs, incomes and financial resources, as well as to provide shelter and services to the poor. The policy and planning potentials are yet to be discovered fully in this pursuit.

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A CRITICAL ANALYSIS OF HOUSING PROBLEM & POSSIBLE SOLUTION IN INDIA; WITH SPECIAL REFERENCE TO HOUSING FINANCE AND POLICY

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Introduction

There are three basic needs of human being i.e. food,, clothing and shelter. Right from the day, mankind evolved, he is struggling to meet these needs. The life of the human being can not be imaged without safe, secure and comfortable shelter. But, how many of us are fortunate to have the shelter of our own which is safe and comfortable. The need of the shelter is one of the fundamental requirements, which must be given top priority by the government and other financial institutions. The problem of housing is acute in both rural and urban areas. In rural areas, most of the houses are made up of mud and thatched hut. These structures are just an enclosure and unworthy of being called home. The house is a place, which must be equipped with the minimum amenities to take care of human needs. Most of the rural, urban resettlement and jhuggi houses are devoid of these amenities.

Human settlement has always been unplanned and unorganized. The villages were settled by the landlords in which the size of the houses were the indicator of the socio-economic status of the owner. The peasants, the workers and the landless families were doled out a piece of land to build their small dwellings. They were providing various services to their patrons. Gradually, the situation is changing very fast in the villages. The socio-economic condition of the people at all levels are also improving which is reflected in the settlement pattern in the villages also.

In urban areas also, the early settlers build big and elaborate mansions for themselves. The petty traders, service providers were migrants and were forced to settle at the outskirts of the cities. The process of urbanization is a recent phenomenon in the human history. The small towns are being converted into big cities and big cities into mega cities. The metropolitan cities are facing the problem of more space to accommodate the rising population. Large member of people are migrating towards cities and towns in search of job opportunities. They represent every strata of society i.e. highly educated, professionals, skilled, semi-skilled unskilled and even illiterate.

They are increasing the already heavy pressure on civic facilities in the cities. In any democratic county, the migration and settlement of the people cannot be curbed. The constitution has provided the right of movement and settlement to the citizen in any part of the county. In this situation, the government has to protect this right-on the one hand and provide shelter at affordable price to the settlers. More than half of population of the world is living in cities. It is estimated that within 50 years, nearly two third of the population will be living in towns and cities. This is the scale of the demand at present and in future. Rapid urbanization is phenomenon, which is catching up very fast world over and particularly in developing counties. Urbanization is leading to ghettoisation. The civic services like water, sanitation, road and other infrastructures are crumbling. The level of pollution is increasing with increase in congestion and the area of open spaces is also decreasing. Poor settlements coupled with poor infrastructure leads to several social and health problems. The slum areas are easy target and hideouts for criminal elements. The safety and security of the habitants in these slums are always at risk. The houses in slums are made of huts, tents and sometimes-poor quality of woods and plastics. These materials are very sensitive to fire. The same small room is used for living and cooking food. A slight carelessness on the part of any body leads to fire which takes its toll in the form of human life and property- In cities the fire in these slums are very common which turn into inferno sometimes. The loss of life and property is reported quite often in these areas. Mostly women and children had to bear the brunt of the burden of inferno. Most of the slums are unauthorized. They are built on the public land. Because of their unauthorized status government agencies do not take responsibility to provide civic amenities to these areas. The living condition is pathetic and inhospitable. On the other hand, these areas are the pocket borough of politicians. In a democracy the number of votes are very important. Therefore, politicians use them to serve their own political interests. They provide man power to work as election agents mobilization for election rallies and even for booth capturing. They can be easily lured to act for politicians. In this background, the problem of housing should be viewed.

Human Aspiration

It is the desire of every individual to own a house. It provides social and psychological security to the owner. But, this aspiration is not very easy to be fulfilled for most of the people. It requires a huge investment. Unless, someone is gifted with parental property or inherited assets, it is a gigantic task to arrange the resources. The price of land is increasing exponentially accompanied by escalating cost of construction materials.

In our society, ownership of houses by women is much less than men therefore, at the time of discard and dispute, women has to suffer the most. From time to time respective state and central governments announces policies to encourage men to buy houses in the name of wife or mother by levying less registration changes for them. Home is an immovable property. The buyer sometimes invest the major part of his life's saving into buying a house. One can mortgage it to procure the loan of heavy amount at the time of need. If the property is bought in the name of the spouse and she does not agree to sell or mortgage at the time of need the husband is left high and dry. This prevents the male folk to transfer the ownership right to women. Ownership of house gives the sense of empowerment.

Demand of Housing

According to the UN Report, nearly 30 percent of Indian population is living in urban areas at present. The trend of migration indicates that around 50 percent of the total population will settle in towns and cities by 2050. Better infrastructure and comparatively better quality of life, employment opportunities and attraction of urban lifestyle are some of the major reasons of migration. The demand of the new migrants as well as the population growth of older inhabitants will create a huge demand for housing in urban areas.

At frequent intervals the anger and angst of the upper and middle class in urban areas results into demolition of slum dwellers who find themselves in a nonplus situation. Some times, this demolition drive flare up into a riot like situation. These developments must be viewed form other angles also. It is projected that 60 million people will be residing in urban areas by 2030. The other development is ever expanding market of housing finance which was 10,000 crore industry by 2000 which is touching 100,000 crores till recently.

According to national Sample survey organization (NSSO) 2002, 65 percent of the slums were built on public land owned mostly by local bodies, state governments etc. On infrastructure front only 15 percent households have drinking water, electricity and toilets. The housing stock shortage in India is around 20 million, of which 50 percent is urban, of this 70 to 80 percent is in the low income group.

Housing Finance Mechanism

Market forces are governing financing of housing sector. Lending to customers to finance for housing is being made easy and affordable. The government also support this initiative in the form of tax rebate. The upper and middle class people are also taking advantage of the situation. The problem of financing to the economically weaker section of society for both urban and rural poor is very daunting.

With jumping of private players in the field of housing sector, only the need of urban middle and upper class is catered. They do not construct houses for the poor. The real estate developers are investing huge amounts to make the fast buck. In the scenario, the most needy and vulnerables are left to defend themselves.

In the first phase of last fifty years, the problem of housing was addressed in the form of special schemes and programs. Gradually, it is getting mature and focused. HUDCO was established in 1970 with 10,000 crores cumulative amount for urban housing. National Housing Policy and National Housing Bank are the indicator of mature thinking in this direction.

Housing finance institutions and banks generally hesitate to serve low-income group. There are variety of reasons behind it. The problem of credit risk assessment, no fixed income, no tax return and volatile cash flow. The problem of recovery and collateral guarantee against land or other property and low profit margin on small financial transaction. Still, the government can intervene in this situation to mitigate the plight of the poor. Sound land use planning, revamping of land title systems, encouraging low-income housing are some of the measures, which can be adopted by the government. Taking the size and quantum of the problem, government alone will not be able to tackle this problem.

Private sector should be given incentives along with government support which will go a long way to deal with this problem.

Housing Policy

The key features of the housing policy which was tabled in Parliament in 2007 was called “National Urban Housing and Habitat Policy 2007” was to provide “affordable housing” to all in the country. The policy intends to promote sustainable development of habitat with a view to ensuring equitable supply of land, shelter and services at affordable prices especially the poor. By the end of the 10th Five-year Plan, the shortage was estimated to the tune of 24.7 million units of which 99 percent of the shortage pertains to economically weaker section and low income group. Jawaharlal Nehru Urban Renewal Mission (JNNURM) has also integrated housing and basic services for the poor. The policy also emphasizes the need of the marginalized groups like SC/ST, backward classes, minorities and women. The other notable features of this policy are increase supply of land, additional floor area ratio (FAR), healthy environment, increased flow of fund etc. It also includes solid waste management and encouragement of the use of renewable sources of energy. The policy calls for reservation of 10-15 percent reservation of land in every new public and private housing projects for EWS and LIG housing. The priority will be given to provide shelter to the urban poor at their present location or close to their work place. Central government is advised to prepare model municipal laws and prepare city maps based on GIS. The use of cost-effective technology and materials will be encouraged. A balance ecological development will also be maintained. Micro finance institutions at the state level would be promoted to finance to urban poor.

All these measures are explicitly elucidated in the new housing policy.

Conclusion

Rapid urbanization has pushed the agenda of shelter to the forefront of our national policy and programs. The problem of providing affordable housing along with basic civic amenities particularly to the urban and rural poor remain to be an arduous task. The provisions envisaged in the housing policy illuminate the intents of the government. But, the implementation of the policy needs to be monitored and supervised very adeptly and effectively. Co-operative housing, housing for the labourers by industries and organizations need to be encouraged. Public-private partnership is a welcome step, but it needs to be managed in accordance with provisions of welfare state. The government should revamp the land title system to enable the poor of creditworthiness.

The housing policy document is not so concerned about the rural housing problem. Adequate provision to finance rural housing also needs urgent attention. The existing rural houses are mostly made of mud. Even pucca houses do not have separate kitchen, toilet and bathroom etc. They should be motivated to construct proper houses with these facilities to maintain hygienic condition. Adequate funds should be made available to them through banks and other housing finance institutions for this purpose.

Suggestions

(i) To decrease the rate of rural migration to urban areas, there is a need to provide urban facilities in the rural areas.

(ii) Job opportunities should be created in the rural area and small town areas to prevent unnecessary migration of work force.

(iii) There is a need to formulate long and short time policy to address this problem.

(iv) Black money in the housing sector should be curbed.

(v) Women should be empowered through ownership rights by providing lucrative incentives.

(vi) There should be differential rate of interest for the rich and poor as far as housing finance is concerned.

(vii) Inclusive growth of housing should be encouraged.

(viii) Like education, shelter should also be considered as a right of citizens and proper arrangement should be made to realize this right.

(ix) Special provisions should be made to provide shelter to older persons, divorcees, widowers and physically challenged persons.

(x) The structural designs of the new constructions should be made energy efficient and use of renewable sources of energy should be made mandatory to provide clean and healthy environment.

(xi) There is a need to utilize urban wastes of all shorts to recycle and generate energy and reusable materials.

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HOUSING DEMAND, TENURE CHOICE AND HOUSING POLICY IN BRAZIL

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ABSTRACT

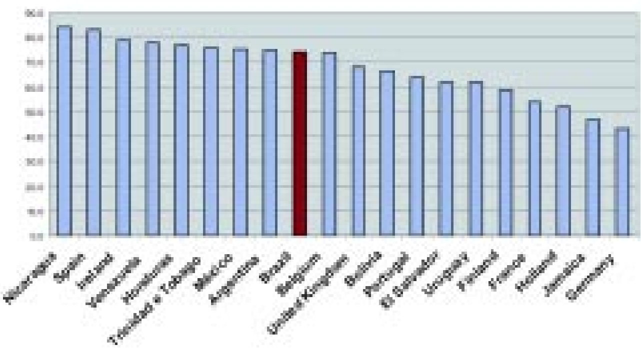
This paper analyzes the main determinants of tenure choice in Brazil in formal and informal housing markets. Logit and Multinomial Logit models with several specifications are used to test the household´s tenure choice behavior, based on 2005 National Household Survey (PNAD) microdata. Wealth and life cycle variables such as age, household size and marital status are good predictors for formal ownership The poor, the young, recent migrants and single women with young children have higher probabilities of renting or becoming owners in informal settlements.

1. INTRODUCTION

In Brazil, like in other Latin American countries, the governmental housing policies have emphasized the promotion of homeownership as the best way of satisfying housing needs. In developed countries several studies boast the positive impacts of homeownership on children, neighborhood conditions and civic participation. There is also a huge body of literature stressing the importance of self-help housing to promote homeownership among the urban poor in Latin America.

Housing is both a consumer and investment good. Besides being a basic human need, housing usually corresponds to the main asset in households´ portfolio. In Brazil, housing accounts for 30% of the total stock of physical capital. However, housing tenure conditions vary deeply across countries, irrespective of income patterns, region of the globe and levels of development. In Brazil homeownership ratio is 74,4%, very close to Argentina (74, 9%) and Belgium (74%) but behind Spain (83%). On the other hand, in countries with very different stages of economic development such as Germany and Jamaica homeownership ratios can be quite similar, around 45%.

Graphic 1
Homeownership in Selected Countries in Latin America and Europe



Source: Cepal , IBGE and European Housing Statistics, 2002

Despite the efforts of housing ministries to promote homeownership in Brazil and in the rest of the developing world, analyzing tenure conditions in these countries we can find a multiplicity of housing solutions, that include homeownership and renting in formal housing markets, squatting and renting in informal settlements up to the occupancy of rent-free housing, ceded by relatives or employers.

This paper intends to analyze the main determinants of tenure choice in Brazil in formal and informal housing markets using micro-econometric techniques. By modeling the tenure choice behavior of the Brazilian households the paper could contribute with several insights over the consumers´ preferences in the housing market, helping the government in the design of housing policies better adapted to the household demand and income level.

2. SURVEY OF THE LITERATURE ON TENURE CHOICE

There is a vast literature on tenure choice, dealing primarily with the US and other OECD countries. In developed countries studies housing tenure is usually classified into renting or owning in formal housing markets, disregarding any kind of informality. However, as Englund et al. (2005) pointed out, this own-rent dichotomy is just a simplification for analytical purposes. In fact, housing tenure can be seen as a continuum of property rights over land and structure, even in developed countries, and actual tenure rights may be influenced by zoning and other urban legislation, rental agreements, length of stay, private and costumary laws, among others.

One of the earliest works on tenure choice is Kain and Quigley (1972). This study shows that blacks, single females, larger families and women-headed households are less likely to own in Missouri. Li (1977), demonstrate that income, family size, age and race of the household head are the primary determinants of homeownership in Boston and Baltimore. Rosen (1979), King (1980), Henderson and Ioannides (1983) and Goodman (1988) stress the importance of the user cost of owning versus renting, the tax laws and portfolio considerations of housing as both and investment and consumption good to explain tenure choice. Blackley and Follain (1983) conclude that the net effect of higher expected inflation is a decrease in the cost of housing, leading to higher ownership rates and higher investment in housing. Linneman and Wachter (1989) conclude that even in well-developed capital markets, the presence of borrowing constraints adversely affects the homeownership propensities. On the other hand, Deaton (1992) and Neri, Carvalho and Nascimento (2000) state that individuals with liquidity and borrowing constraints can accumulate housing and real estate assets as a buffer-stock against uncertainty.

Iwarere and Williams (1991), show that permanent income, housing prices, wealth, and demographic variables exert the most dominant forces on housing tenure. Ioannides (1987), also concludes that wealth and homeownership are positively correlated, with wealth resulting in higher mobility for renters and lower mobility for owners. Coulson (1998) find that being an immigrant has a substantial negative effect on homeownership but that this effect dissipates over time.

Although in developed economies the available tenures are typically renting or owning, there is a need for further distinction of tenure status in developing countries. In the formal market of developing countries the choice continues to be between owning or renting. However, in these countries, there are several informal tenure arrangements that include: home ownership through squatting or the purchase of illegal subdivisions; renting a bed, room, house or piece of land or share with kin or relatives. The literature stresses that those who live in informal tenures are typically the poor and that their tenure choice is frequently reduced to selp-help construction or renting in a clandestine subdivision or even rent-free or sharing arrangements (Gilbert, 1993; Necochea, 1987; Cocatto, 1996). Coulomb (1988) wonders whether the poor even have a choice or are forced into rental accommodation because there is no other alternative open to them. Edwards (1990) claims that available tenure choice is an increasing function of income and that people with lower incomes have fewer alternatives. However, this author found no direct correlation between tenure choice and social class or income groups because households with the same level of income choose different forms of tenure and vice versa. Green (1988, p. 251), states that "although choices can only be made within the constraints which determine what is available, where and at what price, even the most disadvantaged section of the population usually has more than one alternative to choose from". Van Lindert and Westen (1991), analysing housing shelter strategies of low income groups in Bamako and La Paz argue that both the "choice" and "constraint" arguments can apply to different social categories within the same income bracket. In Bamako, some households without financial constraints to secure homeownership chose to continue renting. In La Paz, many of conventillo inhabitants prefer to remain in this centrally located rental accommodation than to become owners in the periphery.

Daniere (1992) indicates that family size, education, income and mobility are powerful forces explaining tenure choice in Cairo and Manila. Grootaert and Dubois (1988) concluded that stage in the life-cycle and mobility are the two prime determinants of tenancy status in Ivory Cost. Similarly, Arimah (1997), states that income, investment motivation for ownership, number of children, house head gender, life cycle-variables, duration of stay in the city and access to land on the basis of ethnic qualification are the main determinants of housing tenure in Ibadan, Nigeria.

Jacobs and Savedoff (1999) show that life cycle variables influence the decision between owning or renting in Panama, whereas choosing between buying a complete housing unit or progressive building it, depends on income and assets levels. Similar conclusions are reached by Koizumi and McCann (2006).

Following Turner (1968), the literature agrees on the important role played by informal land markets in the supply of ownership alternatives for the poor. However, Miraftab (1997), analyzing data from Guadalajara, observes that the poor cannot be aggregated into a homogeneous group based on income only and that homeownership in informal settlements will not benefit all, arguing in favor of broadening the scope of housing policies to include renting and sharing as important shelter options for the poor. Coccato (1996), based on research conducted in 3 informal barrios of Resistencia in Argentina, also finds that rentals and sharing increase the number of choices for those who cannot buy, and for those who are in search of job opportunities. Meanwhile, renting also provides a means of income generation, or financing for poor owners. Finally, homeownership may not be a priority for many people, besides reducing mobility.

Gilbert (1993) writes that Latin American governments encourage owner-occupation, sacrificing other forms of housing tenure, what limits the shelter opportunities available for the poor. For him renting must be recognized as both a respectable and a necessary housing option. Even so, most government policies are still at early stages regarding rental housing in most developing countries (Coccato, 1996). The World Bank (1993, 15) stated that "diversity of the supply is the key for a successful housing sector". Similarly, Van Lindert and Van Westen (1991) and Rakodi (1992,) advocate that housing policies must be aimed at all sub-markets and a wide variety of housing options should be available to every family.

While studies on tenure choice in the developed world deal only with formal owning and renting, in the developing world informal subdivisions, squatting, and renting of informal properties play a major role in providing housing for the poor. Hence, any study of tenure choice in Brazil must allow for these different categories of tenure as must any future policy considerations.

3. BRIEF RETROPECT OF THE HOUSING POLICY IN BRAZIL

In Brazil, since colonial times until the 1930´s the access to housing by the middle and low income families was made predominantly through the rental markets and housing was mainly private supplied by the upper classes, because there were no official housing financial system. The private rental sector was crucial in the provision of housing to the fast-growing urban populations of Rio de Janeiro and São Paulo.

This scenarium started to change when the principle of "self-owned housing" gained momentum after the 1940´s, with promulgation of the 1942 Tenants Law and when the official national housing policies started to advocate the benefits of homeownership under President´s Getulio Vargas Government (1930-1954). The rent control system established under the 1942 Tenants` Law gave incentives to the construction of housing to sell for owner-occupation, making formal housing less affordable and pushing the poor to informal housing markets. The development of self-owned housing is closely related to the increasing of the construction of high rise buildings in central areas and self-help construction in the periphery. This movement of disincentives to the rental housing private sector together with the massive destruction of low income rental housing in central areas, due to urban renovation projects, under rapid industrialization and explosive urbanization rates led to the emergence of slums and peripheral settlements in the main metropolitan areas of the country.

Concerning the provision of Housing Finance, Government intervention in the housing market began with the creation of the "Pension and Retirement Funds" (IAPs) or state institutions organized by professional categories after the 1930 revolution. From 1937 to 1945 the IAPS have supplied 124 thousand dwelling units for their partners, with formal employment, encompassing 5% of the total urban population of that period. Later on, a large share of IAPI funds began to be used to financing of public megaprojects such as the construction of the new federal capital in Brasilia. The "Popular Housing Foundation", created in 1946, was the first governmental institution to promote social housing. However, its performance was quite poor to reduce housing shortage, with the construction of only 19 thousand units between 1946-1964.The official government policy towards informal settlements at that time was the complete relocation of slum and tenement dwellers to government-built or financed structures such as the Parques Proletários (temporary camping) during the 1940s and the 19950s and Conjuntos Habitacionais (building blocks of social housing), from 1960s on. From 1962 to 1965 the USAID Alliance for Progress Program lend money for urbanization and slum removal of 42 thousand people out of 27 central slums to 4 newly constructed Conjuntos Habitacionais: Vila Aliança, Vila Kennedy Vila Esperança and Cidade de Deus.

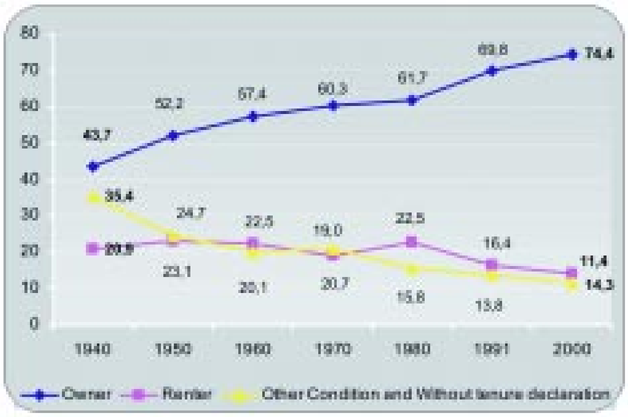
In 1964 the federal government creates the Housing Financial System (SFH) and the National Housing Bank (BNH), under the military regime. BNH was the first efective initiative of the government to promote a national housing policy, with well defined goals and targets, source of funding and specific credit mechanisms.

The creation of BNH in 1964, also had the promotion of “self-owned housing” as one of the main objectives of the national housing policy. One the main criticisms we can make to the performance of BNH till its extinction in 1986 is that, despite generating a real estate boom, it has subsidize medium to high income households and was incapable of reaching the low income population, therefore increasing slum formation and urban sprawl. The State Housing Companies (COHABs) established a supply of housing to the affordable segment (households with income from 3 to 6 minimum wages) based on the purchase of land plots in the periphery, without infrastructure, aiming at reducing the costs, resulting in the supply of low quality housing in homogenous blocks in segregated neighborhoods, far away from employment centers.

Loans to medium and high income class absorbs the bulk of credit to self-owned house, because less than 20% of the BNH beneficiaries perceived income below 5 minimum wages. BNH has financed 4.8 million dwelling from 1964 to 1986, only 25% of the increment of the housing stock in the period, with the other 75% being produced outside formal housing finantial system, through self-help housing in peripheral settlements or slums. From 1975 to 1979 BNH have promoted “non-conventional” programmes aiming at the low income population serviced land plots, urban infrastructure, core-houses and acquisition of construction materials, all with very limited results. By the mid 1970s, with the increasing in unemployment and generalized loan delinquency (thanks to the mismatch between the payment capacity of the borrowers and the increasing in the mortgage downpayments, BNH Systems has become finantially insolvent, leading to its extinction in 1986.

During 22 years of existence the SFH/BHN System have concentrated loans on the higher income groups, increasing income and wealth concentration, strengthening homeownership and helping to the development a strong real estate sector. With the extinction of BNH part of its attributions has been transfered to CAIXA (operations), part to the Brazilian Central Bank (regulation). Graphic 2 gives us an idea of the change in tenure conditions occurred over a period of 60 years, when ownership rates increased over 30 percentage points.

Graphic 2
Brazil- Tenure Condition of private dwellings
1940-2000



Source: IBGE- Demographic Census,1940-2000

More recently we have witnessed the changes in the public policies towards slums: from slum erradication and removals to serviced plots, slum upgrading, collective mutual-help housing, creation of Zones of Special Interest (ZEIS) and land regularization programmes etc. Important facts for the promotion of social housing in Brazil were the inclusion in the right to adequate housing in the

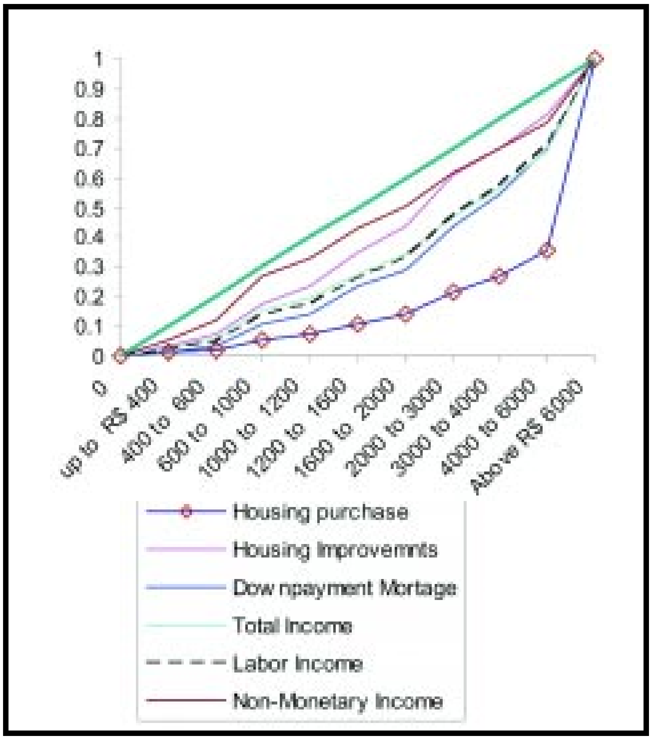
Brazilian Constitution and the promulgation of the Statute of the Cities in 2001.

Housing is one of the priorities of the President´s Lula Growth Aceleration Programme (PAC), with the prevision of R$ 106,3 billion for housing investments for the period 2007-2010. However, even after recent improvements in the urban legislation to promote the social function of the property, the amount of funding for social housing, urban upgrading and land regularization is still quite small comparing to the housing needs of the poor. The amount of money devoted to public sector institutions to invest in social housing in PAC is only 10% of the total funds for housing. Furthermore, the low income population has little or no payment and indebtment capacity, what restricts their access to formal owner-occupied or rental markets and foster informality. The Federal Government itself has perceived the need to deepen the credit market and take Loan funds to the low income population, increasing the percentage of total funds devoted to people with monthly income up to 3 minimum wages.

The creation of the Rental Leasing Program (PAR), with a target group of people up to 6 minimum wages, was a tentative to diversify the supply of housing option for the low income population. However, the finantial importance of PAR, slum upgrading and regularization and construction materials is almost insignificant when compared to programmes aming at the financing the purchase of new or old finished housing units for medium to high income households.

Graphic 3, shows the huge income and wealth concentration that prevails in Brazil. Expenses with finish housing purchases and mortgage downpayments are even more unequally distributed among Brazilian households than labor income. However, expenses with improvement in housing conditions is very well distributed among all income classes. This fact may reflect the effort of the poor, that devote their savings to improving their housing conditions.This characteristic of the consumer spending in housing in Brazil shows the opportunity for the implementation of housing microfinance programmes for the progressive reforming, upgrading and expansion of the existing units. Notwithstanding, the high rate of ownership among all income classes in Brazil may reflect this effort of the low income population to improve their housing conditions progressively, mostly in informal settlements, while richer households may prefer to move to new and better housing, instead of reforming or upgrading existing ones. The fact that down payment expenses are more unequal than total income distribution might be a indicator of credit constraint in Brazilian housing markets, showing that the poor households cannot finance their housing equity trough the official credit system in the same proportion of their income share.

Graphic 3- Selected Household Expenditures per income bracket (in R$)



Source: The authors, based on IBGE 2003 National Budget Survey (POF)

4. METHODOLOGY[1]

In the paper we have used Logit and Multinomial Logit Models with different specifications to study the determinants of the tenure choice in Brazil, taking demographic, social, economic and locational factors as independent variables. The Multinomial Logit Model is an extension of the Logit Model used to classify discrete or categorical variables with more than 2 states. The dependent variable includes the housing tenure choice, both in formal and informal sectors.

The data comes from the Brazilian Census Bureau (IBGE) 2005 National Household Survey (PNAD). To analyze housing tenure choice in Brazil we have selected our sample based on an extended concept of urban areas, that includes the 3 types of urban sectors as classified by IBGE (urbanized urban areas, non-urbanized urban areas and isolated urban areas) plus rural areas of urban extension, that correspond roughly to the urban fringe.

We have used information on the dwelling mode of occupancy, land property rights and sector type to define the tenure categories. Informality in the housing markets can be captured either by lack of well-defined property rights (squatters) or by non-compliance with building codes and other urban regulation (slums)[2] . Based on the above variables 4 different tenure status were defined: 1) Formal owners: owns the house, owns the land and is not located in a substandard area; 2) Formal Renter: Rents or rent-free outside substandard area; 3) Informal Owners: owns the house but not the land or has other tenure condition such as encroachment (squatters), owns in a substandard area (slum dweller) or both and 4) Informal Renter: rents in a substandard area.

Table 1 shows the absolute frequencies and percentages for housing tenure conditions. Formal owner is the most frequent tenure status, while informal settlers account for only 7% of our sample.

Table 1- Tenure Conditions in Brazilian Urban Areas - 2005

Tenure Condition	*Frequency*	*%age*	*Valid %age*	*Cumul-tive %age*
Valid Formal Owner	29,993,897	66.7	7..9	7,.9
Formal Renter	8,067,09317.9	19.6	92.5	
Informal Owner	2,907,5906.5	7.1	99.5	
Informal Renter	191,112 0.4	0.5	100.0	
Total	41,159,692	91.6	100.0	
Missing System*	3789591 8.4			
Total	**44,949,283**	**100.0**		

*Source: The authors relied on 2005 PNAD. * includes rent-free and other tenure conditions*

We classify the determinants of tenure choice into four main blocks of variables: 1) Life Cycle and Household Characteristics; 2) Wealth and Permanent Income; 2) Social Vulnerability and Credit Constraint and 4) Location variables. Life Cycle and Household Characteristics block includes: Age of the Household Head in years, Household size and Marital Status. The Wealth and Permanent Income Category includes: Per capita income, Household income, Years of schooling of Household Head and a Wealth proxy. Social Vulnerability and Credit Constraints are proxied by: Gender of the Household Head, Migrant, economic dependency and labor market status. The location variables used are: Metropolitan areas, Type of municipality and Macro-Regions. We construct a proxy for household wealth based on housing conditions characteristics and access to durable goods. We assume that the absence of proper housing

[1] For more details about the methodology and results see an extended version of this paper available at http://www.worldbank.org/urban/symposium2007/

[2] The best proxy for slums are the sectors classified by IBGE as substandard areas, that encompass a group of 50 dwelling units or more, undisputed and recently squattered, without authorization, privately or publicly owned, laid out in a scattered and dense manner and lacking essential public infrastructure services.

conditions implies a reduction of 1 point in our proxy of wealth for each desirable attribute that is missing. To measure the degree of housing adequacy we rely on the definition used by UN-Habitat to Monitor MDGs Target 11: Safe drinking water, Proper sewage, Electricity, Structural Durability and sufficient living space. Access to durable goods increases like fridge, freezer, television, washing machine, computer or internet and the number of bathrooms increases wealth.

Our sample comprises married couples in 63.5% of the cases and 53.8% of the household heads were non-african descendents. Migrants account for 47.9% of the entire sample: 7.2 % with less than 4 years in the municipality, 5.8% with 4 years up to 9 years, and 34.9% living for more than 10 years in the same city. Public servants account for 5.2% of the total number of household heads. Table 3 shows some descriptive statistics of the continuous variables used in the regressions.

5. RESULTS AND DISCUSSION

We begin the analysis by presenting the results of the traditional dichotomic model of housing tenure choice, that is, owner or renter, with no more detailing concerning housing informality. We can see that this model presents a reasonable adjustment, with a correct forecast for 70.6% of the cases: 75.7% for owners and 56.1% for renters. The life cycle variables such as age, marital status and household size show a good adjustment and the expected signs. The age variable presents a positive coefficient, reflecting the effects of life cycle, where an increase in age increases the probability of homeownership. The longer the time of residence in the municipality the higher the probability of homeownership, with the negative impact of being a migrant dissipating over time. Graphic 4 shows the positive effects of age and negative effects of recent migration (less than 4 years in municipality) over the probability of homeownership.

Graphic 4

Impacts of Age and Migration on Homeownership

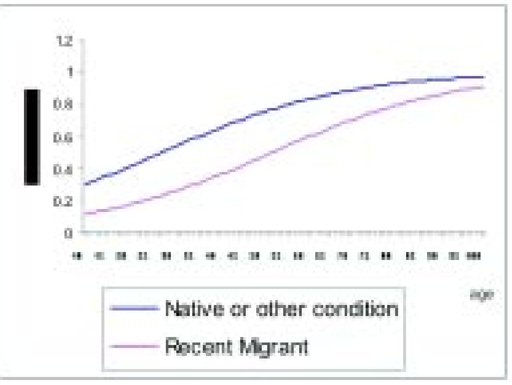


Table 2- Descriptive Statistic of the Continuous variables used in the Regression

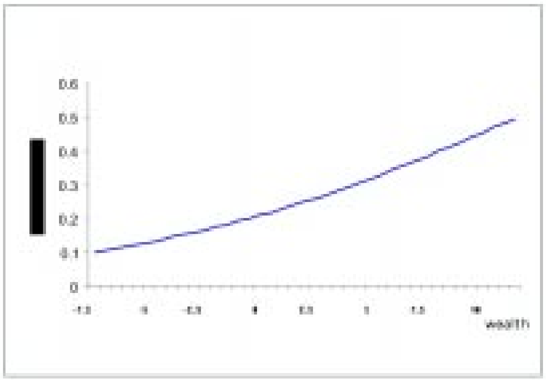
Statistics	Age (Years)	Household Size (person per household)	Economic Dependency (head income/ total income.)	Schooling (Years)	Household Income (R$)	Household Per Capita Income (R$/person)	Wealth
Mean	45.83	3.62	0.65	6.96	1654.07	572.31	5.36
Median	43.75	3.41	0.67	6.86	991.16	300.70	5.40
Std.Deviation	15.90	1.91	0.33	4.60	2431.28	1000.87	3.13

Source: the authors, based on 2005 PNAD

Married couples and household size positively affect the homeownership probability. and family size increase the probability of becoming a homeowner. This results shows that point life cycle variables are quite important to explain household's housing tenure choices. Wealth also has a positive impact over homeownership.

Graphic 5

Impact of Wealth on homeownership probability



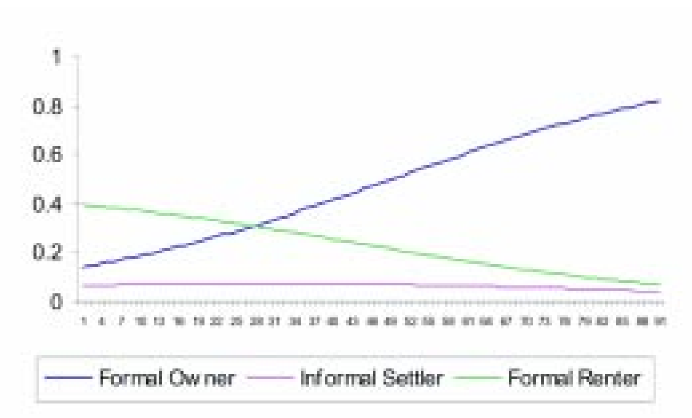
Current income, despite having statistical significance, is not as relevant from an economic point of view, as is wealth to explain tenure choice in Brazil. Education, on the other hand, presents a negative sign, what is contra-intuitive. However, when we qualify information over housing informality, education has a positive impact over the probability of becoming an owner in formal housing markets. Concerning vulnerability in the labor markets, we can observe that public servants and employers have a positive sign over the probability of becoming a homeowner. Quite surprisingly, for formal employees this effect is negative. Women-headed households with children under 14 will have a negative impact over the probability of homeownership. Another contra-intuitive result is the fact that non-afrodescendents head of households will have a smaller homeownership probability when compared with blacks and mulattos. Again, this result is due to a non proper discrimination between formal and informal owners, and shows the need for a better distinction between housing sub-markets. Location variables are significant and present the expected signs: living in metropolitan areas or large cities, decreases the probability of homeownership. A Regional dummy for North region shows that the probability of homeownership increases in less developed regions. Conversely, in the Midwest, the most dynamic region of the country, homeownership presents a negative sign.

In the next two Multinomial Logit Models we try to identify the impacts of housing informality on the tenure choice of Brazilian households. These models help us to clarify some contra-intuitive results over expected signs of the dependent variables like race and education over the probability of homeownership. In the first Multinomial Logit Model we allow a tricothomous dependent variable, where we make a clear distinction between formal ownership, formal renting and informal settlements (either squatters or slum dwellers). Life cycle variables such as age of household head, married couples and household size increase the probability of becoming a homeowner either formal or informal, as compared to rental markets.

Graphic 6 presents the impact of age in tenure choice decisions in the tricothomus model, showing that an increase in the age of the household head increases the probability of owning and decreases the probability of renting in formal housing markets. However, the impact of this life cycle variable is smaller to explain the probabilities of living in a informal settlement.(*For further details on the probability of becoming a slum dweller in Brazil see Morais, Cruz and Oliveira (2003).*) Wealth increases the probability of owing and renting in formal housing markets, but with a negative correlation with housing informality. This results show that the poor households have fewer opportunities in the housing market and must rely mainly on informal settlements to satisfy their needs, confirming the results well establish in the literature. Again, like in the previous model, income variables, albeit representative, are not good predictors of tenure choice.

An employment in the public sector increases the probability of becoming a homeowner in formal housing markets and has a negative impact on the probability of becoming a informal dweller. Vulnerability variables such a gender and race present the expected signs: being an afro-descendent and a single mother with young children increases the probability of living in a informal settlements.

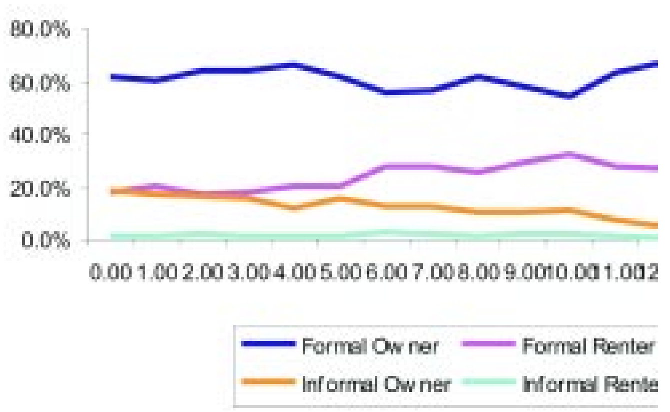
Graphic 6
Effect of Age of Household over tenure choice



Living in a metropolitan area or in a big city decreases the probability of formal homeownership and increases the probability of becoming an informal dweller, showing that housing informality in Brazil is a typical metropolitan phenomena, corroborating Morais, Cruz and Oliveira (2003). The regression also shows that higher educational levels increase the probability of renting in formal housing markets.

With a more detailed Multinomial Logit model, where we distinguish between 4 categories of tenure choice and qualify informal settlers into informal owners and informal renters the main results or the previous models were kept, like the high importance of life cycle variables and small impact of current income to explain formal homeownership. Renters in informal settlements are among the poorest segments of the Brazilian population, even when compared to informal owners. Non-afrodescendents have higher probability of having access to formal housing market either through ownership or renting. An increased level of education positively affects the probability of renting and owning in formal housing markets.

Graphic 7
Observed Impact of education on tenure choice



6. CONCLUSIONS

This study sought to analyze the tenure choice behavior of Brazilian households. The main results show that wealth is a good predictor for formal ownership and that current income, albeit statistically significant has very limited impact on tenure choice decisions. Life cycle variables such as age of the household head, marital status and household size increase the probability of formal homeownership. Considering this results, policy makers in Brazil, who have always design housing policy according to current income levels, might create some kind of housing program that takes explicitly into account households point in the life cycle, such as incentives to first homeownership or subsidies to rental housing for young people, for instance.

More vulnerable households such as the poor, the afro-descendents or single women with children under 14 years old have a higher probability to be in the informal sector, showing that they have limited tenure choice. The inclusion of informality in the analysis improves the quality of the forecasts and changes the sign of the impact of afro-descendents in homeownership. The effect of education on tenure choice is significant, but the sign of the impact depends on the specification of the dependent variable. Education enhances the probability of being in the formal housing sector, either as a renter or an owner. Recent migration has a negative impact on homeownership, but this negative impact dissipates over time.

Generally, the forecast performance of the extended Multinomial Logit Models, that include informal tenure arrangements in the dependent variable, was superior to the simple Logit dichotomous owner vs. rent model. Even if the models perform quite well to explain tenure behavior in the formal sector, in the informal predictions are quite poor. If we restrict our sample to metropolitan areas the predictive power of the models for the informal sector increases.

One general recommendation of the paper is that policy makers should not focus exclusively on owner-occupation as the best housing solution, but that a wider range of housing options with different modalities, prices, qualities and locations should be available to households, from which they can choose the solutions that fits better their housing needs. In this sense, rental housing can offer good housing solutions for young people in search of employment opportunities and newly arrived migrants, with the importance of rental markets to alleviate housing shortage increasing in urban agglomerations and fast growing urban areas. Furthermore, policy makers should give more attention to variables such as wealth, income distribution, household composition and life cycle variables when designing housing policies and programs, if they want to promote economic efficient and social inclusion in housing markets.

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ANNEX 1

Table A.1
Logit Model for Tenure Choice in Brazil
Number of response levels = 2; owner = 1; Renter or rent-free = 0

Explanatory Variables	Estimate B	Standard Error	Wald	Df	Sig.	Exp(B)
Step 1 Race						
Owner	-,048	,001	3566,550	1	,000	,953
Migrant up to 4 years	-1,194	,001	786709,032	1	,000	,303
Migrant _4 to 9 years	-,366	,001	61364,956	1	,000	,693
Migrant 9 years or more	,153	,001	31487,865	1	,000	1,165
Public_servant	,127	,002	5613,953	1	,000	1,135
Formal_worker	-,028	,001	990,790	1	,000	,972
Employer	,035	,002	339,744	1	,000	1,036
Age	,033	,000	1050012,218	1	,000	1,034
Married couples	,252	,001	68109,936	1	,000	1,287
household_size	,185	,000	277257,627	1	,000	1,203
Economic dependency	-,193	,001	19645,605	1	,000	,824
Schooling	-,032	,000	76253,474	1	,000	,969
Wealth	,114	,000	352410,851	1	,000	1,120
Metropolitan Areas	-,074	,001	6637,725	1	,000	,928
Large cities	-,165	,001	27600,961	1	,000	,848
North	,680	,002	146573,796	1	,000	1,974
Midwest	-,122	,001	7792,772	1	,000	,885
Per capita income	,000	,000	238,122	1	,000	1,000
Household income	,000	,000	380,653	1	,000	1,000
Women with children under 14	-,052	,002	697,323	1	,000	,950
Constant	-1,325	,003	245869,466	1	,000	,266

Table A.2
Multinomial Logit Model Tenure Choice 1
Number of response levels = 3; formal owner = 1; formal renter = 2; informal dweller = 3

Explanatory Logit tenure 1	Estimate B	Standard Error	Wald	Df	Sig.	Exp(B)
Intercept	-1,427	,003	198874,415	1	,000	
Non afro-descendents	,014	,001	212,798	1	,000	1,014
Migrant up to 4 years	-1,394	,001	893677,905	1	,000	,248
Migrant 4 to 9 years	-,477	,002	82757,436	1	,000	,620
Migrant 9 years or more	,166	,001	26132,041	1	,000	1,180
Public Servant	,111	,002	3327,792	1	,000	1,117
1- Formal Owner						
Formal Worker	-,027	,001	668,309	1	,000	,973
Employer	-,093	,002	1997,630	1	,000	,911
Age of household head	,039	,000	1037578,611	1	,000	1,040
Married couples	,333	,001	88463,221	1	,000	1,395
Household size	,178	,000	189263,478	1	,000	1,195
Economic dependency	-,128	,002	6249,067	1	,000	,880
Schooling	-,034	,000	68349,850	1	,000	,966
Wealth	,116	,000	264339,430	1	,000	1,123
Metropolitan Area	-,186	,001	29476,729	1	,000	,830
Large Municipalities	-,283	,001	60911,998	1	,000	,753
North	,885	,002	161080,706	1	,000	2,424
Midwest	,094	,002	3242,215	1	,000	1,099
South	,273	,001	43613,771	1	,000	1,314
Per capita income	,000	,000	489,963	1	,000	1,000
Household ncome	,000	,000	698,426	1	,000	1,000
Northeast	,338	,001	76354,813	1	,000	1,402
Women with children under 14	-,062	,002	777,269	1	,000	,939
Intercept	-1,923	,005	133085,483	1	,000	
Non afro-descendents	-,288	,002	34122,506	1	,000	,749
Migrant up to 4 years	-1,408	,003	199393,089	1	,000	,245
Migrant 4 to 9 years	-,595	,003	37546,345	1	,000	,552

Explanatory Logit tenure 1	Estimate B	Standard Error	Wald	Df	Sig.	Exp(B)
3- Informal Dweller						
Migrant 9 years or more	,040	,002	613,370	1	,000	1,041
Public Servant	-,118	,004	965,334	1	,000	,888
Formal Worker	,006	,002	12,055	1	,001	1,006
Employer	-,342	,004	5824,712	1	,000	,710
Age of household head	,014	,000	50417,195	1	,000	1,014
Married couples	,273	,002	22527,695	1	,000	1,313
Household size	,084	,001	16916,993	1	,000	1,088
Economic dependency	-,157	,003	3830,120	1	,000	,855
Schooling	-,079	,000	133532,549	1	,000	,924
Wealth	-,044	,000	13477,226	1	,000	,957
Metropolitan Area	1,800	,002	777486,783	1	,000	6,050
Large Municipalities	,923	,002	164480,356	1	,000	2,517
North	1,108	,003	136085,895	1	,000	3,027
Midwest	-1,001	,004	61898,694	1	,000	,367
South	,236	,002	10798,778	1	,000	1,266
Per capita income	,000	,000	338,244	1	,000	1,000
Household income	,000	,000	2455,421	1	,000	1,000
Northeast	,032	,002	260,341	1	,000	1,032
Women with children under 14	,118	,004	1046,016	1	,000	1,125

Obs. The reference category is: 2 (formal renter)

Table A.3
Multinomial Logit Model Tenure Choice 2
Number of response levels = 4; formal owner = 1; formal renter = 2; informal owner = 3

Multinomial tenure 1	Estimate B	Standard Error	Wald	Df	Sig.	Exp(B)
Intercept						
1- Formal Owner	1,505	,016	8900,632	1	,000	
Non afro-descendents	,144	,004	1235,305	1	,000	1,155
Migrant up to 4 years	-,709	,007	11835,808	1	,000	,492
Migrant 4 to 9 years	,324	,009	1339,718	1	,000	1,383
Migrant 9 years or more	,448	,005	8736,345	1	,000	1,566
Public Servant	,417	,014	914,808	1	,000	1,517
Formal worker	-,142	,004	1100,387	1	,000	,868
Employer	,416	,018	547,516	1	,000	1,516
Age of household head	,052	,000	84126,819	1	,000	1,053
Married couples	,028	,005	27,555	1	,000	1,028
Household size	,333	,002	25149,739	1	,000	1,395
Economic dependency	,018	,007	7,471	1	,006	1,018
Schooling	,034	,001	3290,057	1	,000	1,034
Wealth	,290	,001	72927,735	1	,000	1,337
Metropolitan Area	-3,435	,009	139454,009	1	,000	,032

Multinomial tenure 1	Estimate B	Standard Error	Wald	Df	Sig.	Exp(B)
Large Municipalities	-2,486	,010	65389,153	1	,000	,083
North	-,172	,007	644,633	1	,000	,842
Midwest	1,816	,016	13658,545	1	,000	6,147
South	1,295	,010	16149,922	1	,000	3,650
Per capita income	,000	,000	85,042	1	,000	1,000
Household income	,000	,000	1250,093	1	,000	1,000
Northeast	,437	,005	7709,338	1	,000	1,547
Women with children under 14	-,402	,008	2424,775	1	,000	,669
Intercept	3,332	,016	43404,330	1	,000	
2 - Formal Renter						
Non afro-descendents	,145	,004	1233,178	1	,000	1,155
Migrant up to 4 years	,511	,006	6223,051	1	,000	1,668
Migrant 4 to 9 years	,714	,009	6474,881	1	,000	2,042
Migrant 9 years or more	,315	,005	4253,140	1	,000	1,370
Public Servant	,304	,014	483,184	1	,000	1,355
Formal worker	-,141	,004	1077,780	1	,000	,868
Employer	,391	,018	480,510	1	,000	1,478
Age of household head	,016	,000	8334,092	1	,000	1,017
Married couples	-,232	,005	1926,072	1	,000	,793
Household size	,136	,002	4180,424	1	,000	1,146
Economic dependency	,207	,007	962,299	1	,000	1,230
Schooling	,062	,001	11237,583	1	,000	1,064
Wealth	,154	,001	20414,722	1	,000	1,167
Metropolitan Area	-3,281	,009	126966,085	1	,000	,038
Large Municipalities	-2,260	,010	53903,521	1	,000	,104
North	-1,042	,007	23032,978	1	,000	,353
Midwest	1,727	,016	12330,004	1	,000	5,621
South	1,018	,010	9960,891	1	,000	2,769
Per capita income	,000	,000	96,421	1	,000	1,000
Household income	,000	,000	1201,623	1	,000	1,000
Northeast	,048	,005	93,504	1	,000	1,050
Women with children under 14	-,326	,008	1590,367	1	,000	,722
3- Informal Owner Intercept	,703	,016	1824,367	1	,000	
Non afro-descendents	-,159	,004	1388,468	1	,000	,853
Migrant up to 4 years	-,848	,007	14001,368	1	,000	,428
Migrant 4 to 9 years	,248	,009	729,922	1	,000	1,282
Migrant 9 years or more	,346	,005	4902,084	1	,000	1,413
Public Servant	,223	,014	248,047	1	,000	1,250
Formal worker	-,103	,004	534,476	1	,000	,902
Employer	,192	,018	111,657	1	,000	1,212
Age of household head	,030	,000	25670,563	1	,000	1,030
Married couples	-,042	,005	58,795	1	,000	,959
Household size	,259	,002	14615,976	1	,000	1,296
Economic dependency	-,017	,007	5,772	1	,016	,984
Schooling	-,014	,001	512,515	1	,000	,986
Wealth	,145	,001	17110,301	1	,000	1,156
Metropolitan Area	-1,563	,009	27922,085	1	,000	,210
Large Municipalities	-1,371	,010	19102,882	1	,000	,254
North	,038	,007	29,652	1	,000	1,039
Midwest	,776	,016	2365,225	1	,000	2,174
South	1,344	,010	16893,464	1	,000	3,833
Per capita income	,000	,000	64,625	1	,000	1,000
Household income	,000	,000	839,450	1	,000	1,000
Northeast	,164	,005	1002,282	1	,000	1,178
Women with children under 14	-,270	,009	972,134	1	,000	,764

Obs. The reference category is: 4 (informal renter)

ROLE OF THE NGO SECTOR IN LOW INCOME HOUSING FINANCE

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This article discusses the role of Non Governmental Organizations (NGO) sector in urban housing finance. It examines possible areas/ models of NGO involvement in low income urban housing finance, obstacles and limitations of such involvement. Two successful cases of NGO involvement in housing finance - one a self sustaining initiative by an enterprising NGO and the other, an externally funded project to engage the NGO sector in housing finance – are analyzed and highlighted as best practices. These cases are: i) the initiatives of SEWA Bank in low income housing microfinance and ii) housing finance loan projects by the Asian Development Bank (ADB) geared towards NGOs. In conclusion, some policy guidelines are given to promote the involvement of NGO sector in low income housing finance.

Introduction

The rapid pace of urbanization in India has resulted in the reality that its urban population accounts for about 10% of the world's urban population. According to the 2001 Census, of the nation's total population of 1023 million, 285 million people or 28% lived in India's urban areas. The United Nations Population Division estimates that India's urban population will reach 34.3% of the total or more than one third of the national population by the year 2020. This fast pace of urbanization, combined with a rapid economic growth, has put severe strains to the society and governments in several sectors. While India has seen a considerable increase in the size of middle income group, increasing inequalities in income distribution has left more than a quarter of the population below the poverty line and a higher proportion of the population in the low income category. Urban areas of the nation are, especially, characterized by high incidences of poverty.

The housing shortage in urban areas remains critical, especially for low-income households, despite the recent liberalization of the financial sector and associated policy and regulatory reforms to promote increased participation in housing finance and development. Almost all of the urban poor lack proper housing. It is estimated that the urban housing shortage is as high as 17 million units, suggesting that more than 85 million people are living in chronically poor housing conditions or on the streets of the nation's cities. The Ninth Five-Year Plan's overarching goal of "shelter for all" is still elusive and far from the reach, especially for the urban poor. Since over 90 percent of the housing need is from low-income families, these families are the ones who are most directly impacted by unacceptable living standards and a poor quality of life in all of India's urban centers. Lack of basic services such as water supply, drainage, sanitation and electricity also negatively impact the productivity and incomes of poor urban households, especially those who work in their homes. Since the major source of housing finance for low-income households is their own meager savings and family assets, the principal constraint to the ability of low-income families to improve their housing and living conditions is the absence of affordable credit for housing.

During the past few decades, Non Governmental Organizations (NGOs) have become an integral part of the society. According to IndianNGOs.com, there are currently about 1.5 million NGOs working in the nation. A large number of NGOs are involved in the socio-economic and environmental development programs in India, supplementing the government's responsibility in many development and welfare areas. The NGO sector's extensive grassroots connection and community involvement make it a viable alternative source to provide housing finance for low income urban households.

NGOs and Housing Finance

Although there are a large number of NGOs working in the urban sector in India, most do not have any experience with housing and/or savings or credit operations. However, a few have attempted to provide housing finance to low-income families through innovative projects and community based finance institutions (CFIs). Over the last few decades CFIs, supported mainly by NGOs have become increasingly important in financing shelter for the poor. These groups allow low-income households to gain access to credit *as a community*. They have devised flexible repayment schedules, used a variety of collateral or relied on peer group pressures for loan repayments. These activities, though, are generally confined to small communities within a particular city. Also, their housing finance activities have been quite limited in scale and scope, especially as compared with need (Nayyar-Stone, 2001).

The government, unable to meet the huge housing demand of low income households on its own, is slowly espousing participatory approach involving the NGO sector to deliver shelter-related services and credit to the poor. Creation of self-sustaining finance systems to meet the need for affordable finance of the people when purchasing, building or improving their dwelling units is becoming an important component of national and local policies for the achievement of the goal of shelter for all. For example, since late 1980s (coinciding with 1987 as the Year of Shelter for the Homeless) HUDCO has been providing loan assistance for house construction/upgradation schemes of economically weaker sections initiated by NGOs on a pilot basis. HUDCO also has been extending lines of credits to NGOs for the purpose of implementation of such schemes. In addition, NGOs are also provided with technical assistance and organizational capacity building for implementing such schemes.

Most of the NGO sector's efforts in housing finance have focused on microfinance. Microloans are generally smaller due to the lower-income level of the borrowers, the short maturities and other terms of the loans. In addition, microloans are usually underwritten in somewhat different ways. They are frequently unsecured. If they are secured, it is (1) with savings deposits and valuables (such as gold jewelry) or (2) with group guarantees.

Models of NGO involvement in Housing Finance

Hari Srinivas (1996) offers two "Housing Finance Triangle" models where the bank, NGO, and a people's organization (which represents the low-income groups as members), form nodes of the triangle. A number of such basic triangular models form a network. For example, one bank and an

NGO may "adopt" three to six settlements represented by the people's organization for a number of credit-related activities. Srinivas' two models of linkages between the three primary nodes that can be observed in India are:

MODEL I -

Bank-People's organization with active support of NGO: The most common linkage model is where the banks deal directly with individual people's organizations. In case of most of these organizations, NGOs have provided the initial training and guidance to members in organizing themselves into thrift and credit groups. In many cases, NGOs have also provided some initial financial support to these organizations to augment their resources. These NGOs also keep a watch and ensure satisfactory functioning of the people's organizations even after the linkage. While linkage of the banks is direct with the people's organizations, NGOs have an important role in pre- as well as post-linkage stages.

MODEL II -

Bank-NGO-People's organization: In this model, the NGOs have taken the role of a financial intermediary between the banks and a number of people's organizations. The NGOs take up such responsibilities only in respect of the groups promoted/nurtured by them. These NGOs accept the contractual responsibility for repayment of the loan to the bank. In this respect it is an indirect linkage support to the people's organizations. This model is quite common.

The creation of the housing finance triangle cannot be done in one stretch, but has to be developed in several stages, taking into account the existing problems and shortcomings and the unique situation of each local triangle. The goal of the triangle is to raise the credit worthiness of the low-income groups to a level that makes them attractive to commercial banks and brings them into the mainstream credit market.

The Success Story of SEWA in Housing Finance

SEWA Bank provides an excellent example of a decision made by the NGO Self Employed Women's Association (SEWA) to facilitate housing finance in a formal manner - both lending and deposit taking - as a crucial adjunct to the other activities carried out by SEWA and its other sister organizations. SEWA was established as an NGO in Gujarat in 1972 and the SEWA Bank was registered as a cooperative bank under the dual control of the Reserve Bank of India (RBI) and the State Government of Gujarat in 1974. The Bank's initial capital came from the contributions of approximately 4,000 members, the vast majority of whom are very poor women belonging to SEWA, who each contributed Rs. 10 as share capital. The bank makes loans, accept deposits, and perform all normal banking services. It has enjoyed steady growth, which has accelerated since the liberalization of financial policies beginning in the early 1990s. There are nearly 90,000 depositors, and the bank operates profitably and is financially self sustaining.

In 1987 SEWA Bank entered into housing finance with a pilot project that assisted 110 SEWA members build their dwellings. Since that time, the bank has also been receiving financing for its housing portfolio from the Housing and Urban Development Corporation (HUDCO) and the Housing Development Finance Company (HDFC). By 2000 SEWA Bank had given loans worth over $5 million for housing purposes to over 14,000 economically active low income women. These included loans to repair or replace a roof, wall, floor or door, for monsoon proofing, adding a room or kitchen, upgradation and loans that could be used to buy or build a new house. Loans were also taken for infrastructural facilities such as water or electricity connections or building a toilet or paved approach roads to the houses.

As of January 31, 2002, SEWA Bank's total outstanding portfolio was $2,274,866, of which, $913,086 (40 percent) was housing loans. The number of active loans stood at 9,129, of which 3,677 (40 percent) were housing loans. With the exception of 2001 when financial self-sufficiency fell to 96 percent, SEWA Bank has experienced operating profits since 1998. Perhaps the most salient aspect of SEWA Bank's operations is that there isn't a strict delineation between housing and non-housing loans. SEWA Bank's main housing microfinance products do not significantly diverge from its micro enterprise loans. The main difference is that the client has up to 60 months to repay the loan amount, as opposed to 35 months for a micro enterprise loan. SEWA Bank offers one major housing loan, the Paki Bhit (its principal housing loan). In reality, however, most of the other loans SEWA Bank offers may also be used for housing purposes.

SEWA offers the following loan products for housing: i) unsecured loans, using guarantors as "moral security," which is the most common type of loan; and ii) secured loans, using savings deposits as collateral (the loan can equal up to 85% of fixed deposits or up to 65% of the value of gold jewelry). The average amount of time between a loan application and its disbursement is five days, and is as little as one to two days for repeat clients. The maximum loan amount for an unsecured Paki Bhit loan is Rs. 25,000 (approximately $532) with an average loan size of Rs. 24,823 or $528 (based on 2002 data). In principle, SEWA will lend more than Rs. 25,000 for secured Paki Bhit loans based on the value of the pledged asset; however, in practice it has not lent more than this amount. The nominal interest rate on Paki Bhit loans depends on the loan fund source. Paki Bhit unsecured loans are financed with funds from the Housing Development Finance Corporation (HDFC) and have an interest rate of 14.5 percent, as mandated by HUDCO. Paki Bhit secured loans are financed with SEWA's own funds and carry an interest rate of 17 percent for loans of Rs. 25,000 or less and 18 percent for loans of more than Rs. 25,000.

The Parivartan scheme (an alliance between SEWA Bank, the Ahmedabad Municipal Corporation, and other local NGOs) also deserves particular mention as an innovative partnership model for slum upgrading. The objective of this program is to provide basic infrastructure (road, electricity, water) to people living in the hundreds of informal settlements that dot Ahmedabad's landscape. The Ahmedabad Municipal Corporation contributes approximately 80 percent of the funds needed for the upgrading work. Beneficiary households are expected to contribute the remaining 20 percent – an amount they save with, or can borrow from SEWA Bank. SEWA Bank has used the Parivartan program to expand its client base beyond existing SEWA union members and sees it as an important part of future growth.

SEWA Bank's role in housing finance has been impressive and inspirational for other NGOs. However, with a limited loan portfolio, SEWA Bank's impact has been limited, and the unmet demand for low income housing finance remains quite large.

The Success Story of ADB Housing Finance Loans

India is a founding member of the Asian Development Bank (ADB) and its fourth largest share holder. ADB lending in India has traditionally focused on infrastructure. Since 1986, ADB has approved more than 100 loans to India amounting to $16,448 million. In the area of housing, ADB's strategic goals in India are to (i) strengthen linkages between formal and informal housing finance as a means to increase the availability and affordability of housing loans to low income households; (ii) promote microcredit programs for housing loans and home based, income generating activities, and support low income shelter schemes; and (iii) provide technical advice and expertise in the establishment of a secondary mortgage market as a means to increase the availability of capital for housing finance.

ADB began its role on low and moderate income housing lending in India with a Housing Finance Project in 1997. One of its main objectives was to increase access to the housing finance system by truly low-income households through expanding linkages between housing finance companies (HFCs), community-based financial institutions (CFIs), and NGOs. In addition, it wanted to encourage innovative projects by CFIs and NGOs for low-income housing. The project was implemented through refinance facilities for each of three borrowers: NHB, HUDCO and HDFC. However, only HUDCO was able to allocate its funding for NGOs as initially designated.

Following the moderate success of the 1997 project, in 2000 ADB approved four housing finance loans totaling $300 million for India. During the project preparatory phase, extensive consultations were held with CFIs, NGOs and their members, besides financial institutions. The Project consists of two parts: Part A: lending to low-income households through intermediaries such as CFIs, NGOs, public and private enterprises, and state and local bodies; Part B: increasing lending to low-income households through formal housing finance institutions. With a goal to "improve the efficiency of the hosing finance sector so that it can better serve the housing needs of low-income households" these loans were received by HUDCO, NHB, HDFC and ICICI.

Of these four loans, project report and/or data are available only for the ICICI loan. ICICI used the loans to provide lines of credit for directing housing finance to low-income households through different lending channels, and for financing housing-related poverty reduction subprojects. A systematic and sustainable process was developed whereby financing was made available from ICICI through financial intermediaries such as CFIs and NGOs to assure effective and efficient delivery of market-based housing finance to low-income households. All of the beneficiaries were low-income households. Project resources were focused on assisting poor families with one or more income earners to gain access to housing finance from formal and informal housing finance institutions, especially CFIs and NGOs. With this, the Project promoted market-based lending, as these families would otherwise have to pay higher than market interest rates to money lenders in order to access small housing loans. For the poorest families, the project supported subprojects such as slum networking and home workplace schemes to improve their housing, income earning potential, and access to basic infrastructure and community services.

The entire ADB loan amount of $80 million received by ICICI had been disbursed as of 10 October 2007. Of the total amount, ICICI Bank made available $8.375 million for CFIs and NGOs to provide housing finance for low income households. The actual outputs of the Project as of the Review Mission (held during April - May 2007) were 33,416 loans to low-income households to benefit 167,000 persons. Through this project, various CFIs and NGOs have assisted low-income families to mobilize their savings and have extended loans for housing construction and improvement. Although these efforts are extremely small when compared to the total housing finance demand of low-income households, this project is a very positive example of how external funds can be used by NGOs for low income housing finance.

Conclusion

Insecurity of tenure and uneven income streams exclude the urban poor from housing finance and force them to build their homes tentatively, one wall at a time. Yet the poor lack access to financial institutions and housing finance products tailored to the way they build. This, despite the fact that in major cities of the nation, more than one third of the population lives in slums and that most housing is built informally and progressively.

SEWA Bank's performance as a housing microlender has proven to be successful. Using its model, SEWA has managed to assist thousands of low-income households. Despite this, SEWA Bank has received only limited support from formal housing finance institutions because policy and practice are still based almost entirely on the 'first world', middle-class mortgage model. ADB's housing finance projects have proved that external funding sources can augment NGOs in micro housing finance.

The following lessons can be drawn from the SEWA Bank and ADB loan project experiences for low income housing finance policy into the future:

The poor do have a culture of savings that is located in group savings methodologies. Group savings, apart from enabling households to mobilize financial assets also help them to build invaluable social networks through peer support.

- Small unsecured incremental housing loans work much better than traditional mortgages for the poor, who ought to be the main target of government housing support.

- Providing specialized housing microcredit requires specialized NGOs such as SEWA, whose model is entirely different to that of traditional formal banks.

- One of the greatest obstacles to mainstreaming microfinance today is the lack of adequate human capital. HUDCO and other major formal housing finance institutions need to help community-based micro financing institutions, NGOs and commercial banks equip their managers, supervisors and field staff with skills necessary to manage the myriad challenges of running an efficient microfinance operation.

- Performance-based financing without physical collateral is not recognized by the nationalized banks. Poor people do not have much collateral to offer. NGOs dealing with poor people also do not have physical collateral to offer but can point to their own performance in achieving good recovery rates and strong savings mobilization.

- Lack of trust or confidence in the poor is an access barrier. There is a need to change attitudes toward the poor.

Other measures which could assist the development of NGOs and community based financial institutions serving poor people include:

- Policies favoring the establishment of people's financial institutions.
- Build capacity of existing NGOs providing financial services to the poor by subscribing initial capital and by providing development funds.
- Create an institutional framework which makes adequate funds available in a sustainable fashion over a long period for NGOs providing financial services to the poor.
- Remove the structural and policy constraints for microfinance to the poor.
- Ensure proper monitoring and impact evaluation of microfinance programs.
- Establish a credit rating system for microfinance institutions to enable them to raise capital in the market; define the minimum level of performance indicators which is required for running a sustainable microfinance institution; and identify benchmarks for success.

Additional research also can assist the struggle for more low income housing finance. The following could be very helpful:

- Study various microfinance institutions around the world and identify common factors of success and failure to guide replication.
- Explore mechanisms or operational methods used by NGOs delivering financial services to the poor.
- Ascertain how to tap the savings capacity of the poor.

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DEVELOPMENT OF HOUSING FINANCE IN INDIA — TRENDS, CHALLENGES AND SUGGESTIONS

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Infrastructure, urban development and housing are the major components to be addressed to for economic development of the nation and fulfillment of the social needs of the people. At present, over one billion people—a fifth of the world's population—are either homeless or live in very poor housing. The majority of them are the poorest people of the world's developing countries. Houses are becoming more expensive. One of the important goals of housing policy in developing countries is to lighten the burden of housing expenditure for owner occupiers. The role of the government is changing, from direct participation in the housing and housing finance sector to taking on the role of a 'facilitator', thereby creating an enabling environment to encourage private sector capital.

Today, integration of housing finance into capital markets is a global phenomena, albeit in varied forms. Housing finance is a low margin, high volume business. The availability and cost of housing finance are critical determinants of how well housing markets function. Paucity of funds is the commonality of all housing finance institutions in the developing countries. Housing and housing finance markets have continued to develop within a more liberal regulatory environment, and there have been continuing pressures toward integration of markets. There is an increased access to financing for home ownership and a resulting increase in housing demand and surge in housing prices throughout the world. The shift from public sector and intervention to private finance in the housing and mortgage market is being replicated in developing countries particularly in China and India.

One of the major factors that allowed housing finance to become more linked to global capital markets is the major decline in the interest rates world wide. The globalization of capital market is improving the stability and liquidity-relative to other credit instruments-of the housing finance companies' asset, mortgage-baked securities (MBS). Housing finance companies are creating more opportunities for lenders and reduce mortgage rates for consumers. The globalization of the capital markets and the ability to sell credit risk and interest rate risk will profoundly change the housing markets in times ahead.

HOUSING FINANCE AND MORTGAGE SYSTEMS

It has been observed that there are higher rates of house price appreciation rates in cities (where supply of developable land is limited) relative to national rates of increase (Kim and Watchter 2004). Since a long time, public deposits(deposits on which statutory liquidity ratio has to be maintained) used to be a major source of funding for housing finance companies. Sources of funding for housing finance companies are:

1. own capital
2. deposits
3. institutional borrowings (domestic and international)
4. refinance from the National Housing Bank(NHB)

The mortgage markets are small and fragmented with the unorganized sector continuing to play a dominant role, especially at the lower income strata. The numbers of mortgage products are increasing across all countries, driven both by competition and consumer demand. While formally the differences in types of mortgages used across countries remain fairly consistent, in practice, there is evidence of movement towards shorter-term, fixed interest rates. Mortgage providers are offering a wider range of instruments than a decade ago, from fully variable to long-term fixed interest rates. Very long-term mortgage loans are catching on and are making home ownership possible for new groups of clients.

The current state of product development in mortgage markets emphasise on —

1. lengthening mortgage terms
2. the rise in interest only mortgages
3. the increase in remortgaging activity
4. changing repayment structures

Housing finance is a low margin, high volume business. Housing finance systems can be divided into four major types which are —

1. depository systems
2. directed credit(including provident funds, raised by payroll taxes, and contractual savings schemes)
3. specialized mortgage banks(either government regulated or owned)
4. secondary mortgage market systems

POSITION OF HOUSING AND HOUSING FINANCE IN INDIA

India is home to over 1.15 billion people. With about one in every sixth person in the world living in India, housing assumes significant importance. In India, since independence, the thrust of the government has been on the equal distribution of resources and provision of decent and affordable housing and security of tenure in urban areas. The demand for housing in various urban areas is increasing tremendously. It is believed that only a small percentage of urban housing demand is being met. The provision of housing in India is being undertaken by both the public and private sectors. The housing finance market in India has undergone unprecedented change in recent times.

Given the high costs of construction and the lengthy periods, the public sector has been responsible for the provision of low income housing in most of the urban areas/cities in India. Earlier the contributions for housing finance were mostly from own savings, sale of assets, borrowings from relatives/friends, or the moneylender. But in the era of privatization and globalization, the mind-set of the people has changed with more individuals open to credit culture leading to rapid growth in housing loans from the banks—public or private—and financial institutions.

Over the past fifteen years, housing finance systems in India have undergone revolutionary change. Earlier, housing finance had been provided by heavily regulated local lenders and by government run entities. The Government of India increasingly recognized that markets could deliver financing with lower levels of rationing. The commercial banks have emerged as the major mortgage lenders in India. India is among the best sophisticated financial institutions of any country in the developing economies. For ten years, the private banks have developed; it also has strong existent pensions and insurance sectors. The housing finance sector in India has changed materially in the last fifteen years, and those changes are consistent with those contemplated by the Washington Consensus. There are a total of 44 housing finance companies registered with National Housing Bank though only 22 are eligible to accept public deposits (NHB, 2006).

TRENDS OF HOUSING FINANCE

The development of money market funds eliminated the constraints of interest rate ceilings, providing an alternative investment vehicle largely grounded on highly rated, short-term debt securities. The process of deregulation contributed to the development of commercial banks as primary providers of housing finance. A major part of mortgages are currently funded through private depository institutions that have evolved to replace government entities. What is remarkable is that private banks are able to attract borrowers even though their cost of funds is substantially higher than their government-guaranteed companies. It has been observed that private banks pay more attention to servicing than their government counterparts

The pattern of housing finance has changed over the past 20 years leading to securitization and new types of mortgage contracts. The trend of housing finance in the world is—

1. It can be said that in all countries the trend is towards a wider variety of mortgage types in terms of repayment model, interest-rate structure and term—towards what one much-sited analysis calls ‘product completeness’ (Mercer Oliver Wyman, 2003)
2. Some countries traditionally had long-term fixed rates others mostly variable rates; legal and cultural norms differ, etc.(Stephens,2003)
3. Homeowners in many countries seem to manage their mortgages much more actively than they did ten years ago
4. In several countries, there has been a major move to finance housing through mortgage-backed securities(MBS)
5. There appears to be a trend across most countries towards greater levels of remortgaging

Since 1990s, most of the banks actively got involved in housing finance. Bank lending under housing in India mainly comprises following components —

1. direct lending which entails banks themselves extending housing finance loans
2. indirect lending where banks lend to approved housing finance companies or state housing boards
3. investments in mortgage-backed securities underlying loans securitized by housing finance companies

In India, both specialized lenders as well as commercial banks provide housing finance. Housing finance companies are regulated by the National Housing Bank and commercial banks by the Reserve Bank of India. If we talk of direct housing finance disbursements, private sector banks in India have gained considerable ground. Indirect lending to housing finance by banks is still increasing. Investments in NHB/HUDCO by banks have been decreasing in the recent period.

S.No.	Description	2002	2003	2004
1.	Direct Housing Finance Disbursements	85.66	235.53	328.16
2.	Indirect Housing Finance Disbursements	57.01	67.96	98.45
3.	Investments in NHB/HUDCO	4.78	34.91	27.17

Source: NHB Trend and Progress Report, 2004

In the present time, India has set up a trend for developing countries wanting to kick off their primary housing market. The rising disposable incomes, fiscal incentives, lower interest rate and stable property prices made housing finance attractive business in India. New trends and challenges are emerging, particularly that of affordability of housing for younger households. The Trend of Housing Finance in India is:-

1. Since 1986, building societies have offered mortgage finance to low-income owner in urban areas
2. Housing finance traditionally has been characterized by low non-performing assets(NPA) and given the vast demand for housing loans, almost all the major commercial banks plunged into the business of housing finance
3. Government policy is changing(grants to buyers, increased tax-breaks)
4. More and more, housing finance companies are removing the structural barriers that prevent many mortgage lenders from originating the full spectrum of home loans
5. Housing finance companies are creating more opportunities for lenders and reduce mortgage rates for consumers
6. There has been increased access to mortgage finance
7. Mortgage product development has flourished over the last decade, helped by a general relaxation of regulation and the push towards mortgage-market integration

DEVELOPMENT OF HOUSING FINANCE IN INDIA

The housing finance market has evolved as an oligopolistic market structure(SSKI, 2006) with three dominant players—HDFC, the largest housing finance company, ICICI Bank, the largest private sector bank and State Bank of India, the largest bank in India, which is also a public sector bank. SSKI India Research estimates that in 2005, the three leading housing finance players accounted for approximately 75 percent of the housing finance market. Government appears to have recognized that monopolistic state owned providers of housing finance are not the most efficient or cost effective mechanism to develop and deepen the mortgage market. There has been a long-standing demand to allow pension and provident funds to invest in housing finance. These funds are suppliers of long-term capital. They typically have a low risk tolerance.

As the Indian economy's dependence on agriculture keeps decreasing, greater economic growth has also opened up many new avenues of employment, especially within urban areas. Growing urbanization and occupational shifts from agriculture jobs to manufacturing and service related jobs have been well correlated with changing attitudes towards financial aspects. Today, housing is now at one of its most affordable levels. During the past decade, affordability (i.e. the ratio of the price of a residential property to the annual income of the borrower) has improved significantly due to the rapid rise in household earnings.

Housing finance in India has seen rapid growth on account of various factors such as—

1. favourable demographics
2. increased urbanization
3. relatively stable property prices
4. increase in the supply of better quality constructions
5. lower interest rates

In India, a number of housing finance institutions/ organizations—like Housing and Urban Development Corporation, National Housing Bank, etc.—have been set up by the Government of India to improve the condition of housing and housing finance. State owned companies like LIC Home Finance Co., SBI Home Finance, etc. have been set up to fulfil and satisfy the increasing demand of people for housing finance. Private sectors have also played an important role in this direction.

HUDCO

The beginning of formal housing finance in India first came with the setting up of Housing and Urban Development Corporation (HUDCO) in 1971. It was the first government-led initiative focusing on the social aspects of providing housing. The main focus of HUDCO was to provide finance to low income groups. HUDCO earmarks more than 50 percent of its housing finance portfolio for low-income groups and economically weaker sections. It provides housing finance assistance for house construction or upgradation of economically weaker sections through NGOs. HUDCO was set up mainly—

1. To provide financial assistance to cooperative sector, State Housing Boards and urban development institutions
2. To cater to low-income groups

Private Sector

Private sector involvement in housing finance did not begin until the setting up of Housing Development Finance Corporation Ltd(HDFC) in 1977. HDFC specializes in providing housing finance to cooperative societies, corporate sector and individuals.

State Owned Companies

Towards the mid and late 1980s state owned insurance companies like the Life Insurance Corporation and the General Insurance Corporation of India set up housing finance companies. During this period, a few housing companies were set up either as private limited companies e.g. Dewan Housing Finance Ltd.; or as a joint venture with partnership from the state government e.g.. Gujarat Rural Housing Finance Corporation; or bank sponsored housing finance companies e.g. Can Fin Homes, SBI Home Finance, PNB Housing Finance.

National Housing Bank (NHB)

The National Housing Bank (NHB) was established in July 1988 under the Act of Parliament to function as an apex bank for housing finance. It was set up as a nodal agency to promote housing finance institutions at regional/local level to provide financial support to such institutions and also to regulate and control the activities of housing finance by issuing guidelines to ensure standards and management as per norms. NHB has set up regulations, norms and standards for housing finance and to provide financial support to such institutions. These could be housing schemes taken by cooperative societies, housing construction, infrastructure services, shelter projects, rental housing schemes, etc.

Objective of NHB are —

1. to function as a principal agency to promote housing finance institutions
2. to provide financial support to such institutions
3. to make loans and advances or render financial assistance to scheduled banks and housing finance institutions or to any such authority established by or under any central, state or provincial act and engaged in slum improvement
4. to formulate schemes for the purpose of mobilization of resources and extension of credit for housing

PROGRAMMES AND SCHEMES FOR HOUSING FINANCE

The government of India has launched various programmes, schemes and projects for urban development and improvement of housing. These programmes/schemes also envisages for providing financial assistance for construction of houses. Some of the important programmes are— Valmiki Ambedkar Awas Yojan(VAMBAY), Two Million Housing Programme, Indira Awas Yojana, etc. Private sectors have also taken up initiative, besides external assistance form leading banks/ international organizations.

Valmiki Ambedkar Awas Yojana (VAMBAY)

Valmiki Ambedkar Awas Yojana (VAMBAY) was launched in 2002 to provide financial assistance for improving living conditions of urban slum dwellers, living below the poverty line. Funds are available for upgradation of existing units or for the construction of alternate dwelling units. The amount allocated for the building of a new house ranges from Rs. 40,000 to Rs. 60,000, depending on the population of the city. 50 percent of the sanctioned amount is given by the central government and the balance 50 percent is to be matched by the respective state government.

Two Million Housing Programme

In 1999, the Government of India launched Two Million Housing Programme to complement other state sector housing schemes. The goal was to provide financial assistance to low income groups through formal financiers. The Two Million Housing Programme envisages addition of 2 million dwelling units every year out of which 7 lakhs units ate to be taken up in urban areas and 1.3 million units in rural areas. The Ministry of Urban Development and Poverty Alleviation monitors the scheme.

Indira Awas Yojana (IAY)

In 1986, the Indira Awas Yojan(IAY) was launched to provide grants for construction of houses to below poverty line families in rural areas, scheduled caste, scheduled tribe and freed bonded labourers. Since 1996, IAY benefits have also been extended to ex-servicemen, widows or next-of-kin of defence personnel and para-military forces killed in action, irrespective of their income criteria. The cost under IAY is shared between the centre and states on a 75:25 basis. Grant assistance is provided to the extent of Rs. 25,000 per house for normal areas and Rs. 27,500 for hilly areas.

Private Sector Initiative

Private sector initiatives for low-income groups and economically weaker sections include financial intermediation by housing finance companies, banks, micro-finance institutions, NGOs.

<u>Bilateral and External Assistance</u>

Various projects relating to slum improvement and

EWS housing in urban areas are being undertaken with the help of the overseas funds—Japan Bank for International Cooperation(JBIC), Overseas Development Administration(ODA)—in collaboration with the Ministry of Urban Affairs and Employment.

PROBLEMS AND CHALLENGES TO HOUSING FINANCE IN INDIA

Some of the problems to the housing finance in the earlier time were:

1. Bureaucrats originated and serviced mortgages through rules(some formal, others not) instead of through market tested underwriting guidelines
2. Mortgages were managed administratively, rather than financially
3. Approval times were exceptionally long—sometimes as much as 3 to 6 months from application to approval
4. The allocation process was often political, rather than financial
5. The public sectors, for many years, were not held to performance standards, so these had little incentive to service loans, and so loan performance was poor

The exponential growth seen over the past few years and the possible limits of housing finance in reaching a wider segment of the population is posing a threat to the government. There is a rich source of funds, which sadly yields inadequate financial resources for housing in India. Some of the housing finance company or bank such as the housing finance company promoted by State Bank of India, SBI Home Finance, has wound up operations after being saddled with extremely high non-performing assets. The current housing finance system is through a rather loose partnership of the public, private and the community sector. Some of the emerging challenges to housing finance in India are —

1. There is no appropriate credit supply for housing finance for low-income groups
2. Private Banks orient all their activities to higher-income groups rather than low-income groups
3. There is bad experiences and failures of public housing banks that have attempted to supply subsidized credit
4. In the use of funds, some financial institutions and local authorities do not seem to adhere to national/international norms and standards
5. The existing laws and legal mechanisms relating to housing finance are not conducive to the growth of housing sector
6. The formal housing finance sector continues to elude the lower-income groups
7. India still lacks a well-developed model to accurately forecast mortgage repayments
8. For most housing finance companies, raising resources to fund the housing business has become increasingly challenging
9. The majority of the population, especially the low income groups, lack access to housing finance from the formal sector
10. Beyond groups like HUDCO, there is a lack of specialized groups catering to the needs of low-income segment in India

SUGGESTIONS TO IMPROVE HOUSING FINANCE

Financial markets can serve as a vehicle to unlock the locked funds in large finance houses. There is a need for delivering completed houses to deprived sections of the community who can not afford to build for themselves. NHB has proposed amendments to the National Housing Bank Act, 1987 to provide for a simple procedure for creation of charge over the assets financed and easy enforcement of claim by HFIs and scheduled banks assisted by it.

Some suggestions to improve housing finance in India are —

1. The government should make sound macro-economic policies: low mortgage interest rates triggered by sound macro economic policies are more important in developing mortgage markets than tax incentives and subsidies
2. To address the need for housing, particularly for the middle and lower income groups, more priority and resources for funds must be focused and directed at the problem.
3. There is an urgent need to address the institutional and regulatory aspects of housing finance companies
4. There is a need for administrative regulators to create a favourable environment to foster a housing finance system
5. Changes need to be introduced in order to reduce costs and expand the availability of mortgage and improve home ownership rates for low-income households.
6. Funds from private and public, national and international, formal and informal sources for development of housing should be used effectively.
7. Lead actors with significant amounts of funds should be brought in by persuasion into housing finance.
8. Local authorities should be encouraged to come together and work out how part of the huge financial resources held by financial institutions can be redirected to housing
9. There is an urgent need to strengthen and expand the capacity of financing institutions, including NGOs/CBOs, to respond to the needs for housing finance of poor families
10. Keep transaction costs low and make mortgage registration systems more efficient
11. Create transparent markets for housing lenders through approved valuation methods
12. Create house price index regularly and perfectly
13. For housing finance companies and banks, there is a need to explore creation of an independent benchmark for adjustable rate mortgages which can be adopted by all players, thereby leading to more credibility
14. There is a need to reinstate regularly the erstwhile provision of exemption of withholding tax on international borrowing by housing finance companies
15. The National Housing Bank should develop a single unified database of market information which can be continuously updated and shared with all market players
16. The exposure norm be enhanced for banks lending to housing finance companies
17. Small steps such as creating a favourable environment to facilitate foreign direct

investment and allowing real estate mutual funds in housing will help stimulate the housing finance sector.

CONCLUSION

Several housing models for low-income housing are currently in existence in India. Most of the people in India rely too much on the primary mortgage market, where building societies do all the direct financing. India has a well-developed financial system that allows for more sustainable housing finance systems, among them secondary mortgage markets. After the framing and execution of Housing Policy in India, the building societies have offered mortgage finance to low-income owners in urban areas. We have to identify obstructive national, state and local government policies, that inhibit people from obtaining housing loans and get secure tenure on their land.

Central Government has, upto a quite extent, managed to help itself to housing funds by framing various policies, laws, rules and regulations. Realizing that the task of improving housing cannot be achieved by the public sector alone, the Government of India formulated Housing Policy in 1992, 1994, 1998 and 2007 which encourages the participation of the private sector, community based organizations (CBOs) and individuals in the provision of shelter and housing. Housing finance players have been successful despite unfavourable conditions. To help boost home ownership, the government has offered tax incentives to borrowers who opted for a home loan. Interest payments on a housing loan upto Rs. 150,000 per annum and annual repayment upto Rs. 100,000 are eligible to be deducted from the gross income of the borrower.

The demand for housing finance depends on the demand for residential accommodation, as very few purposes of property or building plots are made from just the purchaser's own resources. Reasons for increasing housing finance in India are:

1. rising disposable incomes
2. lower interest rate regimes
3. fiscal incentives by banks/housing finance institutions
4. relatively stable property prices

The housing finance sector in India has undergone unprecedented change over the past fifteen years. During the next few years, the Indian housing market will benefit from the favourable economic situation. In the long term, the increasingly population figures will make more demand for residential accommodation. Governments have to withdraw from direct participation in the housing and housing finance sector and instead need take on the role as facilitators to create the enabling environment to encourage private sector capital. It is believed that the problems of accessibility and affordability that thwart the progress of housing in India need to be addressed.

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"Our research shows that by the year 2050, six billion people-two-thirds of humanity-will be living in towns and cities. And as urban centres grow, the locus of global poverty is moving into towns and cities, especially into the burgeoning informal settlements slums of the developing world."

- Ann Tibaijuka,
Executive Director of
UN-Habitat - 2006

THE IMPACT OF THE SUB PRIME CRISIS ON SUSTAINABLE HOUSING FINANCE

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Introduction

Asian economies remain relatively immune to the sub prime crisis in the United States (US) and the resulting credit crunch in the US and Europe. However, they faced heightened uncertainty according to a recent report of the United Nations (UN press release 27-3-2008). India would be best placed among the developing countries to ride out the impact of a US recession according to the same report, because investment in the booming manufacturing and services sector will remain the main driver for the Indian economy (Financial Times, 28-3-2008).

The Mortgage Bankers Association predicts that a record number of Americans will have to hand over the keys of their house in 2008.[2] At the end of July 2007 many American house owners were no longer able to pay their mortgages. Often they had received an interest free period, or started when the interest was at record low levels. After some years they had to pay a higher than market rate of interest to make up for the low rate at the beginning. In the last three months of 2007 the number of mortgage owners not paying their debts was two percent, twice the number a year ago (Financial Times, 7-3-2008). According NRC (5-3-2008) ten percent of the house owners has a mortgage that is higher than the current value of their house.[3] Seriously delinquent loans increased from 6 to 9 percent. This can be a reason for the mortgage-providing bank to recall the loan.

The technology or IT bubble recession in 2001 was probably the first real global financial recession. Global financial markets have grown exponentially and so have the risks of transferring a crisis from one region to another (Van Dijk, 2008). The current sub prime crisis and the resulting credit crunch is an example of such a global financial crisis. It is important for urban managers, because it has a lot to do with mortgages and with efforts to regulate markets, in this case national and international capital markets.

We will first introduce the sub prime crisis and ask the question why it has had such huge effects. Subsequently the mechanisms contributing to the crisis will be described. This is the process of securitization, or the taking of the balance of mortgages to be able to attract fresh capital. Finally the reaction to the sub prime, or by now the credit crisis will be described. On the one hand the reaction of the US authorities and on the other hand the reaction of parties suffering from the sub prime crisis: investors who bought the bonds based on mortgages.

The sub prime crisis

In total six million house owners have sub prime loans and one million of them would have problems with repayment. In total 13.4 percent of the sub prime mortgages are in the process of handing over their keys, while another 20 percent has problems in paying in time.

The sub prime crisis has erupted in the second half of 2007 and disrupted financial markets. It contributes to economic stagnation in the US. It also disrupted a number of mechanisms that we normally assume to be working all the time, such as interbank lending. It led finally to a credit crisis. Interbank lending is down and that is the reason why this crisis is sometimes called a credit crunch or a crisis of confidence in the system. Banks do not trust each other any more, because they don't know how deep other banks are into trouble. Dodd (2007: 15) asks the question how a modest increase in seriously delinquent sub prime mortgages (amounting to an additional $ 34 billion in troubled loans) could disrupt the $ 57 trillion financial system in the United States so much. He answers the question why did it go so wrong by pointing at changes in the structure of the home mortgage market in the US. A structural change took place when the market was divided up in three categories of below-investment grade mortgage-backed securities between 2003 and 2006: prime, sub prime and alt-A. In three years the percentage of prime mortgage went down from 52 to 26 percent, while sub prime increased from 34 to 44 percent and alt A from 14 to 30 percent. The problem of the banks is that through the crisis their solvency is at risk. That was the reason why Bear Stearns needed to be rescued by the American government through JP Morgan.[4]

Total losses of this crisis are have been estimated early 2008 to be US$ 400 billion, while the International Monetary Fund (IMF) now estimates that the financial difficulties are set to cost US$ 1,000 billion (Financial Times, 9-4-2008). The recapitalisation requirements for the concerned banks are put anywhere between US$ 300 and 1000 billion (Financial Times, 6-3-2008). A substantial part of this recapitalisation comes from so-called sovereign funds, the investment vehicles of countries like Singapore, China and Norway. For example the Singapore Investment Corporation (SIC) provided US$ 5.3 billion to the Swiss bank UBS (with 2.7 billion from an investor from the Middle East, NRC, 14-2-2008). The City Bank Group attracted US$ 14.5 billion from different investors (also SIC and the Kuwait Investment Fund) through preferential convertible funds. Such investments imply an increasing role for investors from the East. The question is whether they are just in it for the money, or whether they also want to use their investment for strategic purpose. In Europe a Belgian-Dutch bank Fortis started a joint venture with Ping An, a Chinese insurance company. This is certainly a case where both parties have a clear strategic objective. Fortis eyes the Chinese market of fortunate private individuals while Ping An would probably gain international experience in asset management and opens its offices in China to Fortis.

Box 1 Housing finance in developing countries using securitization

Thailand has experienced a substantial expansion in formal housing finance during the last 20 years. The National Housing Bank (a public agency) has tapped into private capital markets and facilitated the development of a strong secondary mortgage market, with mortgage loan portfolios rising strongly. The rapid expansion in mortgage finance is a key factor in Bangkok's recent housing boom. It could not have happened without central government support in the form of capital adequacy allowances (to encourage commercial banks to make more loans for housing), maintenance of market interest rates, and other stimulating measures.

Securitization and the role of Secondary Mortgage Facilities (SMF)

In general any specialized financing institution can securitize a cash flow coming from a pool of successfully operating (infrastructure or housing) projects (Duett, 1990). Securtization helps to make available new capital to finance additional housing and infrastructure projects submitted by municipalities. A well functioning Municipal Development Fund (MDF) could also build up the specialized expertise to do so and hence increase the flow of funds it can invest in infrastructure.[1]

Secondary Mortgage Facilities (SMF) were first developed in the US where mortgages themselves were actually being sold in a secondary market after origination in the primary market. The term used to refer to funding of mortgages after origination, for example by using them as collateral. In some countries secondary mortgage facilities issue bonds collaterised by mortgages. The facility is an institution, which pools together mortgage backed loans and issues its own bonds (securitization). The institution can help to check the quality of the mortgages and would monitor and enforce agreed standards for mortgages. The basic idea is that SMF can increase the money available for mortgages substantially. Securitization has become more and more important for developing countries.[2]

Securitization boils down to taking off the balance a number of mortgages, which would otherwise immobilize the institutions capital for a large number of years. A mortgage providing institution normally runs out of capital after a few years and financial engineering is required to source new capital resources. Securitization is the instrument to achieve that. If done properly and the mortgages are sold as bonds, it means the institution is able to attract fresh capital and can continue providing mortgages. There is one snag. Once you have sold the bonds, you also don't feel responsible for the mortgages any more. Hence at a certain moment the quality of the mortgages was not as important as the turning over of the capital. Hence banks went into providing mortgages to people who usually would not qualify for such a housing loan. They also accelerated the speed at which banks increased lending because this reduced the amount of capital needed for loans. If you off load the loans from your balance sheet you don't need to increase your own capital as a provision for default.

The investors who bought this collateralised debt (or credit derivatives for that matter) are now facing the consequences, because the value of their assets is reduced and already one hedge fund concentrating on this kind of debt (Carlyle Capital Corporation; NRC 14-3-2008) has gone bust. It used a leverage of 30 to buy mortgage-backed bonds. Other financial institutions, which had invested in this kind of debt, are now taking their losses (box 2).

[1] A Municipal Development Fund (MDF) provides financing and contributes to institutional development by enhancing the financial and technical capacity of municipal government. A MDF is an autonomous institution in India for the promotion of municipal infrastructure (Van Dijk, 2004). They were developed in a number of countries, including India (in particular in Tamil Nadu and West Bengal) and usually supply technical assistance and training as well as loans.

[2] There are several interesting cases documented of secondary mortgage facilities. One on Argentine (Financial Times, 8-2-1996), one by M. Lindfield on the Fiji islands (IHS, 1995) and one from a participant in an IHS course from Jordan (Rshaidat, 1996). This allows an analysis of the differences between the three cases (and the US model) and their usefulness for countries that do not yet have a Secondary Mortgage Facility.

Box 2 Examples of write off because of sub prime crisis

BNP Paris (France) writing off almost one billion euros in its fourth quarter of 2007 (NRC, 20-2-2008). For all of 2007 the wrote off 1.725 billion euros.

Crédit Agricole (France) took a loss in the last quarter of 2007 of 875 million euros (Financiele Dagblad, 6-3-2008). However the write down on the mortgage related investments were much higher (3.3 billion euros).

City Bank Group (US) has written off for the last quarter of 2007 US$ 18.1 billion on sub prime debt and 4.1 billion on consumer loans.

The ING Bank (the Netherlands) charged 194 million euros to its profit and loss account as losses during the fourth quarter of 2007 on sub prime mortgages. Furthermore it depreciated its investment in the slightly better Alt-A mortgages (down 751 million euros in the last quarter of 2007).

UBS (Switzerland) wrote off 12.6 billion euro on its mortgage backed bonds (NRC, 14-2-2008). It has also bought collateralised debt obligations (CDOs) based on mortgages for some of its customers for whom they do the asset management. The bank is now hold liable by some of its customers for the huge losses incurred (NRC, 25-2-2008).

How did it go wrong?

Many Western banks bought for several billion dollars the so-called mortgage backed bonds, or in terms of the financial world the collateralised debt obligations (CDOs). These products are the result of securtization. What counts is the quality of the underlying assets, in this case mortgages. Rating agencies would provide their estimate of the corresponding risks, but their role as independent evaluators is also criticized. During this crisis it became clear that the rating agencies have often been too optimistic. Now many banks have to take their losses. They announced huge write-offs as the consequences of the subprime or the ensuing credit crisis, as shown in box 2.

Other factors playing a role are the impact of the regulators, including Basle II, which require a bank to use a model to calculate the required reservations. For risky investments it would have to reserve more of its own capital than for normal investments. The regulatory system has changed to so called value to market systems to appreciate the risks of banks.[1] That also means their capital requirements now depend on the market value and needs to increase when the underlying assets loose their value. There is a cry now for more regulation in the mortgage market. At the same time the authorities do not want to increase regulatory competition, or competition based on the financial regulation in a country. That would mean that financial institutions would move to countries which have the least, or the most flexible regulation.

Hedge funds are a special case. One they are no banks and hence not supervised in the same way. Given they tend to be heavily leveraged, some faced so-called margin calls when the banks consider that the value of the underlying collateral has decreased too much. This led to the end of the Carlyle fund. A number of regulatory requirements work against the market in this case.

Another factor is the development of the rate of interest, which in the US went up in 2007 (which made problems worse for mortgage owners). In the US the rate is now decreasing, to deal with the crisis and to promote economic growth, while in the European Union (EU) the interest may go up or remains at the same level to protect the economy from inflation.

The reactions of the major financial actors depended on the type of CDO they bought. The banks that really burned their fingers were the ones who bought a lot of so-called subprime mortgages, which have a high risk of default. The Dutch ING bank however invested mainly in Alt-A mortgages, which are known to be less risky. In Germany the government had to save the WestLB bank and a small enterprise bank (IKB) because of solvency problems and in the UK the government nationalised Northern Rock, which ran into problems for having invested too much in dubious mortgages.

Reactions: different ways of dealing with your losses

Different banks and insurance companies have reacted quite differently to the subprime crisis. As will be shown al lot depends on the accounting rules. We will give an example of a company writing of nothing or very little and one that took all the losses in one single blow.

One insurance company in the Netherlands did not write off anything. They had anticipated say 10 percent non payment and would see over the time of the CDO (5 to 10 years) to what extent this figure was too low (say it would turn out to be 15% default), or too high (only 5%). They claimed they did not buy them to trade, but rather as a long term investment.

The ING Bank (The Netherlands) wrote off in total euro 945 million in 2007 (NRC, 20-2-2008). It reduced the value of its investments not more because it considered the Alt A mortgages slightly better than sub prime (say only 5 percent chance of default). In total the losses were almost one billion euro, but spread over the profit and loss account and achieved by writing off some of the value of the assets. This leads to a small necessary increase of the banks own capital.

Other banks, and in particular US banks followed the Basle II rules. They concluded it was cheaper to take the maximum loss now by selling the CDOs at very low price (because nobody wants to buy them at the moment), but then they would not need to make important reservations, which immobilize their capital.

Finally there is another Belgian bank (Fortis), which tried to be very transparent. It told its shareholders that the loss of value could be anywhere between 200 million and 1.2 billion Euros, depending on the eventual non paid mortgages. This is a very wide margin, but may be realistic because the eventual losses depend on the development of the rate of interest and the US programs to help mortgage owners who are currently in trouble.

The Rabo bank in the Netherlands recently announced a substantial loss on its mortgage portfolio, although it was not even sub prime quality debt. It depreciated 1.4 billion Euros. Forty percent was charged against the net profit of the bank, the rest concerned the value of the portfolios of the bank, which contained some products based on sub prime mortgages. It leads to a lower value of these portfolios on the balance sheet. The bottom line is that the different directors will say that not all subprime mortgages based debt is the same and that some of them were better prepared for this crisis than others.

What has been done to prevent the crisis?

The US official rate of interest has been lowered substantially to promote the economy, to help people suffering from their mortgage interest and repayment obligations. In fact, the US government has undertaken several programs to help the victims of the sub prime crisis. For example the authorities have given them an additional month to solve their problems. The chief of the Federal exchange system in the US (the FED) has urged banks to forgive some loans (Financial Times, 5-3-2008) and the minister of finance encouraged the banks to collect fresh capital. He also asked them to reduce the number of forced sell offs of houses.

The financial authorities in different countries are working on solutions for the current crisis. The European Central Bank is working closely with the FED and in particular bankers want to avoid a system breakdown. For that reason Bernanke, the chairman of the FED, announced a series of measures, which usually had only a limited effect and did not yet solve the underlying problem of the lack of trust between bankers. The question is

[1] In 1993 the US accountancy regulators approved a rule, which led to the use of market-to-market accounting standards. It means that US banks have to carry more securities at market value. This was a reaction to the previous US savings and loan crisis.

Box 3 US policies to mitigate the negative impact of the crisis

1. Making it easier to by providing another month to customers before they have to hand over their keys
2. Decreasing the rate of interest several times and substantially
3. Expressing the willingness of the FED to accept US$ 200 billion of sub prime, or in poor debt, as collateral for credit form the Central bank system
4. Saving Bear Stearns by providing huge guarantees to JP Morgan and forcing a deal, which means the shareholders are loosing most of their capital.
5. Allowing investment banks to also borrow directly from the FED.

how effective these measures will be. It will determine how long the crisis is going to last and how deep the recession will be. While finishing this contribution US and European governments were considering to buy up these mortgage backed securities as the most radical solution to revamp the financial system (Financial Times, 22-3-2008).

Conclusions

Financial engineering tried to develop financial instruments to serve markets that were previously not served. It stimulated homeownership for people in the US previously not able to buy a house. However, the risks were underestimated and the sub prime crisis followed when a number of people were facing repayment problems on their mortgage, which may have been provided at a very low rate, but currently requires the payment of a much higher amount. Then followed the credit crunch. Interbank lending was substantially reduced because the banks did not trust each other any more and the rates for inter-bank lending had increased substantially.

The crisis was due to the construction of such intricate securitised instruments, which were meant to spread the risks of mortgages and to refinance institutions involved in mortgage lending. The idea was to enable sub prime debt (the lowest quality mortgages, which are seven percent of all US mortgages) to be spread more widely. In the end it also spread the crisis of trust in the financial system quite widely leading to governments considering buying up these mortgages backed securities as the solution to avoid a financial system crisis (Financial Times, 22-3-2008).

US banks took their losses quickly and want to continue doing business. Some EU banks try to minimize their losses and have spread them over 2007 and 2008, but in this way they contribute to the uncertainty how much losses are still in the system. Total losses maybe up to US$ 1000 billion, while only 193 billion have been taken so far by the banks. One of the problems is that the value of these distressed assets is difficult to assess since there is no real market for them.

The basic problem of a lack of trust may be difficult to overcome. If banks remain convinced that other banks have not yet taken their full losses they may remain reluctant to lend to them. In that case the credit crisis will still linger on, until sufficient banks have taken their losses. The question is than how much will be lost it the resulting economic recession. A lot will depend on the development of the world economy and the rate of interests the central bankers will fix.

Originally it looked like the crisis in the financial world had nothing to do with the real economy. The predictions for the growth of the European, Indian and Chinese economy were all quite upbeat, although the growth would be slightly lower than in 2007. Gradually the news became more pessimistic. The US may be in a recession, the EU may not grow as fast as predicted and even China is thinking about 8 percent growth rather than the standard 10 percent growth that we have been used to since 1978. Finally the R word (recession) was out and Lex (in Financial Times, 20-3-2008) concludes that a “brief shallow dip along the lines of 2001 looks like wishful thinking”.

During the last decade there were very few barriers to secondary market development. Certainly a certain legal and institutional infrastructure must be in place and mortgage insurances may help. However, the role of the government has not helped to avoid the subprime and ensuing credit crisis and may make it more difficult for developing countries to develop secondary mortgage facilities on a larger scale.

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Notes :

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2 The average price of houses decreased nine percent in the United States in 2007 (NRC, 5-3-2008).

3 We are talking about 2.2 million houses where the value of the house is lower than the size of their debts. The largest number are concentrated in states like California, Florida and Ohio.

4 In 2007 already two hedge funds of Bear Stearns were liquidated.

5 A Municipal Development Fund (MDF) provides financing and contributes to institutional development by enhancing the financial and technical capacity of municipal government. A MDF is an autonomous institution in India for the promotion of municipal infrastructure (Van Dijk, 2004). They were developed in a number of countries, including India (in particular in Tamil Nadu and West Bengal) and usually supply technical assistance and training as well as loans.

6 There are several interesting cases documented of secondary mortgage facilities. One on Argentine (Financial Times, 8-2-1996), one by M. Lindfield on the Fiji islands (IHS, 1995) and one from a participant in an IHS course from Jordan (Rshaidat, 1996). This allows an analysis of the differences between the three cases (and the US model) and their usefulness for countries that do not yet have a Secondary Mortgage Facility.

7 In 1993 the US accountancy regulators approved a rule, which led to the use of market-to-market accounting standards. It means that US banks have to carry more securities at market value. This was a reaction to the previous US savings and loan crisis.

MACROECONOMIC AND MICROECONOMIC MODELS OF THE DEMAND FOR HOUSING AND MORTGAGE CREDIT

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1.0 INTRODUCTION

The feasibility of estimation of models of the demand for housing or residential credit in transition countries is limited by a major problem: that of translating "potential demand" for housing and residential credit into "effective demand." Indeed, this is a critical problem not only in the transitional economies but also wherever government policies and institutions have not been designed to be responsive to market signals concerning demand.

Problems of inadequate "effective demand," as commonly perceived, can result from policy failure on both the demand side and the supply side of the housing market. For example, households occupying heavily subsidized housing, that would with smaller or no subsidies consider moving to another dwelling or even another city, may have little or no incentive to move as long as subsidies exist. Similarly, incentives to change dwellings will be minimal if available housing is priced beyond the means of most households—perhaps as a result of government-imposed restrictions on land development or house construction.

Regarding mortgage credit, parallels exist concerning either demand- or supply-side barriers to translating potential demand into effective demand. If the possibility of government-subsidized credit exists for a household, even if it must wait for years to take advantage of it, the household will be reluctant to seek unsubsidized credit at market rates of interest. This is a demand-side barrier to effective demand for private mortgage credit. On the supply side, any policy that either rations credit or increases its price (such as inefficient administrative practices in granting credit or failure to manage credit risk properly) will restrict the ability to translate potential demand into effective demand.

Any study of the demand for housing and mortgage credit should seek as far as possible to identify the key barriers on both the demand and supply sides of the market for housing and credit and to quantify their relative impacts. By so doing, priorities can be established for policy, administrative, and institutional reform. Potential beneficiaries of a better framework and better information about barriers to realizing effective demand for housing and credit include households (particularly those wishing to move), producers of housing, land developers, banks and other financial intermediaries, and both local and central governments.

Studies to identify and quantify barriers to effective demand should be conducted so as to identify both the magnitude of potential demand and past and current effective demand and, by doing so, illustrate the stakes of modifying current policies and institutions. They should then also attempt to find the sources of shortfalls in effective demand for both housing and residential credit according to both demand- and supply-side policy shortcomings.

Among the key questions to be addressed in this paper are the following:

1. How does one define “potential demand” and “effective demand” in operationally meaningful ways for (a) housing and (b) mortgage credit?

2. How can potential and effective demand be measured?

3. What are the key determinants of potential and effective demand? What are the key barriers to translating potential into effective demand?

4. How can the effects of these determinants (and of barriers) be measured and quantified?

5. What are the key priorities for policy and institutional reform to narrow gaps between potential and effective demand?

Key elements of a series of studies to address these questions include the following:

1. Background studies of key housing indicators.

2. Studies of the aggregate supply-demand relationship using stock/user matrices.

3. Studies of the structure of housing prices
   — Hedonic price studies
   — User cost studies

4. Traditional models of demand for housing and mortgage credit.

5. More realistic models of demand and supply.

6. Policy simulations regarding barriers to realizing effective demand.

This paper briefly describes each of these key elements. Technical models are developed for both macroeconomic and microeconomic approaches. Adjustments to these traditional models are then discussed. Please note that this paper has been developed for the use of various technicians, including economists, statisticians, and technical housing policy analysts.

2.0 BACKGROUND STUDIES

Key indicators related to housing and mortgage demand include the following:

— Housing price (rent, selling prices (existing/new), hedonic prices, and price of other goods)

— Dwellings

— Households/dwellings

— Floor area per person (distribution)

— Infrastructure adequacy (distribution)

— Construction

— Construction per 1,000 households

— Investment

— Investment/GDP

— Outstanding mortgage credit

— Number of outstanding mortgages

— New mortgages credit

— New mortgages

— Loan-to-value ratio on outstanding mortgages

— Loan-to-value ratio on new mortgages

— Terms (interest rate, term in years) of outstanding mortgages

— Terms (interest rate, term in years) of new mortgages

— Lending rates for other sectors, credit use:
— Consumer loans
— Import/export credits
— Enterprise loans
— Other background variables
— Consumer prices
— Prime lending rate
— Exchange rate

These and other indicators should be examined to establish basic trends and distributional aspects of indicators. Key indicators should then be compared to:

— Transition economies
— Other countries at similar income levels

For a variety of reasons, it is not particularly fruitful for transition countries to undertake comparisons with the United States or Western Europe. Not only do income and relative prices differ, the various barriers that cause the "gap" between potential and effective demand, discussed below are likely to be much more pronounced. For a good policy-related analysis of key housing indicators focusing on Eastern Europe, and, in some cases, countries with comparable incomes, see Hegedüs, Mayo, and Tosics (1996).

The main sources of these indicators include household interview surveys, borrower surveys, banks and financial institutions, and the central bank. For comparative data, information is available from the Housing Indicators Program (see Hegedüs, Mayo, and Tosics) 1996.

3.0 BASIC DATA AND DESCRIPTIVE ANALYSES

3.1 Stock/User Matrices

Stock/user matrices are simply cross tabulations of housing types and household types. They serve to inform those preparing data for model estimation where the important elements of a sample of households are located, and are good tools for descriptive analysis. Each element of the matrix is equal to the number of households of a given type (A, B, ..., Z) occupying housing of a given type (1, 2, ..., N).

Housing Type	Household Type A	B		Z	
1	N_{1A}	N_{1B}	. . . . .	N_{1Z}	N_1
2	N_{2A}	N_{2B}	. . . . .	N_{2Z}	N_2
.	.	.		.	.
.	.	.		.	.
N	N_{NA}	N_{NB}	. . . . .	N_{NZ}	N_N
	N_A	N_B	. . . . .	N_Z	

Matrices may encompass either the entire housing stock, or subcomponents or strata based on, for example, subsector (public, private, cooperative); new or existing; city/country, urban/rural; city size; etc. Housing types will typically be defined based on unit size, quality level and, perhaps, location. Household types typically encompass household size, income, and, perhaps, age of head of household and gender of head of household.

Stock/user matrices are useful in examining both regularities in patterns of occupancy and anomalies (such as small households living in big units and vice-versa). The existence of many anomalous housing allocations helps identify disequilibria and distortion that can serve as the focus of policy reform efforts.

Data sources for stock/user matrices include:

A. Household interview surveys

1. Census
2. Special purpose

B. Borrower surveys by mortgage-granting institutions

3.2 The Structure of Housing Prices

Studies of the structure of housing prices should focus on construction and analysis of two measures of price—hedonic price indices and indices of user cost. Data requirements for each include:

A. Hedonic price studies

1. For recent movers only
   a. Market rent
   (1) Contract rent
   (2) Utilities

   b. Sale price

   c. Housing characteristics
   (1) Dwelling unit characteristics
   (a) Size
   (b) Interior facilities—bedrooms, bathrooms, kitchen, sharing of facilities
   (c) Condition—state of repair, quality of interior finishes, working condition (reliability) of utilities (heat, hot water, electricity)

   (2) Building characteristics
   (a) Number of units in building
   (b) Stories in building, story of unit
   (c) Access to places of employment, shopping, schools, churches, etc.
   (d) Centrally heated

   (3) Institutional status
   (a) Private
   (b) Cooperative
   (c) Existence, magnitude of subsidies
   (d) Relationship of tenant/ purchase to previous owner

   (4) Length of stay

Data for hedonic price studies are typically based on household interview surveys.

B. User cost studies

1. For renters
   a. Contract rent
   b. Utilities payments
   c. Transactions costs (key money, agency fees, etc.)

2. For owners
   a. Market value of unit (from owner estimate or hedonic price studies)

   b. Outstanding mortgage balance

   c. Mortgage terms
   (1) Interest rate
   (2) Term
   (3) Monthly payment

   d. Initial down payment percentage relative to purchase price

   e. Property tax rate (effective rate as percentage of market value)

   f. Maintenance expenditures as percentage of market value

   g. Estimated depreciation rate

   h. Interest rate on non-housing investments

l. Interest rate on non-housing-based borrowing (e.g., consumer loan rate)

j. Estimated annual rate of appreciation of housing

k. Non-priced mortgage characteristics—prepayment penalties, default costs, excise taxes and transfer fees, etc.

Sources for user cost studies include household interviews, borrower interviews, and interviews with bank officials.

4.0 TRADITIONAL MODELS OF DEMAND AND SUPPLY

Models of housing demand and supply that are traditionally applied within market economies can provide useful comparisons and insights into the nature of housing market disequilibria. Some of these models are briefly outlined below.

4.1 Microeconomic Demand for Housing and Credit

The simplest and most widely applied models of housing demand are log-linear models that assume constant price and income elasticities of demand. These facilitate straightforward comparisons with demand models estimated in many developing and industrialized countries. They are:

1. a. Cross-section data

$$V^* = a y^{\epsilon_y} P_h^{(\epsilon_p+1)} Z^{\gamma} \text{ .... (!)}$$

where:

V^* = market value (for owner-occupied housing) or rent (for renters)

y = household income

P_h = price per unit of housing (from hedonic price or repeat sales studies)

Z = sector of household characteristics and a, e_y' e_p' and Y are to be estimated

b. If cross-section and time-series data are to be pooled, rewrite (1), deflating as necessary

$$\frac{V^*}{P} = a \left(\frac{Y}{P}\right)^{\epsilon_y} \left(\frac{P_h}{P_o}\right)^{\epsilon_p+1} Z^{\gamma} \text{ ...... (2)}$$

where:

P = consumer price index

P_o = price index for non-housing goods

2. Alternative estimates for the price of housing can be developed based on:
   a. Hedonic prices
   b. Repeat sales prices
   c. User cost (see Sections 3.2.B above, and 4.1.3, below)

3. Mortgage credit demand may be estimated most simply by assuming that it is proportional to demand for owner-occupied housing, where the constant of proportionality, *l*, is just the average or "typical" loan-to-value ratio:

$$m^* = l\, V^* \text{ .... (3)}$$

Note: If a user cost definition of housing price is used, the total user cost of owner-occupied housing is:

...(4)

where:
r = mortgage interest rate
M = mortgage amount
t_p = property tax rate
c_m = maintenance cost (percent of value)
d = depreciation rate (percent of value)
l = interest rate on non-housing investments
g = expected capital appreciation rate on housing

The term rM is the interest cost of a mortgage and the second term is "other housing costs," including the cost of foregone interest on the downpayment $l\,(1\text{-}l\,)\ V$. For a fixed loan-to-value ratio, if $M = lV$ and:

$$UC_h = \left[\ (rl + t_p + c_m + d + i(1-l) - g)\ \right] V \quad \text{...(5)}$$

where the bracketed term is the "price per unit of housing" to be used in demand estimation, mortgage demand depends on mortgage interest rates and down payment requirements, as well as other elements of user cost, even within this simple "proportional" credit demand model.

4.2 Macroeconomic Demand for Housing and Credit

In macroeconomic demand models, emphasis is not placed on estimating the rent or value of housing for which households are willing to pay, but rather on estimating the demand for stocks (or flows) of housing demanded, where "stocks" are often measured in terms of number of dwellings. Models can be estimated of the demand for a stock of housing, a stock of corresponding mortgages, or a flow of housing as follows:

(1) Demand for dwellings

a. Housing stock demand

Models of housing stock demand generally posit a relationship between the "desired" housing stock and a number of economic and demographic variables; e.g.,

Housing Type	Household Type A	B		Z	
1	N_{1A}	N_{1B}	. . . . .	N_{1Z}	N_1
2	N_{2A}	N_{2B}	. . . . .	N_{2Z}	N_2
.	.	.		.	.
.	.	.		.	.
N	N_{NA}	N_{NB}	. . . . .	N_{NZ}	N_N
	N_A	N_B	. . . . .	N_Z	

..... (6)

where:
N^*_t = desired dwelling units at timet
HH_t = number of households at timet
y_t = income at time t
Z_t = a vector of demographic characteristics of household heads and household composition
$(P_h\ /\ P_O\,)$ = relative price of housing (compared to other goods) at timet t

N_t * cannot be observed directly but can be inferred from observing the process by which the housing stock evolves over time. For example, this year's stock may be related to last year's stock by the following:

$$N_t = N_{t-1} + \gamma\ (N_t^* - N_{t-1}) \quad \text{..... (7)}$$

In this traditional "stock-adjustment" model this year's stock is equal to last year's stock (N_{t-1}) plus a fraction of the difference between the desired stock and the actual stock. Combining terms in (7) and substituting (6) yields:

$$N_t = \gamma f \left(HH_t\ ,\ y_t\ ,\ Z_t\ ,\ \left(\frac{P_h}{P_o} \right)_t \right) + (1 - \gamma)\ N_{t-1} \quad \text{... (8)}$$

Regressing current stock on lagged stock and the presumed determinants of N* permits estimation of the adjustment rate, (; the effects of exogenous variables on the desired stock of housing, and the stock of desired housing itself. Having estimated the parameters of (8), it is possible to estimate the unobservable "desired" housing stock.

In transition economies, given the constrained supply responses associated with heavily interventionist policies, econometrically estimated parameters of (8) may be of interest for forecasting but of less interest for determining "potential demand," which may be better estimated by examining relationships between the size of the housing stock for *market economies* and the determinants indicated in Eq. (6).

It might be assumed, for example, that once market forces are unleashed in a transitional economy such as Poland's, the housing sector will be increasingly pulled in ways to replicate the sectoral performance of market economies. Countries such as Turkey, Chile, and Malaysia, for example, with income relatively similar to Poland, had 1.20, 0.99, and 1.03 households per dwelling in 1990, compared with a figure of about 1.09 for Poland (Warsaw) in 1990. International comparisons facilitated by data from efforts such as the Housing Indicators Project can establish "norms" of such outcomes in relation to the determinants listed in Eq. (6). "Expected" levels of housing stock in relation to households and other variables can be established based on estimates of Eq. (6) using cross-country data, assuming that an average $N_t = N_t^*$. Estimates of N^* for Poland so obtained can be interpreted either directly, as "potential demand," or can be entered directly into a stochastic version of Eq. (7) and used as an alternative method to estimate
the adjustment rate, Y.

While other variables can be useful to characterize "stock demand," such as the market value of dwellings, alternative measures entail far heavier data requirements and are likely to be measured with far greater error than the number of dwellings.

In any case, estimations of both the desired stock and the rate of adjustment of actual to desired stock (whether inferred from Polish time-series data or from international comparisons) are likely to be highly revealing concerning both the differences in potential and effective demand and the degree to which various barriers impede the process of adjustment toward equilibrium levels of housing stock. Indeed, one could, in principle, let the adjustment rate be modeled as policy dependent, whereby, for example, it depended on the availability of mortgage credit, mortgage terms and conditions, etc.

In that case, Eq. (8) would be rewritten:

$$N_t = \gamma(M)\, f\left(HH_t\,,\, y_t\,,\, Z_t\,,\, \left(\frac{P_h}{P_o}\right)_t\right) + (1 - \gamma(M))\, N_{t-1} \ldots \quad (9)$$

where econometrically N_t would be estimated by regressing current stock on the lagged stock, N_{t-1}; presumed determinants of the desired stock, f( ); a vector of variables affecting the speed of adjustment, ((*M*); and interaction terms between *M*, arguments of f (), and N_{t-1}.

Modeling of the aggregate relationships described above requires timeseries data on the stock of dwellings, determinants of "desired demand" for housing stock, and determinants of the "speed of adjustment" of actual to desired demand.

b. Mortgage stock demand

In a "naive" model of the demand for outstanding mortgage credit, demand for mortgage credit is directly linked to demand for housing, assuming a fixed loan-to-value ratio and observing that:

$$S_t^* = M_t^*\, N_t = l\, V_t^*\, N_t \ldots\ldots\ldots \quad (10)$$

where S_t* = stock of mortgages at time t. In the naive model, it is implicitly assumed that mortgages are granted as they are demanded, in effect assuming that there are no independent determinants of mortgage demand and supply.

c. Dwelling flow demand

In addition to demand for the stock of dwellings, it is useful to know the potential flow demand for dwellings—the number demanded to be built within a given time period. This number is interpreted simply as the amount of new construction demanded per unit of time (in fact, it is equal to demand for new construction plus net additions to the stock from conversions and mergers). Investment demand is closely related—it is equal to the flow demand for dwellings multiplied by the average value per dwelling. The flow demand is defined as:

$$C_t = \gamma(N_t^* - N_{t-1}) + \delta N_{t-1} \ldots (11)$$

where C_t = construction in time period t, which is equal to the adjustment toward desired demand Y(N_t* - N_{t-1}) plus replacement of dwellings from the stock, which are removed at a rate δ. One may think of "desired construction" as the full adjustment plus replacement (N_t* - N_{t-1} + δ N_{t-1} = N_t*+ (δ-1)N_{t-1}), where the amount by which adjustment fails to occur is (1-Y) (N_t* - N_{t-1}).

This formulation suggests that factors which impede the speed of adjustment from actual to desired demand constitute the source of many of the potential barriers that impede translation of potential demand into effective demand. The "naive" models described above are all useful as descriptive devices, albeit with modest analytical soundness. More useful and realistic models would take account of particular institutional and historical features of the transition economies to explicitly model the key barriers to translating potential into effective demand.

5.0 MORE REALISTIC MODELS OF THE DEMAND FOR HOUSING AND CREDIT

As discussed above, factors affecting the speed of adjustment toward "desired demand" are a theoretically important determinant of the failure to translate potential demand into effective demand. Within the transition economies, the single most striking factor associated with slow adjustment toward "desired demand" is low residential mobility rates. In 1990, annual rates of residential mobility in Warsaw were estimated to be 2.6 percent. Within 18 cities studied in the Housing Indicators Project with highly restrictive policy frameworks, annual mobility averaged only 5 percent, while among 18 cities with "enabling" policy frameworks, mobility averaged 10 percent—four times as high as that in Warsaw.

Consequently, studies focusing on determinants of residential mobility would appear to have great utility in gaining an understanding of the barriers to effective demand. In a microeconomic model of residential mobility, households will move if their utility after a move, after accounting for moving costs, is greater than or equal to their pre-move utility, i.e. if the following inequality is satisfied:

$$U(V^*, y - UC^* - T) \geq U(V_0, y - UC_0) \ldots (12)$$

where:
V^* = desired demand
y = income
UC^* = user cost of housing for V^*
T = transactions cost (search, moving, etc.)
V_o= initial housing

UC_o = initial user cost of housing

If the utility of pre-move and post-move conditions is taken as stochastic, the probability of moving, p_m, may be expressed as:

$$p_m = p_m\left(U\left(V^*, y - UC^* - T\right) - U\left(V_o, y - UC_o\right)\right) \text{..... (13)}$$

Alternative means exist to estimate Eq. (13):

A. Substitute terms for V^* and UC^* from sections above, as well as determinants (or estimates) of T (V^* from demand equation for recent movers; V_o from hedonic equation applied to population; UC from user cost estimate terms); predict p_m; define conditional mortgage demand as $p_m M$.

B. Assume explicit functional form for $U(\ )$; calculate $U(V^*-UC^*-T) - U(V_o - UC_o)$; if $U(V^*. .) > U(V_0 . . .)+T^c$, then household is assumed to move (where T is an assumed critical value of the transactions cost). Effective mortgage demand =

$$\sum_{i-1}^{N} l\ m_i^*$$

for all households for which the condition is satisfied.

Note that each of these assumes that housing of value V_i * will be produced and available for each household and that all households will meet lending criteria atd the same rate as households tdhat have already moved. Neither of these may be the case.

C. An alternative is simply to observe rates of transition from status other than owneroccupied housing to owner-occupied housing and assume those rates to be stable over time.

For example, assume that transition rates (p_{ij}) differ by initial status (public,cooperative, private; renter, owner) and that the transition process is governed by a firstorder Markov Process.

$$[N_{1t}. \ . \ . \ N_{Nt}] = [N_{1t-1}. \ . \ . \ N_{Nt-1}] \begin{bmatrix} p_{11} & p_{12} & \cdots & p_{1N} \\ p_{21} & p_{22} & \cdots & p_{2N} \\ . & . & & . \\ . & . & & . \\ p_{N1} & p_{N2} & \cdots & p_{NZ} \end{bmatrix} \text{...(14)}$$

where N represents the number of households in a given "state" at time t and p_{ij} are transition probabilities (assumed constant over time from state i to state j).

Observe average mortgage assessment and house value for recent owners (or for recent owners transitioning from each state) and calculate the weighted average mortgage amount for households from each originating category.

$$\hat{M} = \sum_{i=1}^{N} \bar{M}_i\ p_{i1}\ N_{it-1} \text{..... (15)}$$

One could disaggregate to other categories (income, household size, or location) and the model retains its generality.

Data would come primarily from household interview surveys (probability samples) and, to a lesser extent, from borrower surveys focusing on mortgages for selected originating categories.

D. Another alternative explicitly takes account of supply constraints and borrowing restrictions. Borrowers are subject to two restrictions on their ability to borrow—one based on housing payments relative to income, the other based on down payment requirements relative to assets. The first of these may be stated as:

$$a_r^T \ M \leq ky \ .... \ (16)$$

where a_r = loan amortization factor for interest rate = r for N periods

e.g., 30 years, a_r = .08/yr = .00734/mo.

M = mortgage amount
k = maximum mortgage payment to income ratio (e.g., 0.28-0.33 in U.S.— which should bear some relation to the "normal" ratio in specific countries). Evidence from the Housing Indicators Program suggests that at an equilibrium value of R/y (housing payments relative to income) in market economies with incomes similar to Poland would be about 0.25. Values for such countries are: Turkey, 0.25; Chile, 0.28; Malaysia, 0.26.

With a fixed loan-to-value ratio = 0.25 l, $M^* = lV^*$

$$a_r \ lV^* \leq ky \quad ... (17)$$

$$V - M = D \leq F \quad ... (18)$$

The second constraint is on household liquid assets (F) relative to down payment requirements:

$$V - M = D \leq F \quad ... (19)$$

If housing were supplied at a level to put each household in equilibrium, and a fixed loanto- value ratio l is assumed, the equilibrium condition would be:

$$F \geq (1-l) \ V^* \ ... (20)$$

Eq. (20) might not be satisfied even if suppliers put forward V^* for each y, since a constant payment ratio is not consistent with housing demand functions; that is, to the extent that equilibrium spending differs from the payment rule (especially if the equilibrium payment is greater). In addition, the stock of housing offered for sale might be different from equilibrium V^*s. If the actual distribution of Vs is on average well above V^*s for most of the population, Eq. (20) will not be satisfied. Similarly, if this is true, many households will not have adequate financial assets to purchase more expensive housing than their equilibrium level.

Here, one must examine the value distribution of recently sold houses and calculate which households satisfy both payments and assets conditions. That is, for each household calculate (using data from borrower and household interview surveys) :

$$y - \frac{a_r \ l \ V_{\min}}{k} = C_p \ ... (21)$$

$$F - (1-l) \ V_{\min} = C_a \ ... (22)$$

Where V_{min} is the observed "minimum value" dwelling recently purchased, it is probably best to use dwellings at the fifth to twentieth percentile as better reflecting the average incremental unit. C_p and C_a are excess income for payments and excess assets for down payments, respectively. If households meet payments and down payment requirements, it is then assumed that their demand for housing will become "effective demand" based on mortgage lending.

For households with $C_p \geq 0$ and $C_a \geq 0$, calculate l^* (from the demand function estimated for recent movers) and $M^* = lV^*$. Potential mortgage originations will be equal to the number of households meeting the two conditions. The potential mortgage demand will be lV_i * for households meeting the conditions.

A comparison of the magnitudes of housing demand and mortgage demand from the calculations from subsections C and D above can be revealing concerning the degree to which effective demand for credit is limited by (1) limited mobility of potential movers (in part a function of low user costs and/or higher-quality preexisting housing); (2) income and assets constraints on borrowing; and (3) supply restrictions concerning available housing types and values.

Note that in subsections C and D a number of "what if" experiments can be conducted. In C, transition probabilities can be modified, either parametrically without reference to empirical relationships to policy and other variables or based on empirical relationships such as those estimated in Section 4.1 above. In D, varying assumptions can be made concerning interest rates, lending terms, payments ratios (*l*), loan-to-value ratios, and the distribution of housing values offered. In the last connection, a more realistic assumption is made than that posed in D; i.e., that households will purchase if:

$$y - \frac{a_r \, lV_{\min}}{R} \geq 0 \; \ldots \; (23)$$

and

$$F - (1-l)\; V_{\min} \geq 0 \; \ldots \; (24)$$

is that there is a set of critical values, V_c^j, associated with each of a number of household types *j* = 1, . . . *J*, V^j_{min}, which satisfy:

$$U_j\,(V_c^j,\, y - UC_{\frac{j}{c}} - T) = U_j\,(\,V_o,\, y - UC_o\,)$$

These values of V_c^j are the quantities of housing that make households indifferent between moving and staying. With assumptions about the form of the utility function, observations on initial housing V_o and income, and estimates of transactions costs and user costs, values of *UC* could be calculated for each household. Those estimates could then be compared to the recent distribution of observed housing purchased, and calculations could be done of the number of households able to satisfy income and assets requirements as well as to locate housing in the appropriate value class.

Policy Simulations.

Once a number of the basic parameters of housing demand have been established, as well as basic information on other parameters such as loan-tovalue ratios, mobility rates and the value distribution of new and existing housing, it will be useful to conduct a series of policy simulations focusing on:

— Measures to increase mobility;
— Measures to increase transition to ownership;
— Effects of changing loan terms and conditions;
— Loan-to-value ratio;
— Interest rate;
— Down payment constraints;
— Payment constraints; and
— Decontrol of rents and extended housing allowance.

These simulations can reveal which of a number of alternative policies, separately or in combination, can have the greatest effects on translating potential demand into effective demand and improving the efficiency of the housing sector.

HOSUING FINANCE IN ASIAN COUNTRIES

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Many countries in Asia have established government housing finance agencies to help develop their domestic housing finance markets and associated bond markets. In this paper, we examine the role of these agencies. We consider seven Asian countries - Hong Kong, India, Japan, Korea, Malaysia, Singapore and Thailand. In five of these countries -Hong Kong, Japan, Korea, Singapore and Thailand - the housing finance agencies have a visible involvement in domestic housing finance markets. In India and Malaysia the housing finance agencies have smaller, but still significant roles. Applying techniques already used to quantify US government subsidies, we estimate the size of the subsidies received by housing finance agencies in these seven Asian countries. We also estimate the distribution of the subsidies amongst households, financial institutions and the housing finance agencies themselves. The government subsidies reported in this paper should be regarded as estimates only, as bond and mortgage-backed securities (MBS) markets in Asia are still relatively immature, and the quality of the available data on housing finance agencies' operations varies considerably.

We present three main findings. First, the estimated level of government support varies across the seven countries, but is generally small relative to the economy. There is Considerable government support in Singapore, but the level of government support is quite low in Hong Kong, India, Japan and Korea and negligible in Malaysia. Second, the housing finance agencies have transferred most of the benefit of their government support to either households or financial institutions. In Hong Kong, Korea, Singapore and Thailand, households receive the bulk of the subsidy, whereas in India and Japan, banks and other financial institutions are the primary beneficiaries.

Third, housing finance agencies that lend directly to households have more influence on housing finance markets and better control over the distribution of their government subsidies than housing finance agencies that focus on providing liquidity to the banking system.

The paper is structured as follows. The following section presents the government supported housing finance agencies in Asia that are considered in the paper. Section three discusses the contributions to the development of housing finance markets made by these agencies. Section four considers the housing finance agencies' risk management. Section five explains the nature of government support provided to the housing finance agencies. Section six outlines our methodology for estimating the level of government support received by the housing finance agencies. Section seven presents our estimates of the size of the housing finance agencies' government subsidies and their distribution. The final section concludes.

Housing finance agencies in Asia and the Pacific

At present several Asian countries, including Bangladesh, Hong Kong, India, Japan, Korea, Malayasia, Pakistan, Singapore, Sri Lanka and Thailand, have active government supported housing finance agencies and other countries in the region arfe considering establishing such agencies.

{ **In Canada,** the government established Canada Mortgage and Housing Corporation (CMHC) in 1945 to help alleviate an acute housing shortage. The housing agency is wholly government owned and has a formal government guarantee. It provides mortgage insurance for individual housing loans, and guarantees mortgage-backed securities (CMHC (2006)}.

The **Jordan** Mortgage Refinance Company (JMRC) is a joint venture between the government of Jordan (20 per cent), the Central Bank of Jordan (18 per cent) and private banks. JMRC was established in 1997, with the twin objectives of: providing liquidity to the banking system by lending to banks secured against housing loans and developing Jordan's domestic bond market. The agency does not have a formal government guarantee, but private bond investors rank ahead of the government if the agency is declared bankrupt (Chiquier et al (2004)).

In **Mexico,** the government runs the country's two largest mortgage lenders - Institute del Fondo Nacional de la Vivienda para los Trabajadores (Infonavit) and Sociedad Hipotecaria Federal (SHF). Infonavit and SHF have been the most active in Mexico's securitisation market and maintain a dominant presence in mortgages even as the industry has grown (Skelton (2006)). The government established Infonavit in 1972 to manage a workers housing fund and promote their housing rights. Infonavit finances mortgages for workers via a mandatory 5 percent payroll deduction. At the end of September 2006, the agency held a loan portfolio of more than US$40 billion. SHF was created in 2001 to spur development of the secondary mortgage market by guaranteeing credits and creating a central database on borrowers, loans and mortgage-backed securitizations. The Mexican government explicitly guarantees SHF's obligations through 2009. The agency held $8.8 billion in directly funded home loans at year-end 2005. Through partial guarantees, SHF has assumed a significant amount of the credit risk in securitized mortgage pools, lowering issuers' transaction costs and reducing the credit enhancements needed to meet a particular rating standard. In addition to originating mortgages, SHF has been a major funding source for Mexico's mortgage finance companies, who receive 35 percent of their funding from government sources {Infonavit issued its first mortgage-backed security in 2004, with $68.2 million in 12-year bonds. The agency followed with a series of 20-year bonds backed by low-income mortgage portfolios.}

In the **Netherlands,** the government owned and guaranteed Nationale Hypotheek Garantie (NHG) insures households against the risk that they will be unable to service their mortgage to 'structural repayment problems' such as unemployment, long-term illness or divorce (Van Dijkhuizen (2005)). Since 1998, NHG has also insured households against falls in house prices - if the borrower is forced to sell their home at a loss because of a structural repayment problem, the agency will make up the shortfall.

In **Sweden,** the National Housing Credit Guarantee Board (BKN) is a national government agency under the Ministry of Sustainable Development.21 BKN administers government credit guarantee programmes for housing development. The government is fully responsible for BKN debt. BKN's guarantee compensates the lender for losses on a guaranteed loan due to the borrower's inability to service the loan. The main principle is that the property must be sold if the lender wants to be compensated through the BKN guarantee. The primary role of the BKN is to promote housing policy and to work for effective guarantee provision for the financing of housing development by running its guarantee operations in a business-like way within existing regulations. Government credit guarantees can be provided for loans advanced by financial institutions operating in Sweden.

In Switzerland, the Pfandbriefzentrale, is one of two institutions with the right to issue mortgage bonds (Pfandbriefe). The Pfandbriefzentrale is the issuing agency for the Swiss cantonal (regional) banks, of which most benefit from outright guarantees or implicit guarantees from cantonal governments (Moody's Investor Service (2005b)).

In this study we focus on the agencies in Hong Kong, India, Japan, Korea, Malaysia, Singapore and Thailand. [[In Bangladesh, the House Building Finance Corporation was set up by the government in 1973 to increase the supply of housing finance. The housing agency is in part funded via government-guaranteed bonds and government deposits (see Karnad (2004) and www.bhbfc.gov.bd). In Pakistan, the House Building Finance Corporation has been active since 1952 and provides loans to low and middle income families. It is jointly owned by the Pakistan government and the State Bank of Pakistan, and receives direct funding from the central bank (www.hbfc.com.pk). In Sri Lanka, the Housing Development Finance Corporation Bank, which was partially privatised in 2005, has been active since 1984. It provides loans to low and middle income families. It is a regular issuer of bonds and MBS (www.hdfc.lk).]]

The primary role of the government housing finance agencies in all of these countries is to help develop their domestic housing finance markets and associated bond markets. In five of these countries - Hong Kong, Japan, Korea, Singapore and Thailand - the housing finance agencies participate directly in domestic housing finance markets by providing loans and/or mortgage insurance to households. In the remaining countries - India and Malaysia - the housing finance agencies have smaller, but still significant roles. [[In 2004 and 2005, the years for which government subsidies have been estimated, the Japanese housing agency (Government Housing Loan Corporation) participated directly in the housing market. But since then, the housing agency has refocused and scaled down its operations. In 2007, it was renamed Japan Housing Finance Agency, and the new agency has concentrated on issuing MBSs, rather than directly lending to Japanese households (Fuchita (2006), JHFA (2007)]].

In all the countries the housing finance agencies were established in response to concerns that there was a shortage of housing finance in the economy - or that there would be a shortage in the near future. Over time, most of these agencies have been given the additional task of promoting the development of domestic mortgage bond markets. The underlying notion was that bond markets would provide loan originators with an additional source of funding to complement deposits.

In Japan, the Government Housing Loan Corporation (GHLC) was established in 1950 to provide a stable supply of housing finance and improve the quality of the nation's housing stock (Konishi (2002)). The Japanese government wholly owned the GHLC. The housing finance agency did not have a formal government guarantee, but market participants generally regard it as having strong implicit government support. The GHLC traditionally focused on providing long-term, fixed-rate housing loans to households through a network of loan originators. The housing finance agency retained these loans on its balance sheet, funding them using a combination of Fiscal Investment and Loan Program (FILP) loans and agency bonds.[The FILP is a government program that makes loans and investments for public purposes. The GHLC received FILP loans from the Japanese government to help fund their home loans to individuals.] The housing finance agency also provided insurance services to households who borrowed from private lenders. In 2003, the GHLC began shifting its focus from direct lending to households to developing MBS markets. The housing finance agency started buying mortgages from private financial institutions, and it securitises those mortgages together with its own loans through its 'Monthly' MBS program. It also began offering credit guarantees on MBSs issued by banks and other financial institutions. In April 2007, the GHLC was replaced by Japan Housing Finance Agency (JHF). The JHF is wholly government owned and specialises in securitising housing loans that are originated by private financial institutions. The agency does not lend directly to Japanese households.s Its other responsibilities are managing (including servicing and securitising) GHLC's existing loan book, providing mortgage insurance to private financial institutions, and advising households on the most appropriate mortgage.

The Korea Housing Finance Corporation (KHFC) was set up in 2004 to ensure that households had access to long-term housing finance (KHFC (2005)). It is jointly owned by the Bank of Korea (82 per cent) and the Korean government 18 per cent. The KHFC has a formal government guarantee, with the Korea *Housing Finance Corporation Act* requiring the government to cover the agency's annual losses. The KHFC offers 30-year fixed-rate mortgages to households through a network of ortgage originators. It funds these mortgages by issuing KHFC-guaranteed MBSs. The housing finance agency also provides mortgage insurance to households who borrow from banks and other financial institutions. Prior to KHFC's establishment, most private lenders only offered 3-5 year mortgages, though they have since lengthened the maturity of their loans.

In Malaysia, Cagamas Berhad was established in 1986 under the Companies Act to help rectify a shortage of housing finance in Malaysia by promoting the development of the secondary mortgage market (Kokularupan (2005)). Malaysian and foreign banks own fourfifths of Cagamas, with the remaining fifth held by Bank Negara Malaysia. Cagamas supports the Malaysian Government's policy of encouraging home ownership, particularly for the lower income households, by providing liquidity to the financial institutions.

Cagamas does not receive any government support. Cagamas operates solely in the secondary mortgage market. It purchases conventional and Islamic housing loans from financial institutions with or without recourse basis, and funds these loans by issuing agency bonds and MBSs. Its bond and MBS issuance thus helps develop the Malaysian private debt securities rket. In recent years Cagamas has broadened its loan purchases to include industrial property oans, hire purchase and leasing debts, and credit card receivables.

The Hong Kong Mortgage Corporation (HKMC) was established by the Hong Kong Monetary Authority in 1997 to promote wider home ownership in Hong Kong by increasing the availability of housing finance and to help develop domestic bond markets (Yam (1996)). The HKMC is wholly owned by the Government through the Exchange Fund.[[The Hong Kong Exchange Fund is made up of the fiscal reserves and foreign currency reserves of the Hong Kong government (www.info.gov.hk/hkma/eng/exchange/l]

The housing finance agency does not have a formal government guarantee, but it has access to additional equity capital and a revolving debt facility from the Exchange Fund. The view from market participants is that the HKMC has a strong implicit government guarantee. The HKMC initially focussed on increasing the supply of housing finance in the economy by purchasing pools of mortgages from banks and other loan originators -thereby providing them with an alternative, more stable source of funding over the business cycle than deposits. It funds these loan purchases by issuing agency bonds and MBSs. Over recent years the HKMC has broadened its role in the Hong Kong housing finance market. It has established a large mortgage insurance program, which allows banks to offer loans with a maximum loan-to valuation ratio of 95 per cent without taking on additional credit risk. It has also expanded its loan purchases to include other household debt and some commercial loans.

The Indian National Housing Bank (NHB) was established in 1988 to promote a sound and cost-effective housing finance system and to help alleviate housing shortages, particularly in rural areas (Reside et al (1999)). It is wholly owned by the Reserve Bank of India, and has a formal government guarantee via the *National Housing Bank Act (1987),* which states that the housing finance agency can request the Government to guarantee their bonds. The NHB provides funding to banks and housing finance companies (HFCs) by granting them loans, which are secured against specific pools of mortgages, and is also the prudential supervisor of HFCs. The housing finance agency funds its lending by issuing bonds and by borrowing from the Reserve Bank of India. The NHB is currently in the process of establishing the Mortgage Credit Guarantee Company, a joint venture between the NHB and several private and supranational entities, to provide mortgage insurance services in India. The NHB is also helping to develop India's MBS market by providing credit enhancements and trustee services for privately issued MBSs.

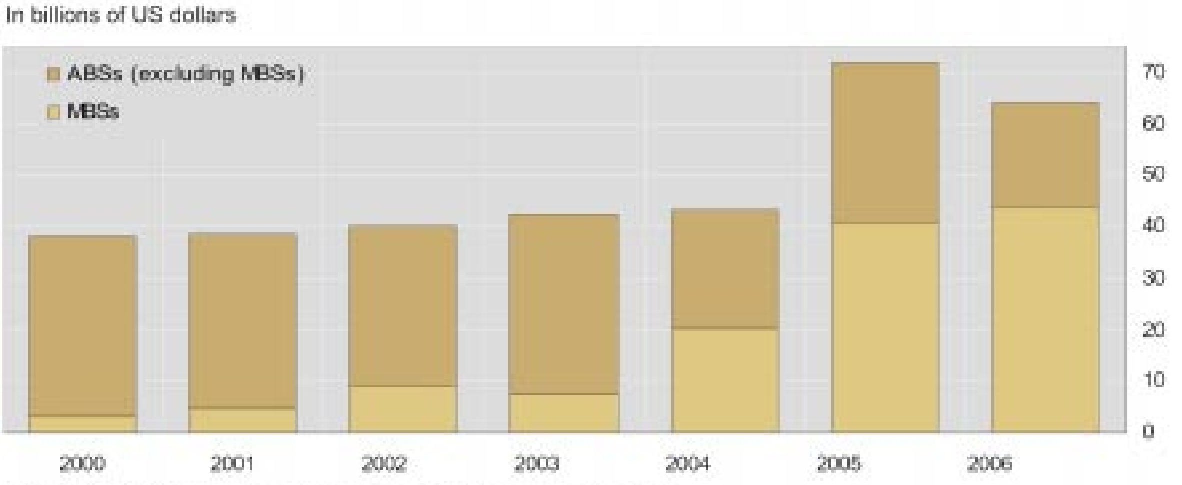
In Singapore, the Housing Development Board (HDB) was set up in 1960 and tasked with providing Singaporeans with good quality, affordable housing (HDB (2006)). The HDB is statutory board under the Ministry of National Development and is wholly government owned and has a formal government guarantee *(Housing and Development Act).* The HDB provides housing finance to low- and medium-income households at concessionary interest rates. Prior to 2003, it also provided housing finance at market rates to high income households. The housing finance agency funds its lending by borrowing from the Singaporean government and from banks, and by issuing bonds.

In Thailand, the Government Housing Bank (GHB) was established in 1953 to provide housing finance to Thai citizens, focusing on low and medium income households (GHB (2006)). The GHB is wholly owned by the Ministry of Finance and has a formal government guarante on its bonds via the *Government Housing Bank Act.* The GHB offers residential mortgages, standard deposit account services and assists households that are in financial distress to restructure their housing loans. Three-quarters of GHB's funding comes from deposits from government, private companies and households. The housing finance agency obtains the balance of its funding by issuing Government guaranteed bonds in the domestic market and offshore.

The contributions of Asian housing finance agencies

Many of the sample countries have recorded significant growth in the securitisation of mortgages over the past few years (Graph 1). Between 2000 and 2006, annual MBS issuance increased from $3 billion to $44 billion. This growth has been significantly faster than the growth in issuance of other ABSs (Gyntelberg and Remolona (2006) and Dalla (2006)). In several countries, the housing finance agencies have led this growth. In Hong Kong, India, Japan, Korea and Malaysia, the outstanding of housing agency MBSs has risen more quickly than privately issued MBSs (Table 1). In Hong Kong, India, Korea and Malaysia, housing finance agency MBSs account for the bulk of outstanding MBSs. The housing finance agencies' issuance of MBSs has served to increase investor familiarity with the product. The longer-term objective is to gradually create a benchmark yield curve for the pricing of private MBSs. In a few countries, housing finance agencies have also been among the largest non-government bond issuers, and their bond issuance has generally grown faster than the bond market as a whole.

Many of these housing finance agencies have also contributed to the development of their domestic MBS markets by working with governments to develop legislation which has removed legal, tax and regulatory impediments to securitisation. They have also improved the availability of good historical data on rates of non-payment and prepayment on housing loans, and have encouraged financial institutions to standardise their loan documentation. But despite the housing



[1] Hong Kong SAR, India, Japan, Korea , Malaysia, Singapore and Thailand.

Sources: Dealogic; HSBC; Moody's Investors Service; Standard & Poor's; Thomson Financial Securities Data; national rating agencies.

Graph 1

finance agencies' efforts, domestic MBS markets are still not fully developed in any of the countries we consider. In Singapore and Thailand, no housing loans have been securitised. In Hong Kong, India and Korea only 1% of housing loans are securitised, while in Japan and Malaysia this proportion is 5-6%. As a result, in all of the countries there is limited liquidity in secondary MBS markets.

Housing finance markets

In their respective housing finance markets, the agencies have broadened the range of loan types that are available to borrowers. In particular, several agencies have focused on introducing longer-term fixed rate loans. This has stimulated private lenders to lengthen the maturity of their loan contracts and to introduce more sophisticated products that combine features from fixed and floating rate loans. In Korea, the KHFC's provision of 30-year fixed rate mortgages likely contributed to banks and other financial institutions lengthening the maturity of their housing loans from 3 years to 20-30 **years.[[** When the KHFC was founded in March 2004, only 25% of housing loans had maturities of greater than 10 years. By December

Size of bond and MBS markets[1]

Amount outstanding; in billions of US dollars

	Date	MBS		Bonds				MBS + Bonds
		Housing agency	Private	Housing agency	Financial and corporate[2]	Government	Non-resident	Share of housing agency debt securities[3]
Hong Kong SAR	Dec 01	0.0	0.1	2.6	8.2	6.8	3.6	14.7
	Mar 06	0.6	0.0	4.0	10.8	8.8	4.0	19.0
India	Jun 02	0.1	n.a.	5.3	0.0	134.8	0.0	3.9
	Jun 05	0.2	n.a.	28.4	15.8	243.8	0.1	9.9
Japan	Mar 02	1.5	6.1	16.6	1,314.1	3,166.3	57.0	0.4
	Mar 06	27.2	60.4	33.1	1,211.9	5,501.8	57.1	0.9
Korea	Dec 01	1.5	n.a.	0.0	213.2	65.8	0.2	0.5
	Dec 05	8.3	n.a.	1.5	356.7	226.0	0.0	1.7
Malaysia	Dec 01	0.0	0.0	5.6	36.0	30.9	0.0	7.7
	Dec 05	1.5	0.0	6.4	47.4	50.4	0.2	7.5
Singapore	Mar 01	0.0	n.a.	1.6	7.5	21.7	1.5	5.1
	Mar 06	0.0	n.a.	2.7	2.6	35.5	2.9	6.7
Thailand	Dec 01	0.0	0.0	1.3	13.6	18.5	0.1	3.9
	Dec 05	0.0	0.0	1.8	23.6	48.8	0.2	2.4

[1] Excluding money market instruments. [2] Excluding housing agency bonds and MBSs as well as private MBSs. [3] As a percentage of total bonds and MBSs.

Sources: Citigroup; government housing agencies; BIS; authors' calculation. Table 1

2005, the proportion of loans with maturities of over 10 years had doubled to 50% (See KHFC (2006)]]. In Japan, the GHLC was the main provider of long-term fixed rate mortgages. And the JHF (GHLC's successor) uses securitisation to transfer the interest rate and prepayment risk of long-term fixed rate housing loans to capital markets, thereby allowing private financial institutions to offer these loans to households. Interestingly, the HKMC offered long-term fixed rate mortgages in 2001, but there was only limited demand for them as Hong Kong households have a preference for floating rate loans and the local banks did not market them aggressively.

Similar objectives but different approaches

Despite their common objectives, the approaches used by the housing finance agencies to achieve these objectives have differed considerably (Table 2). Four of the agencies - the GHLC, the GHB, the HDB and the KHFC - distribute their own loans to households, either directly or via banks and other loan originators. They thus compete fully in the housing finance market by offering loans to any household that satisfies their lending criteria. In addition to their direct lending, the GHLC offered mortgage insurance and purchased mortgages from other lenders for its MBS programme. (In April 2007, GHLC was replaced by the JHF, which focussed on securitising loans originated by private financial institutions rather than lending directly to households.) The KHFC provides guarantees on loans that are used to fund deposits for Chonsei leases.[[Chonsei is a lease contract, where rather than paying a periodic rent for the right to use real property, the tenant pays an up-front deposit for the use of the property with no requirement for periodic rent payments. Thus, the "rent" received by the landlord is the investment return on the Chonsei deposit. At the end of the contract, the landlord returns the tenant's Chonsei deposit (Zhu (2006)).]] The remaining agencies - the HKMC, Cagamas and the NHB - do not lend directly to households. The HKMC and Cagamas purchase already originated mortgages from banks and other lenders. The NHB lends directly to banks and finance companies, with the loans secured against specific pools of mortgages. The HKMC also has a large mortgage insurance division, and the NHB is in the process of establishing the Mortgage Credit Guarantee Company, a joint venture between the housing finance agency and several private and supranational entities, to provide mortgage insurance services.

Housing finance agencies' involvement in MBS markets also differs. Cagamas, the HKMC and the KHFC issue their own MBSs for which they guarantee interest and principal payments. Cagamas and the KHFC also hold the first-loss tranche of their own MBSs. These three agencies do not provide credit enhancements for privately issued MBSs. The GHLC issues its own MBSs, for which it guarantees interest and principal payments, and in addition provides credit enhancements for MBSs issued by others. The NHB provides credit enhancements and trustee services for privately issued MBSs, but does not issue its own MBSs. Neither the GHB and nor the HDB participates in MBS markets.

In recent years, the supply of housing finance provided by banks has increased in our sample countries. Over the same period, several of the agencies have broadened their activities. The HKMC has broadened its loan purchases to include other household debt and some commercial loans. It has also expanded its mortgage insurance programme and increased the maximum loan-to-value ratio on insured loans to 95%. Cagamas has also broadened its loan purchases. The NHB has started providing credit guarantees on private MBSs, and is establishing a mortgage insurance company.

In contrast to the other housing agencies, the HDB and the GHB have not started new business lines, although the HDB has made it easier for households to obtain loans. And in Japan, the GHLC has reduced its direct lending and has focused on buying mortgages from banks and issuing MBSs. Moreover, the replacement of the GHLC with the JHF in April 2007 largely reflects the government's desire to reduce its role in the Japanese economy.

Risk Management by housing finance agencies

Housing finance agencies manage a variety of risks associated with domestic housing loans. These can include credit, interest rate and prepayment risks. For securitised loans, loans for which the housing finance agencies have provided mortgage insurance and credit enhancements on private MBSs, the agencies are required to manage only credit risk.Q When private financial institutions securitise loans, the credit risk is often transferred to the ABS investor. In contrast, government housing agencies in Asia and in other parts of the world, typically retain the credit risk on securitised loans.]] For loans held on balance sheet, housing agencies are usually viewed as managing all financial risks, with the exception of Cagamas, which has recourse to the bank that sold it the loan if the borrower defaults, and hence only manages interest and prepayment risk.

The extent to which housing finance agencies manage the risks of domestic housing loans varies across Asia. The Singaporean and Thai housing finance agencies manage all of the financial risks on about 40% of housing loans in their respective

Housing agencies' business lines

	Agency	Issues MBSs	Private MBS enhancement	Own loan products	Purchases mortgages from banks	Mortgage insurance
Hong Kong SAR	HKMC	Yes	No	No	Yes	Yes
India	NHB	No[1]	Yes[2]	No	No[3]	No
Japan	GHLC	Yes	Yes[2]	Yes	Yes	Yes
Korea	KHFC	Yes	No	Yes	Yes[4]	No[5]
Malaysia	Cagamas	Yes	No	No	Yes	No
Singapore	HDB	No	No	Yes	No	No
Thailand	GHB	No	No	Yes	No	No

[1] Only issues MBSs on behalf of private financial institutions. [2] The GHLC provides credit wraps for private MBSs, NHB provides credit wraps and purchases part of the subordinated tranche. [3] The NHB lends directly to banks, with the loans secured against specific pools of mortgages [4] As of September 2006 the KHFC had not purchased loans from banks. [5] The KHFC provides a guarantee on deposits for Chonsei loans.

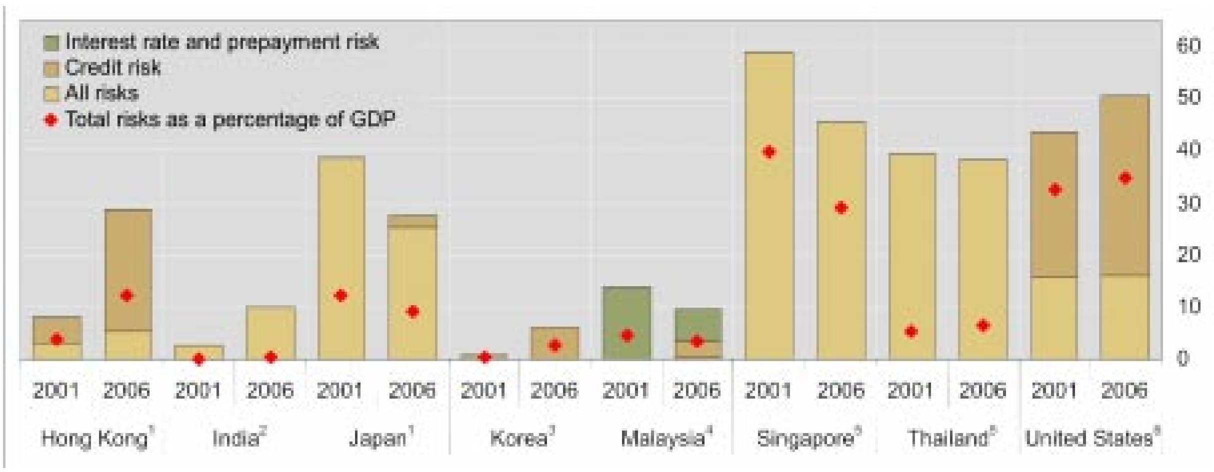
Sources: government housing agencies; National central banks; BIS. Table 2 countries (Graph 2). The Hong Kong and Japanese housing finance agencies manage some or all of the financial risks on roughly 25% of domestic housing loans. The remaining countries manage some or all of the financial risks on about 10% of housing loans. The housing finance agencies manage this financial risk by either hedging it with a third party, transferring it to bond and MBS investors or retaining it within their organisation.

The agencies in Hong Kong, India and Korea have all increased the share of credit risk that they manage. In Hong Kong, the HKMC's share of the credit risk on housing loans has quadrupled over the past five years, mainly due to the growth in the provision of mortgage insurance. In Korea, the KHFC's share of credit risks on housing loans has also risen strongly, reflecting the growth in its mortgage insurance and MBS programmes. In India, an increase in the NHB's direct lending to banks and other financial institutions has seen it managing additional risks. In contrast, the QHLC has scaled back its direct lending operations ahead of its restructuring, and consequently the share of the credit risk on Japanese housing loans it manages has fallen. The HDB's withdrawal from providing finance to high income households in 2003 has caused its share of the credit risk on Singaporean housing loans to fall. The HKMC is the only agency which actively hedges credit risk. Roughly half of the credit risk from its mortgage insurance operations have been reinsured (HKMC (2006)). All of the other housing finance agencies retain the credit risk within their organizations.

They manage, while the shares of interest rate risk managed by housing agencies in the other countries have declined. All of the housing agencies appear to hedge a significant share of the interest rate risks that they manage.

5. Government support

Formal government support for the housing finance agencies varies across our sample, from outright guarantees and full government ownership to no guarantee and limited government ownership (Table 3). In India, Korea, Singapore and Thailand the housing finance agencies have an explicit government guarantee and are wholly owned by their governments (either directly or via the central bank). In Korea, the law requires the government to cover losses in excess of the KHFC's capital reserves (see the Korea Housing Finance Corporation Act). The Singaporean government



is also required to cover the HDB's losses (Housing Development Board annual report). In India, the NHB can request the government to guarantee its bonds (National Housing Bank Act of 1987). At present, only some NHB bonds have an explicit government guarantee, but both types of bonds trade at similar prices, suggesting that market participants perceive the NHB as being backed by the Indian government. The Thai Government automatically guarantees GHB's bonds.

In Hong Kong and Japan, the housing finance agencies do not have a government guarantee but they are wholly owned by the government. It is clear that the HKMC enjoys a high level of government support, with the housing finance agency having access to additional callable equity capital and a revolving credit facility, as well as having various government officials and senior personnel of the Hong Kong Monetary Authority on its board. The extent of government support for the GHLC is a little more ambiguous. The Malaysian government owns only a fifth of Cagamas – the remainder being held by Malaysian and foreign banks – and the housing finance agency does not have a government guarantee.

Market perception of government support

Generally, there is a high level of agreement between the formal level of government support and the market perception thereof. The market perception of government support is reflected in credit rating and bond market prices, and these two indicators are broadly consistent for all countries.

For India, Korea, Singapore and Thailand, which have explicit guarantees, the market simply takes this as given. When rated, the housing finance agencies have the same credit ratings as their respective governments. The spreads on housing finance agency bonds and MBSs over government bonds are, according to market participants, a reflection of their smaller size, and the prepayment risk on MBSs (Table 4). Yields on housing finance agency debt and MBSs are well below yields on

Government support for housing agencies

Country	Government ownership		Government guarantee	
	Government	Central bank	Government view	Market view
Hong Kong SAR	100	--	No[1]	Yes
India	--	100	Yes	Yes
Japan	100	--	No	Yes
Korea	18	82	Yes	Yes
Malaysia	--	20	No	No
Singapore	100	--	Yes	Yes
Thailand	100	--	Yes	Yes

[1] No formal guarantee, but significant government support.

Sources: BIS; central banks; housing agencies; private market participants Table 3 other financial institutions' bonds.

In Japan and Hong Kong, where the agencies are wholly owned by the government but do not have a formal government guarantee, the market view is that they have strong implicit government guarantees. Both agencies have the same credit ratings as their respective governments, and upgrades and downgrades to the sovereign credit ratings have been reflected immediately in the housing finance agencies' ratings. In Japan, GHLC bonds trade at yields that are 10 basis points higher than yields on Japanese government bonds. The GHLC MBS spread of around 40 basis points is attributed to their prepayment risk. In Hong Kong, HKMC bonds and MBSs trade at yields that are 50 basis points higher than yields on Hong Kong government bonds. This probably reflects the smaller size and lower liquidity of the HKMC bonds.

In the case of Malaysia, the market view is that Cagamas does not have a government guarantee. This is consistent with the formal level of government support. The domestic rating agencies state that Cagamas's AAA credit rating reflects the high quality of its loan assets and the quality of its shareholders, which include several large Malaysian and international banks as well as Bank Negara Malaysia (Kokularupan (2005)). Consistent with the absence of government support, Cagamas bonds trade at yields that are roughly 60 basis points higher than yields on Malaysian government bonds – the largest spread differential of all the housing finance agencies. Reflecting their much higher liquidity, yields on Cagamas bonds are, however, lower than yields on bonds issued by other AAA-rated financial institutions. Cagamas MBSs trade at a spread of around 15 basis points above Cagamas bonds, despite having significant over-collateralisation and thus lower credit risk. A possible explanation for this is that these bonds are smaller in size and thus less liquid.

Yield spreads on MBS and agency bonds

Spreads on five-year sovereign bonds, in basis points[1]

	Agency bonds	Agency MBSs	Bonds issued by financials	MBSs issued by financials
Hong Kong SAR	49	50–55	55–60	…
India	50	70	102	70
Japan	11	39	27	55
Korea	15[2]	25	38	…
Malaysia	57	71	94	…
Singapore	47	-	66	-
Thailand	19[3]	-	96[3]	-

[1] Rounded average spreads for 2006. [2] Spread for MBS bond with bullet maturity. [3] Spreads on three-year sovereign bonds.

Sources: Asian Bond Online; Asian Development Bank; Barclays; Bloomberg; GHLC; HSBC; KIS Pricing; Mitsubishi UFJ Securities; R&I Japan; BIS.

Table 4

Quantifying the size and distribution of government support

To determine the impact of government sponsored housing finance agencies on primary housing finance markets in Asia, we collected detailed data on the operations of housing finance agencies and other financial institutions for seven Asian countries for the sample period January 2004 to December 2005. The data that were used in this working paper have been sourced from a broad range of organisations and where possible, have been crosschecked against a few sources to ensure their accuracy. But the relative immaturity of bond markets and housing finance markets in Asia means that the quality of the available data on the operations of the housing finance agencies varies. Hence the government subsidies reported in this paper should be seen as estimates only.

To estimate the size of government subsidies received by housing finance agencies and their distribution we consider the net present value of cash flows, following a methodology similar to that used in the study by the US Congressional Budget Office in 2004. We take as our starting point that housing finance agencies' subsidies are derived from two main sources: an explicit or implicit government guarantee, which allows them to issue bonds and MBSs at lower yields than other financial institutions; and direct government benefits such as grants, tax exemptions and favourable regulatory treatment. The US Congressional Budget Office (CBO) methodology was initially used to estimate the value the benefits the Government Sponsored Enterprises (GSEs) received from their special status as well as how much of this subsidy was passed on to borrowers

Following CBO (2004) we assign the subsidy impact on cash flows to the year in which they were earned and not the year that the subsidy was received. Cash flows received in future years are discounted using the appropriate government bond yield. Hence, the present value of gross subsidies (*S*) is calculated as:

$$S = \sum_{t=1}^{n} \frac{(r^{FI} - r^{HA})D^{HA} + (m^{FI} - m^{HA})MBS^{HA}}{(1+d_t)^t} + Ex$$

where *r* is the average yield on bonds and *m* is the average yield on mortgage-backed securities, with the superscript indicating whether the yield is for financial institutions (*FI*) or housing finance agencies (*HA*). The yields are based on the average maturity of bonds and MBSs issued in that year. D^{HA} and MBS^{HA} represent, respectively, the amount of bonds and mortgage-backed securities issued by housing finance agencies, and *Ex* is the value of grants, tax exemptions and other benefits received by housing finance agencies. The discount rate *d* is taken from the corresponding country's sovereign yield curve.
When considering how the subsidies are distributed among households, financial institutions and the housing finance agencies themselves, we assume that housing finance agencies pass on part of the subsidies to households via a lower mortgage rate. The present value of the subsidies received by homeowners (*SB*) can therefore be expressed as:

$$S^B = \sum_{t=1}^{n} \frac{(g^{FI} - g^{HA})M}{(1+d_t)^t}$$

where g^{FI} and g^{HA} are the average lending rates for mortgages withdrawn from financial institutions and housing finance agencies respectively, *M* is the amount of mortgages funded by the housing finance agencies, and *n* is the average life of the mortgage.

We further assume that financial institutions benefit from lower funding costs by selling mortgages to housing finance agencies or borrowing from them at attractive interest rates. The present value of the subsidies received by financial institutions (S^{FI}) is expressed as:

$$S^{FI} = \sum_{t=1}^{n} \frac{(r^{FI} - b^{HA})B}{(1+d_t)^t}$$

where *b* is the rate at which housing finance agencies purchase mortgages from (or lend to) financial institutions, *B* is the amount of funding provided by the housing finance agency, and *n* is the average maturity of this funding. Finally, it is assumed that the housing finance agencies retain the remaining portion of the subsidies (S^{HA}) that are not captured by homeowners and financial institutions. Hence,

$$S^{HA} = S - S^{B} - S^{FI}$$

While the basic approach of this paper is similar to those used in the United States studies, the methodology is adjusted to account for the different structures of Asian and United States mortgage markets. In the United States, the residential mortgage market is divided into two parts – conforming loans (loans that can be purchased by the United States housing finance agencies) and non-conforming loans. By comparing the interest rates that are charged on conforming residential mortgages with the interest rates that are charged on similarly risky non-conforming loans (typically “jumbo” loans), researchers are able to estimate the proportion of the government subsidy that is passed onto United States households. But several of the mortgage markets in our sample of Asian countries are different from those in the United States. In Hong Kong, India and Malaysia, the mortgage market is not segmented. Banks and other financial institutions provide all of the housing loans in these countries. The housing finance agencies provide liquidity to the banking system, either by purchasing housing loans from financial institutions (Hong Kong and Malaysia), or by making direct loans to them (India).

In Singapore, the HDB only provides housing loans to low- and medium-income households, with private banks and finance companies lending to high-income households. In Japan and Korea, the housing finance agencies compete reasonably directly with the private banks – the housing agencies offer 30-35 year fixed-rate loans while the private banks offer medium term (10-20 year) variable-rate loans. Only in Thailand are the housing loans offered by the housing finance agency and private banks directly comparable – they both offer 15-20 year variable rate loans.

The different market structures mean that the method used to estimate the size of the interest rate saving that is received by households varies across the seven countries. In Japan, Korea, Singapore and Thailand we have used the spread between the housing finance agencies’ mortgage rates and banks and other financial institutions’ mortgage rates.

Where necessary, we have used fixed-floating interest rate swaps (of the appropriate maturity) to convert floating–rate housing loans into fixed-rate housing loans. This calculation implicitly assumes that housing agency and private lenders’ housing loans are equally risky. This is a reasonable assumption for Japan, Korea and Thailand because the housing finance agency and private lenders compete for the same borrowers and have similar lending standards, but it maybe less valid for Singapore, where the housing finance agency only lends to low- and medium-income households. In Hong Kong, India and Malaysia, where the mortgage market is not segmented, we have relied on discussions with housing finance agencies, central banks and market participants to evaluate the housing finance agencies' impact on mortgage rates.

The housing finance agency bond spreads are spreads at issuance where available. However, data limitations mean that we have had to rely on secondary market spreads in a number of cases. To account for the resulting uncertainty regarding bond spreads at issuance, we have calculated the size of the support for a range of yield spreads. We have added and subtracted 10 basis points relative to our central estimates for all countries except India, for which we have added and subtracted 20 basis points. The amount of debt issued and its maturity are based on actual issuance data. The private financial institution bond spreads are based on entities of comparable credit quality to the housing finance agencies on a standalone basis, ie without government support. These bond spreads are sourced from the secondary bond market.

Findings

Size of the government subsidies

For most of the selected Asian countries the level of government support given to housing finance agencies is small in absolute terms and relative to GDP. In all countries except Singapore, the level of government support given to housing agencies is below 0.1% of GDP (Table 5). In Singapore, the subsidy is roughly 0.5% of GDP. The variation in the size of the estimated subsidies reflects the relative importance of the different business lines and the nature of government support.

Estimated size of government subsidies to housing agencies in 2005

Country	Estimated range for subsidy[1]	Main subsidy channel
Hong Kong SAR	0.000–0.003	Bonds/loans
India	0.006–0.009	Bonds/loans
Japan	0.002–0.007	Bonds
Korea	0.015–0.025	MBSs
Malaysia	0.000	-
Singapore	0.459–0.498	Subsidy/loans
Thailand	0.038–0.081	Bonds/loans
Memo: United States[2]	*0.210*	*MBSs and bonds*

[1] As a percentage of GDP. [2] Data are for 2003.

Sources: Congressional Budget Office; IMF; national central banks, housing agencies; BIS. Table 5

By comparison, the CBO (2004) estimate that the US housing finance agencies received government subsidies equivalent to 0.2% of GDP. When comparing the US estimates with those found for the Asian agencies, it is however important to keep in mind that today the US housing agencies are publicly traded companies with dispersed public shareholdings, while the Asian housing finance agencies are government agencies.

Who benefits?

The beneficiaries of the government subsidy differ across countries. In Hong Kong, Korea, Singapore and Thailand, households receive the bulk of the subsidy, while in India, financial institutions receive most of the benefits (Table 6). In Japan, the situation is more complex with financial institutions receiving most of the subsidy if one focuses on new lending, and the GHLC receiving more than half of the subsidy if existing mortgages are included. In almost all countries, the housing finance agency retains very little of the subsidy.

In Korea, almost the entire subsidy is passed on to households through lower interest rates on their mortgages. In addition to providing households with lower cost mortgages, the KHFC has been able to broaden the range of mortgage types that are available in Korea. The KHFC and the financial institutions receive very little of the subsidy. Similarly, in Singapore, all of the government support flows through to households through lower mortgage interest rates. The main difference between the two countries is that in Singapore the housing finance agency's concessionary interest rates are only available to low and medium income households, whereas in Korea the housing agency can lend to any household. In Thailand, much of the housing finance agency's subsidy is passed on to households through lower interest rates on their mortgages, with low-income households benefiting most. GHB's depositors also benefit from the government subsidy through higher deposit rates.

Beneficiaries from government support to housing finance agencies	
Hong Kong SAR	Households
India	Financial institutions
Japan	Financial institutions, Households
Korea	Households
Malaysia	-
Singapore	Households
Thailand	Households
Memo: United States	*Households, housing agencies*

Source: See Table 5. Table 6

In Japan, the housing finance agency retains over half the estimated subsidy if both new and existing mortgages are included. This in part reflects losses stemming from lending in the 1980s and 1990s (Appendix 3). For new lending, financial institutions and the GHLC each receive about 45% of the subsidy, with households receiving the remaining 10%. However, the fact that households were allowed to refinance their loans with little or no financial penalty during the mid-1990s when interest rates were falling suggests that they benefited significantly from the government support of the GHLC.

Due to the structure of the housing finance markets and the available data it is not possible to estimate the distribution of the subsidy for Hong Kong and India. In particular, we cannot differentiate between mortgages that are financed by the housing finance agencies and mortgages that are financed by other financial institutions, and hence cannot determine how much of the estimated subsidy is distributed to households. Nonetheless, discussions with market participants in each of the countries have provided some indication of the distribution of the subsidy. In India, it appears that the housing finance agency transfers most of the estimated subsidy to banks and other financial institutions by providing them with low cost loans. In Hong Kong, HKMC's mortgage insurance operations may have broadened the range of households that can obtain housing finance.

Financial market development

In several of the countries considered, the housing finance agencies appear to have helped develop domestic MBS and housing finance markets. In the MBS market, they have worked with governments to eliminate structural impediments to securitisation and have initiated more systematic issuance of MBSs. In several of the primary housing finance markets, they have broadened the range of loan types available to borrowers by introducing longer-term fixed rate loans. In some markets, they have also provided liquidity to the banking system – either by purchasing housing loans from financial institutions, or by making direct loans to them – though their capacity to provide stable funding for loan originators over the whole economic cycle has not yet been tested. Housing finance agencies also appear to have helped improve household access to loans in some countries.

Broadening of mandates and financial stability

From a financial stability perspective there are aspects of some of the Asian housing finance agencies' operations that may require close monitoring if the trends seen in recent years continue. One aspect is the recent broadening of Asian housing finance agencies' mandates as they try to remain relevant in an environment where banks have increased their supply of housing finance. This has arguably resulted in housing finance agencies holding more risks, particularly credit risk in Hong Kong, India and Korea. As housing finance agencies increase their activities, their risk management requirements will also grow and thus become more challenging. In Japan, Singapore and Thailand, the housing finance agencies' shares of the financial risks associated with housing loans have fallen over recent years, but they are still significant.

Conclusion

In Asia, government-supported housing finance agencies have played a constructive role in the development of domestic residential mortgage and bond markets. And in most countries, they have not required large government subsidies to fulfil this mandate. In all countries except Singapore, the level of government support given to housing finance agencies is below 0.1% of GDP. The housing finance agencies have also managed to transfer most of the benefit of their government support to either households or financial institutions. Agencies that participate directly in primary housing finance markets appear to have been most successful in passing on their government support to households.

However, many of the housing finance agencies have a large or rapidly growing presence in their domestic housing markets which could give rise to policy concerns going forward. One risk is that the government subsidised housing agencies will distort competition, crowd out private lenders and mortgage insurers, and ultimately hinder market development. This occurred in Japan, and was one of the reasons why the GHLC's role was refocused away from direct lending towards supporting securitisation of mortgages originated by private lenders. Also, in many countries it has proven less easy for governments to scale back their involvement in markets than to introduce it (see Higgs (1985)). Interestingly, very few of the government-owned Asian housing agencies have explicitly outlined exit strategies from their respective housing finance markets.

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National Urban Housing and Habitat Policy - 2007

I. The Need for Policy

Urbanization and Development

1.1 "Urban" in India is defined as a human settlement with a minimum population of 5000 persons, with 75% of the male working population engaged in non-agricultural activities and a population density of at least 400 persons per sq. km. Further, all statutory towns having a Municipal Corporation, Municipal Council or Nagar Panchayat as well as a Cantonment Board are classified as "urban."

1.2 India's urban population in 2001 was 286.1 million, which was 27.8% of the total population. *Over the previous five decades, annual rates of growth of urban population ranged between 2.7 to 3.8%*. During the last decade of 1991-2001, urban population of India increased at an annual growth rate of 2.7%, which was 0.4% lower than that registered during the preceding decade.

1.3 The process of urbanization in India is marked by increasing concentration in comparatively larger cities. In 2001, 68.7% of the total urban population was living in Class I cities (defined as cities having a population of over 100,000). The shares of medium and small towns in the total population stood at 21.9% and 9.4% respectively.

1.4 The spotlight is focused on the mismatch between demand and supply of housing units. 99% of the housing shortage of 24.7 million at the end of the 10th Plan pertains to the Economically Weaker Sections (EWS) and Low Income Groups (LIG) sectors. Given the fact that 26.7% of the total poor in the country live in urban areas, the issue of affordability assumes critical significance. In terms of numbers, 26.7% of the total poor implies 80.7 million persons or about one-forth of the country's total urban population.

1.5 Further, the National Sample Survey Organisation (NSSO) 61st Round reports that the number of urban poor has risen by 4.4 million persons, between 1993-94 to 2004-05. It is, therefore, of vital importance that a new National Urban Housing and Habitat Policy carefully analyses ways and means of providing the 'Affordable Housing to All' with special emphasis on the EWS and LIG sectors.

1.6 The number and proportion of cities with a population of one million or more has grown significantly in recent decades. From 12 in 1981 with 26.8% share of the total urban population, the number of million plus cities has increased to 35 in 2001 with 37% share of the total urban population.

1.7 The general trend towards urbanization shows considerable disparity amongst various States/Union Territories (UTs) of India. Whereas States such as Goa, Gujarat, Maharashtra, Punjab and Tamil Nadu have attained over 35% urbanization (Census:2001) and are continuing to register growth rates higher than the annual national average; States like Himachal Pradesh (9.80%), Bihar (10.46%), Orissa (14.99%) and Uttar Pradesh (20.78%) have displayed low rates of urbanization.

Rural To Urban Shift of Labour

1.8 The growth of the Indian workforce is also characterized by an increasing level of urbanization. At the onset of the 21st century (2001), 32% of the total workforce resided in urban areas. According to the 2001 Census, 29% of the urban workforce falls in the category of "*main workers*" and the balance in the category of "*marginal workers*." The male-female composition of the urban workforce is structured in favour of male workers (the male-female ratio being 84:16 in 2001) although there has been some improvement in the volume of female employment. *Further, it is of critical significance that 79% of the new jobs totaling 19.3 million between 1991-2001 were generated in urban areas and only 5 million jobs were generated in rural areas.*

1.9 It is important to highlight the fact that the informal sector in urban areas is growing exponentially. In the decade 1991-2001, workers classified as "marginal workers" registered an increase of 360% as compared to an increase of only 23% for workers classified as "main workers." As a consequence, the ratio of marginal workers to total workers increased from 2.2% in 1991 to 7.9% in 2001. Further, the proportion of female workers to total workers rose from 14.3% in 1991 to 16% in 2001. In a nutshell, the 1991-2001 decade has witnessed strong trends towards casualization and feminization of the urban workforce. Further, wage employment is being progressively replaced by sub-contracting.

Balanced Regional Development

1.10 As India's labour force witnesses a rural to urban shift, it is of critical importance that the rural and urban areas develop in a symbiotic manner. The way to bring about such a symbiotic development between rural and urban areas is by adopting "a Regional Planning approach." The objective of such an approach is to develop a symbiotic rural-urban continuum, which is ecologically sustainable. The Town & Country Planning Acts of some States provide an ideal basis for Regional Planning.

1.11 There is also a need to develop *a special focus on the eight States of the North-Eastern*

Regional Council due to a lesser level of socio-economic development and on account of the highly sensitive ecology of the region.

New Integrated Townships and Green-Field Development

1.12 In view of the fact that 50% of India's population is forecasted to be living in urban areas by 2041, it is necessary to develop new integrated townships. These green-field townships should generally be located on comparatively degraded land excluding prime agricultural areas growing more than one crop with the help of assured irrigation. These green-field townships should be located at a reasonable distance from medium or large existing towns.

1.13 Further, it is also important to develop mass rapid transport corridors between existing medium and large towns and new green-field towns so that the relationship between industry and commerce is developed to an optimum level.

Role of Housing

1.14 As per a Central Statistical Organisation (CSO) estimate, the Housing Sector contributed 4.5% to India's Gross Domestic Product (GDP) in 2003-04 at current prices. The contribution of housing *in urban areas* to the GDP in 2003-04 was 3.13%. Further, the spotlight is focused on the fact that 16% of the Indian work force is engaged in Construction and Transport Sectors. It is estimated that overall employment generation in the economy on account of additional investment in the Construction/Housing Sectors is eight times the direct employment (IIM Ahmedabad : 2005). In view of the substantial use of cement, steel, marble/ceramic tiles, electrical wiring, PVC pipes and various types of fittings; construction activity has a multiplier effect on industrial demand for these items.

1.15 At the advent of the 21st Century (2001), the housing stock in India stood at 50.95 million for 55.8 million urban households. *Significant segments of this housing stock was characterized by congestion and obsolescence.* Congestion is particularly acute in inner city slums and peripheral slums. *According to the Census 2001, 61.82 million persons or 23.1% of the urban population resides in slums*. The quality of housing stock in slums is extremely poor. An important reason for this is insecurity of tenure. Slums are also severely deficient in basic services such as potable water, sanitation, sewerage, storm water drainage and solid waste disposal.

1.16 Given the degraded habitat in which slum dwellers live and the frequent episodes of illness characterizing slum families, *it is of vital importance that special attention is paid to urban health and hygiene* on the one hand and social and preventive medicine on the other hand. In order to improve the quality of life in urban areas, *it is of critical significance that the housing stock is improved through urban renewal, in situ slum improvement and development of new housing stock in existing cities as well as new townships.*

Further, the enhancement of housing stock must be accompanied with high quality provision of basic services. It is a well established fact that *safe, hygienic and spacious provisioning of housing duly buttressed with adequate basic services and a congenial habitat promotes significant improvement in productivity of workers.*

Housing Needs

1.17 The magnitude of housing shortage was estimated by a Technical Group in the context of formulation of the 11th Five Year Plan. The Technical Group estimated the housing shortage at the end of the 10th Plan to be around 24.7 million for 67.4 million households. The Group further estimated that 99% of this shortage pertains to EWS & LIG sectors. During the 11th Plan, the Group estimated that the total housing requirement (including backlog) will be to the tune of 26.53 million units for 75.01 million households.

1.18 Whereas more than 23% of the urban population resides in slum (Census:2001), a much higher proportion of the urban population of metropolitan cities lives in slums; it is estimated that 55% of the population of Mumbai lives in slums. It is of critical importance that the strategy of in-situ slum upgradation is adopted for preponderant proportion of the slum dwellers, since they provide valuable services to residents living close to their own dwelling places.

1.19 The Working Group on Urban Housing pertaining to the 11th Plan made different assumptions on unit cost of construction of houses in million plus cities and other urban areas for estimating the investment required for overcoming the housing shortage. The total estimated investment for meeting the housing requirement upto 2012 was estimated to be of the order of Rs.3,61,318.10 crores consisting of Rs.1,47,195 crores for mitigating housing shortage at the beginning of 11th Plan and Rs.2,14,123.10 crores for new additions to be made during the 11th Plan period (this includes construction of pucca houses & upgradation of semi-pucca and kutcha housing units).

Magnitude of Poverty

1.20 Non-affordability of housing by economically weaker sections of society and low income families in urban areas is directly linked with the magnitude of urban poverty. Poverty in India has declined from 320.3 million in 1993- 94 to 301.7 million in 2004-05. While there has been a decline of 18 million persons in the total numbers of the poor in India, *the NSSO reports that the number of the urban poor has risen by 4.4 million persons during the same period*. One fourth of the country's total urban population, numbering 80.7 million persons is below the poverty line. The urban poor constitute 26.7% of the total poor in the country. *The fact that the number of urban poor has risen is in stark contrast with rural poverty, where* both the total number of rural poor and its incidence vis-à-vis the rural population has fallen.

1.21 The urban poor have limited access to basic services. According to the 2001 census, there is a 9% deficiency in drinking water, 26% in toilets and 23% in drainage. It is quite understandable that most of this shortage pertains to Slums.

Development of Sustainable Habitat

1.22 Development of sustainable habitat is closely related to the adoption of '*the Regional Planning approach*' while preparing Master Plans of towns/ cities, District Plans and Regional/Sub-Regional Plans. It involves maintenance of the ecological balance in terms of a symbiotic perspective on rural and urban development while developing urban extensions of existing towns as well as new integrated townships. Promotion of sustainable habitat is closely linked with reserving a significant proportion of the total Master Plan area as '*green lungs of the city*' (e.g. Master Plan for Delhi 2021 provides 20% of green areas), protecting water bodies with special emphasis on the flood plains of our rivers and developing green belts around our cities. It will be desirable to pursue a goal of 20-25% recreational land use area (excluding water bodies) which has been prescribed for Metro-cities by the Urban Development Plan Formulation and Implementation Guidelines (UDPFI) in order to enhance the sustainability of human settlements. Recreational land use refers to parks, playfields and other open space such as specified park, amusement park, maidan, a multipurpose open space, botanical garden, zoological parks, traffic parks, etc. It is also necessary to estimate the Gross Geographic Product (GGP) of a given sub-region and endeavour to enhance it while developing new urban settlements. The new Habitat Policy recognizes the sustainability limits of existing urban settlements. It also seeks to emphasize the mutual inter-dependence between towns and villages.

1.23 The new Habitat Policy reaffirms the *importance of small and medium urban agglomerates/ towns which have potential for future urban growth*. The new Policy seeks to accelerate the development of such small and medium towns which can serve as *generators of economic momentum* while at the same time striving to reduce the rate of migration to existing large cities.

Policies & Programmes

1.24 In 1991, India adopted a more 'inclusive' view of economic development by emphasizing that it must integrate with the global economy. In pursuance of this, it reduced custom duties and welcomed Foreign Direct Investment (FDI) in several sectors of the economy. The National Housing Policy, 1994 was a product of this economic point of view. The 1994 Policy in its section on "Goals" sought to increase supply of land serviced by basic minimum services with a view to promoting a healthy environment. The National Housing & Habitat Policy, 1998 laid greater emphasis on the aspect of "Habitat" as a supplementary focus to housing. The emphasis on "providing" housing continued in this Policy with emphasis on both quality and cost-effectiveness especially to vulnerable sections of society. The New Urban Housing and Habitat Policy seeks to enhance the spotlight on 'habitat' with a 'Regional Planning approach' as well as further deepen the role of Government as a 'facilitator' and 'regulator.' Moreover, the new Policy lays emphasis on earmarking of land for the EWS/ LIG groups in new housing projects. The new Urban Housing & Habitat Policy lays emphasis on Government retaining its role in social housing so that affordable housing is made available to EWS and LIG of the population as they lack affordability and are hopelessly out priced in urban land markets. 1.25 (a) The various policies adopted by the Central Government, from time to time, were accompanied by initiation of various programmes and schemes.

The National Slum Development Programme (NSDP) had provision for adequate and satisfactory water supply, sanitation, housing, solid waste management, primary and non-formal education. The scheme provided additional central assistance to States to supplement the resources of the State Government for provision of basic infrastructure and services in slum areas. The Swarna Jayanti Shahari Rozgar Yojana (SJSRY) was designed to provide gainful employment to the urban poor by encouraging setting up of self-employment ventures and provision of wage employment opportunities for families below poverty line in urban areas. The Two Million Housing Programme (TMHP) was launched with the objective of 'housing for all' with particular emphasis on the needs of economically weaker sections and low income group categories. The Valmiki Ambedkar Awas Yojana (VAMBAY) aimed at providing subsidies for construction of housing and sanitation for urban slum dwellers living below poverty line in different towns/cities all over the country.

1.25 (b) The above mentioned policies and programmes have yielded fairly positive results in the area of housing and habitat. Some increase has been noticed in the supply of serviced land, shelter and related infrastructure. For example, in the first four years of the 10th Plan period, financial assistance was provided for construction of 4,42,369 dwelling units under VAMBAY scheme. Similarly, total number of beneficiaries under NSDP and SJSRY were 45.87 million and 31.77 million respectively during the same period. The period 1991 to 2001 witnessed a net addition of 19.52 million dwelling units in the urban housing stock (Census: 2001) involving average annual construction of 1.95 million houses. The share of ownership housing in urban areas has increased from 63% in 1991 to 67% in 2001 (Census: 2001). It is important to note that households having one room accommodation declined significantly in urban areas from 39.55 per cent to 35.1 per cent during the period 1991 to 2001. This is a result of upward mobility in accommodation indicating a robust economy and accelerated supply of improved housing stock.

Jawaharlal Nehru National Urban Renewal Mission

1.26 The recently launched Jawaharlal Nehru National Urban Renewal Mission (JNNURM) supports 63 cities (7 mega cities, 28 metro cities and 28 capital cities and towns of historical/ religious importance) across the country in terms of perspective plans called City Development Plans (CDPs) for specifying infrastructure gaps relating to water, sanitation, sewerage, drainage and roads on the one hand and deficiencies in housing and basic services on the other hand. On the basis of City Development Plans, the JNNURM seeks to fill up the gaps in infrastructure and deficiencies in housing and basic services through appropriate investments. The Mission approach is reform based with releases being made subject to specified reform agenda being implemented. The Mission is reforms driven, fast track planned development of identified cities with focus on efficiency in urban infrastructure, services delivery mechanism, community participation and accountability of urban local bodies (ULBs) to citizens. JNNURM seeks to encourage private sector participation with the Government providing viability gap funding through the Mission for large projects where the open tendering process shows specific shortage in economic viability. In addition to these 63 cities, urban infrastructure and slums are also being addressed in the remaining Non-Mission cities through the Urban Infrastructure Development Scheme for Small and Medium Towns (UIDSSMT) and Integrated Housing and Slum Development Programme (IHSDP).

1.27 The Basic Services for the Urban Poor (BSUP) seeks to provide a garland of 7 entitlements/ services – security of tenure, affordable housing, water, sanitation, health, education and social security – in low income settlements in the 63 Mission Cities. The Integrated Housing and Slum Development Programme (IHSDP) seeks to provide the aforementioned garland of 7 entitlements/services in towns/cities other than Mission cities.

Focus Areas

1.28 The National Urban Housing and Habitat Policy, 2007 seeks to use the perspective of Regional Planning as brought out in the 74th Amendment Act in terms of preparation of District Plans by District Planning Committees (DPCs) and Metropolitan Plans by Metropolitan Planning Committees (MPCs) as a vital determinant of systematic urban planning. The policy seeks to promote a symbiotic development of rural and urban areas. In this regard, the policy seeks to ensure refinement of Town and Country Planning Acts (wherever required) and their effective implementation.

1.29 The core focus of this Policy is provision of “Affordable Housing For All” with special emphasis on vulnerable sections of society such as Scheduled Castes/Scheduled Tribes, Backward Classes, Minorities and the urban poor.

1.30 This Policy takes note of the substantive gap between demand and supply both for housing and basic services. This Policy seeks to assist the poorest of poor who cannot afford to pay the entire price of a house by providing them access to reasonably good housing on rental and ownership basis with suitable subsidization. The Policy seeks to enhance the supply of houses especially for the disadvantaged, duly supplemented by basic services.

1.31 This Policy seeks to develop innovative financial instruments like development of Mortgage Backed Securitization Market (RMBS) and Secondary Mortgage Market. It also seeks to attract Foreign Direct Investment (FDI) in areas like integrated development of housing and new township development.

1.32 This Policy draws from innovations in the area of housing and infrastructure in India and elsewhere. It also gives a menu of actionable points which inter-alia includes Public-Private-Partnerships, conservation of natural resources and formulation of regulations & bye-laws that are environmentfriendly, investment-friendly and revenue-generating.

1.33 This Policy seeks to emphasize appropriate fiscal concessions for housing and infrastructure.

1.34 This Policy seeks to accelerate construction activities for giving a boost to employment for vulnerable sections of society.

1.35 This Policy aims to promote development of cost-effective, quality approved building materials and technologies with a view to bringing down the cost of EWS/LIG houses.

1.36 This Policy aims to complement poverty alleviation and employment generation programmes for achieving the overall objective of "Affordable Housing For All" with sustainable development.

1.37 This Policy dwells upon the roles of various stakeholders and specific action required pertaining to Land, Finance, Legal and Regulatory Reforms as well as Technology Support and Transfer.

1.38 This Policy seeks to accelerate the development of small and medium towns which can serve as a generators of economic momentum with the objective of reducing the rate of migration to large cities.

1.39 The Policy lays special emphasis on the development of North-Eastern States on account of the fragile ecology of the North-Eastern Region as well as the need to accelerate the pace of its socio-economic progress. In this manner, the Policy seeks to improve accessibility to the North-Eastern Region.

II. The Aims

The National Urban and Habitat Policy aims at :

Urban Planning

i) Encouraging State Governments, Urban Local Bodies, Development Authorities to periodically update their Master Plans and Zoning Plans which should, interalia adequately provide for housing and basic services for the urban poor.

ii) Promoting balanced urban-rural planning by following the Regional Planning Approach, take the whole State/UT as a region, under the Town & Country Planning Acts in the States.

iii) Planning of Mass Rapid Transit Systems (MRTS) at the city Metropolitan Planning Area and Sub-region levels.

Affordable Housing

iv) Accelerating the pace of development of housing and related infrastructure.

v) Creating adequate housing stock both on rental and ownership basis with special emphasis on improving the affordability of the vulnerable and economically weaker sections of society through appropriate capital or interest subsidies.

vi) Using technology for modernizing the housing sector for enhancing energy and cost efficiency, productivity and quality. Technology would be harnessed to meet the housing needs of the poor. The concept of ‘green’ and ‘intelligent’ buildings would be put in place on the ground. Technological advances would be disseminated for preventing and mitigating the effects of natural disasters on buildings, e.g., in case of earthquakes, floods, cyclones, etc.

Increase flow of Funds

vii) Promoting larger flow of funds from governmental and private sources for fulfilling housing and infrastructure needs by designing innovative financial instruments.

viii) Designing suitable fiscal concessions in congruence with the Housing and Habitat Policy with appropriate monitoring mechanism to ensure that the concessions are correctly targeted and utilized.

ix) Removing legal, financial and administrative barriers for facilitating access to tenure, land, finance and technology.

x) Shifting to a demand driven approach and from subsidy based housing schemes to cost recovery-cum-subsidy schemes for housing through a proactive financial policy including micro-finance and related self-help group programmes.

Spatial Incentives

xi) Innovative spatial incentives like relaxation of Floor Area Ratio (FAR) for ensuring that 20-25 % of the FAR are reserved for EWS / LIG and issuance of Transferable Development Rights(TDR) for clearance of transport bottlenecks in the inner-city areas and availability of additional FAR in Outer Zones will be promoted with a view to meeting the housing shortage amongst EWS/LIG.

xii) Careful review of authorized Floor Area Ratio (FAR) in line with international practices for allowing more efficient use of scarce urban land by construction of high rise buildings.

Increase Supply of Land

xiii) Facilitating accessibility to serviced land and housing with focus on economically weaker sections and low income group categories.

xiv) Suitable restructuring for enabling both institutions at the State and Centre levels as well as the private sector for increasing supply of land.

Special Provision for SC/ST/OBC/Minorities/Disabled

xv) Special efforts for catering to the needs of Scheduled Castes, Scheduled Tribes, Other Backward Classes, Minorities, Disabled persons, slum dwellers, street vendors other informal sector workers and other vulnerable sections of the society in relation to housing and access to basic services.

Special Provision for Women

xvi) Involving women at all levels of decision making for ensuring their participation in formulation and implementation of housing policies and programmes.

xvii) Addressing the special needs of women headed households, single women, working women and women in difficult circumstances in relation to housing serviced by basic amenities.

Employment Generation

xviii) Upgradation of construction skills and accelerated development of housing and infrastructure sectors for giving an impetus to employment generation.

Public-Private Partnerships

xix) Forging strong partnerships between public, private and cooperative sectors for accelerated growth in the Housing Sector and sustainable development of habitat.

Management Information System

xx) Establishing a Management Information System (MIS) in the Housing Sector for strengthening monitoring of building activities in the country.

Healthy Environment

xxi) Developing cities/towns in a manner which promotes a healthy environment, encouraging use of renewable energy resources and ensuring effective solid waste management in collaboration with persons involved in recycling activities.

xxii) Protecting our cultural heritage and architecture as well as promoting traditional skills with suitable adaptation to modern technologies.

III. Role of Government, Urban Local Bodies and Other Agencies

3. It will be the endeavour of the Central Government in collaboration with governments in States/UTs, Urban Local Bodies and other agencies to implement the aims of the National Urban Housing and Habitat Policy, 2007 through action-oriented initiatives at all levels of Government. Towards this end, Annual Action Plans will also be prepared at various levels.

3.1 The Central Government would (in consultation with State Governments)

Create a Supportive Environment

(i) Act as a ‘facilitator’ and ‘enabler’ with significant actionable steps being taken by State Governments, Urban Local Bodies, Parastatals and Private & Co-operative Sector and Non-Government Organisations.

(ii) Advise and guide respective State Governments to adopt and implement the National Urban Housing & Habitat Policy, 2007 in a time bound manner.

(iii) Promote balanced regional development in the country by suitably decentralizing functions relating to development of the Housing Sector and promotion of an ecologically sound habitat.

(iv) Act as an enabler and facilitator by developing suitable financial instruments for promotion of housing for the EWS and LIG groups serviced by basic amenities.

(v) Promote Action Plans for creation of adequate infrastructure facilities relating to water, drainage, sanitation, sewerage, power supply and transport connectivity.

(vi) Develop economically viable housing promotion models and standards for provision of physical, social and economic services.

Legal & Regulatory Framework

vii) Promote systematic planning at the City, Metropolitan Area, District and Regional levels.

viii) Encourage adoption of critical urban reforms relating to municipal laws, building bye-laws, simplification of legal and procedural frameworks, property title verification system and allied areas.

ix) Promote an innovative policy for safeguarding the rights of street vendors with appropriate restrictions in the public interest.

x) Promote improvements for elimination of ambiguities in transaction of conveyance deeds, lease deeds, mortgages, gifts, partition deeds and allied property-related documents.

xi) Promote the observance of the National Building Code (NBC), 2005.

Housing Finance

xii) Devise macro-economic policies for enabling accelerated flow of resources to the housing and infrastructure sector.

xiii) Develop suitable fiscal concessions in collaboration with the Ministry of Finance for promotion of housing and urban infrastructure with special focus on EWS/LIG beneficiaries combined with a monitoring mechanism for effective targeting. Further, facilitate viability gap funding of integrated slum development programmes with the consent of Planning Commission and Ministry of Finance.

xiv) Encourage Foreign Direct Investment in the urban housing and infrastructure sectors.

xv) Develop convergence between urban sector initiatives and financial sector reforms.

Supply & Management of Land

xvi) Develop a National Land Policy for optimal use of available resources including enhanced supply of serviced land for sustainable development.

Environment and Ecology

xvii) Promote appropriate ecological standards for protecting a healthy environment and providing a better quality of life in human settlements. Special attention will be paid to housing in coastal areas in order to promote fragile ecology.

Further, adequate mangrove and allied plantations will be promoted in coastal areas especially those which are in high disaster-prone zones to avoid loss to life from natural disaster.

Management Information System

xviii) Develop a nation-wide Management Information System (MIS) relating to housing and allied infrastructure for well informed decision making.

Research & Development

xix) Promote Research & Development (R&D) relating to alternate building materials and technologies as well as energy conservation practices in the housing sector.

xx) Take appropriate steps for standardization and quality marking of building materials.

3.2 The State Government would (in consultation with Urban Local Bodies):

Create a Supportive Environment

i) Prepare the State Urban Housing & Habitat Policy (SUHHP).

ii) Act as a facilitator and enabler in collaboration with ULBs/parastatals/ Private Sector/ Co-operative Sector/NGOs with regard to Integrated Slum Development Projects as well as Integrated Township Development Projects. Further, the State Government will ensure suitable flow of financial resources to potential EWS/LIG beneficiaries as well as undertake viability gap funding of large housing and habitat development projects.

iii) Prepare medium term and long term strategies for tackling problems relating to provision of adequate water supply, drainage, sewerage, sanitation, solid waste management, power supply and transport connectivity.

iv) Promote and incentivise decentralized production and availability of local building materials.

v) Prepare and update Master Plans alongwith Zonal Plans, Metropolitan Plans, District Plans and the State level Regional Plan by respective agencies with provision of adequate land for urban poor.

vi) Promote balanced regional development by observing appropriate prudential norms.

Legal & Regulatory Framework

vii) Review the legal and regulatory regime for introducing simplification and rationalisation with a view to giving a boost to housing and supporting infrastructure.

viii) Enable urban local bodies to take up regulatory and development functions.

ix) Take all necessary steps for implementation of the State Urban Housing & Habitat Policy.

Public-Private Partnerships

x) Promote well designed Public-Private Partnerships for undertaking housing and infrastructure projects.

xi) Encourage Cooperative Group Housing Societies, Employees Organizations, labour housing promotion organization, Non-Government Organizations (NGO) and Community Based Organizations (CBO) to have Partnerships with Urban Local Bodies/Parastatals in relation to housing related microfinance and housing development.

xii) Promote in-situ slum upgradation with partnership between the Central Government, State Government , Urban Local Bodies, Banks/MFIs and potential beneficiaries.

Skill Upgradation

xiii) Facilitate training and skill upgradation of construction workers.

Management Information System

xiv) Develop appropriate Management Information System for different level of governance.

Research & Development (R&D)

xv) Promote R&D activities in the field of building materials and technologies and promote their use in housing and infrastructure projects.

Optimum Utilization of Land

xvi) Promote optimal utilization of land by innovative special incentives like relaxation of FAR for ensuring that 20-25% of the FAR are reserved for EWS/ LIG units or issuance of Transferable Development Rights for clearance of transport corridors and availability of FAR in outer zones.

xvii) Consider for upward review the presently authorized Floor Area Ratio (FAR) in line with international practice of making more efficient use of scarce urban land through construction of high rise buildings in consonance with densities specified in statutory Master Plans.

Integrated Townships, Urban Extensions & SEZs

xviii) Develop Greenfield towns & integrated urban housing extensions of existing towns with complementary infrastructure or Special Economic Zones (SEZs) with both FDI and national investments in housing and infrastructure.

xix) Ensure that such fully integrated housing projects are well connected by MRTS corridors.

3.3 The Urban Local Bodies/Development Authorities/Housing Boards would (in consultation with all stakeholders):

Create a Supportive Environment

i) Develop capacity building at the local level to design and take up inner-city development scheme, in-situ slum upgradation projects and slum relocation projects through suitable training programme.

ii) Implement Central and State sector schemes pertaining to housing and infrastructure sector at the city level with appropriate provision for EWS and LIG beneficiaries in the Master Plan as well as Zonal Plans.

iii) Enforce regulatory measures for planned development in an effective manner.

iv) Check the growth of unauthorized colonies, new slums, unauthorized constructions, extensions of existing properties and commercialization of residential areas.

Urban Planning

v) Ensure that Development Plans/Master Plans as well as Zonal Plans and Local Area Plans are made and updated regularly so that adequate provision is made for the homeless as well as slum dwellers.

vi) Prepare Master Plan and Metropolitan Plans in consonance with the concerned District Plan and the State Regional Plan.

vii) Identify city specific housing shortages and prepare city level Urban Housing & Habitat Action Plans for time bound implementation. Wherever necessary and feasible, ULBs as well as other parastatal would provide viability gap funding especially for EWS/LIG housing and supporting infrastructure so as to ensure better affordability by the poor and financial viability of slum upgradation projects.

viii) Promote planning and development of industrial estates along with appropriate labour housing colonies serviced by necessary basic services.

ix) Incorporate provisions of model building bye-laws prepared by Town & Country Planning Organization (TCPO) and National Building Code in their respective building bye-laws. Make suitable provisions in the Building Bye-laws for innovative energy conservation practices and mandatory rain water harvesting for specified owners of buildings.

x) Devise capacity building programmes at the local level.

Public-Private Partnerships

xi) Promote participatory planning and funding based on potential of local level stakeholders.

xii) Develop suitable models for private sector's assembly of land and its development for housing in accordance with the Master Plan.

xiii) Promote Residents' Welfare Associations (RWAs) for specified operation and maintenance of services within the boundaries of given colonies as well as utilize their assistance in developing an early warning system relating to encroachments.

xiv) Involve RWAs/CBOs in collaboration with conservancy organizations at the local level for effective cleaning of streets/lanes and solid waste disposal at the colony level.

Special Programme for Disadvantaged Sections

xv) Devise innovative housing programmes for meeting the housing shortage with special focus on vulnerable groups.

Environment and Ecology

xvi) Devising adequate safeguards for promoting a healthy environment with special emphasis on 'green lungs' of the city in terms of parks, botanical gardens and social forestry as well as green belts around cities/towns.

Security & Safety

xvii) Ensure Safety & Security in residential and institutional areas which may include construction of boundary walls around housing colonies as well as installation of security stems.

3.4 Banks and Housing Finance Institutions (HFIs) would:

Outreach

i) Reassess their strategies to be more inclusive in terms of both low-income beneficiaries belonging to EWS and LIG as well as extend/intensify their coverage in low income neighbourhoods.

Housing Finance

ii) Promote innovative financial instruments like development of Mortgage Backed Securitization Market (MBSM), and Secondary Mortgage Market.

iii) Enhance / strengthen the income spread of their housing loans portfolio to increasingly cover BPL and EWS beneficiaries.

iv) Adopt a more flexible and innovative approach in relation to credit appraisal norms.

v) Develop financial products which encourage EWS and LIG housing beneficiaries to take insurance cover.

vi) HFIs could also look at ploughing part of their resources towards financing slum improvement and upgradation programmes.

Special Programmes for Vulnerable Sections

vii) Provide loans at concessional rate of interest to specified persons for purchasing a house site or house.

viii) Devise innovative housing finance schemes for targeting the EWS and LIG segments of the housing market with suitable subsidy support from the Central and State Governments.

ix) Promote MFIs and Self Help Groups for mobilizing savings and playing a significant role in the housing finance sector. Provide housing loans to EWS and LIG segments as a priority sector of banking as in the case of rural development programmes.

x) Encourage potential EWS and LIG beneficiaries to form Cooperative Group Housing Societies.

3.5 Public agencies/parastatals would:

i) Revisit their strategy of operations and chart out a role relating to land assembly and development of fully serviced land with essential services.

ii) Design multiple products to suit clients requirements.

iii) Forge partnerships with the private sector and cooperatives for housing and infrastructure development especially with reference to Below Poverty Line (BPL)/ EWS and LIG segments of the market.

iv) Use land as a resource for housing with special focus on the urban poor.

v) Reduce their dependence on budgetary support in a phased manner and access loans through better product development and implementation on the one hand and better bankability in terms of escrow account and land mortgage on the other hand.

3.6 Cooperative and Private Sectors would:

i) Undertake land assembly and development with special focus on housing with complementary basic services.

ii) Design public-private partnerships for slum reconstruction on a cross subsidization basis.

iii) Augment housing stock at an accelerated rate both on ownership and rental basis with a view to overcoming shortage of EWS/LIG housing units.

IV. Role of Research & Development Standardisation & Technology Transfer Organisations

4. Research and Development, Standardization and Technology

Transfer Organisations would:

i) Undertake research to respond to different climatic conditions with a focus on transition from conventional to innovative, cost effective and environment friendly technologies.

ii) Develop and promote standards in building components, materials and construction methods including disaster mitigation techniques.

iii) Intensify efforts for transfer of innovative technologies and materials from lab to field.

iv) Accelerate watershed development to conserve water, stop soil erosion and re-generate tree cover in order to improve habitat.

V. Specific Areas of Action

5.1 Land

i) Land assembly, development and disposal will be encouraged both in the public and private sectors.

ii) Assembly of land for specified use as per Master Plan will be done by observing the best norms of Regional Planning. District Plans and Metropolitan Plans will be prepared in compliance with the stipulations of the 74th Constitutional Amendment Act. District Plans and Metropolitan Plans will function as sub set of the Regional Plan.

iii) Private Sector will be allowed to assemble a reasonable size of land in consonance with the Master Plan/Development Plan of each city/town.

iv) 10 to 15 percent of land in every new public/private housing project or 20 to 25 percent of FAR / Floor Space Index (FSI) which is greater will be reserved for EWS/LIG housing through appropriate legal stipulations and spatial incentives.

v) A Special Action Plan will be prepared for urban slum dwellers with special emphasis on persons belonging to SC/ST/OBCs/Minorities/Economically weaker Sections / physically handicapped and Minorities. Due consideration would be given so that Safai Karamcharies and Scavengers are not geographically and socially segregated.

vi) Beneficiary-led housing development will be encouraged. Suitable percentage of land developed by the Public Sector will be provided at institutional rates to organizations like Cooperative Group Housing Societies, which provide housing to their members on a no-profit no-loss basis. Employee Welfare Organizations will also be promoted since they operate on a no-profit noloss basis. A special package will also be worked out for Labour Housing.

5.2 Finance

i) In order to ensure that 10 to 15 percent of land or 20 to 25 percent of FAR /FSI whichever is greater is earmarked in every new public/private housing project, appropriate spatial incentives will be developed by Urban Local Bodies (ULBs) and Development Authorities.

V. Specific Areas of Action

ii) A Secondary Mortgage Market may be promoted by the Reserve Bank of India(RBI)/ National Housing Bank (NHB). This will enhance transparency and flexibility in the housing market.

iii) Residential Mortgage Based Securitization (RMBS) need to be nurtured through NHB, Scheduled Banks and Housing Finance Corporation (HFCs).

iv) A Model Rent Act will be prepared by the Government of India to promote rental housing on the principle that rent of a housing unit should be fixed by mutual agreement between the landlord and the tenant for a stipulated lease period prior to which, the tenant will not be allowed to be evicted and after the expiry of the said lease period, the tenant will not be permitted to continue in the said housing unit.

v) The feasibility of a National Shelter Fund to be set up under the control of the National Housing Bank for providing subsidy support to EWS/LIG housing would be examined in consultation with Ministry of Finance. The NHB will act as a refinance institution for the housing sector.

vi) Housing and Urban Development Corporation Ltd. (HUDCO) will be directed to observe the aims and objectives listed in its Memorandum of Association and Articles of Association with a view to encouraging EWS/LIG housing.

vii) Efforts should be made to encourage Foreign Direct Investment (FDI) from Non Resident Indians (NRIs) and Persons of Indian Origin (PIOs) in the housing and infrastructure sector in consultation with the Ministry of Finance and RBI.

viii) Suitable fiscal concessions for promoting the housing sector may be developed by the Ministry of Housing & Urban Poverty Alleviation in collaboration with the NHB and the Ministry of Finance.

ix) Central Government and Governments of States/UTs will promote innovative forms of public-private partnerships.

x) States/UTs will be advised to develop 10 years perspective Housing Plans with emphasis on EWS and LIG sectors.

xi) Special financial and spatial incentives would be developed for inner-city slum redevelopment schemes.

xii) The Central and State/UT Governments would develop a special package of incentives for in-situ slum upgradation.

xiii) In order to facilitate RMBS transactions, stamp duty on the instruments of RMBS across all states would be rationalized.

xiv) Rental housing provides a viable alternative option to the home seekers and the house providers alike. Incentives are to be provided for encouraging lendings by financial institutions, HFIs and Banks for rental housing. Also, Companies and Employers will be encouraged to invest in the construction of rental housing for their employees.

xv) Plan Funds and other assistance for housing and infrastructure would be dovetailed according to the Action Plan prepared and adopted by the States under their State Urban Housing and Habitat Policy (SUHHP). This would bring about synergies in the operation of various schemes and funding sources.

xvi) Micro-Finance Institutions (MFIs) would be promoted at State level to expedite the flow of finance to urban poor. In this regard, suitable mechanisms would be evolved to develop simplified norms for prudential rating and providing finance to MFIs. Adequate regulation of MFIs would be undertaken to ensure that MFIs do not burden the poor by charging usurious interest rates and their operations are kept transparent.

5.3 Legal and Regulatory Reforms

i) Model Guidelines will be developed by the Central Government for use by States/ UTs for regulation of land supply with a view to reducing speculation in land and haphazard development in urban areas and along inter-city transport corridors.

ii) In line with Central Government's decision to repeal the Urban Land Ceilings Act, the States (who have not already repealed the Act) will be encouraged to repeal the said Act.

iii) A single window approach would be developed by the Urban Local Bodies/ parastatals for approval of Building Plans and securing Certificates in collaboration with the Council of Architects or their State/UT chapters.

iv) Adoption of the Model Municipal Law prepared by the Central Government with suitable modifications, if required, at the State/UT level needs to be encouraged.

v) Revision of Master Plans would be done periodically with wide public participation and should take care of the expansions of the city due to urbanization.

vi) Awareness generation and advocacy for increased use of the Securitization and Reconstruction of Financial Assets and Enforcement of Security Interest Act,2002 and the Recovery of Debts due to Banks and Financial Institutions Act,1993 (DRT Act) to ensure expeditious recovery of housing debts.

vii) Stamp Duty reforms should be initiated to bring incidence of duty in all States/UTs at par.

viii) Property Tax reform based on unit area method needs to be encouraged in all States/UTs and ULBs.

ix) States will be encouraged to adopt the Model Cooperative Housing Act.

x) All States would be encouraged to refine/enact a Town and Country Planning Act in order to promote Regional Planning at the State/UT level.

xi) States/UTs would be encouraged to use Information Technology for maintaining urban land records and providing non-encumbrance certificates on the basis of e-enabled data and digitized certification.

xii) States/UTs will be encouraged to enact Apartment Ownership Acts.

xiii) States/UTs will be encouraged to undertake urban reforms listed under the JNNURM.

xiv) A Citizen’s Charter should be developed to safeguard the interests of customers vis-à-vis housing schemes offered by both the public and private sectors.

xv) The land revenue records of the States/UTs would be computerized and put on Geographic Information System (GIS) mode within a time frame.

xvi) Environmental safeguards in respect of housing and construction projects will be considered in consultation with Ministry of Environment and Forests and modalities for compliance of their guidelines will be worked out.

5.4 Technology support and its transfer

i) States would be encouraged to prepare detailed city maps on the basis of the GIS mapping through satellite data, aerial survey and ground verification.

ii) Low energy consuming and using renewal form of energy for construction techniques and rain-water harvesting technologies will be encouraged.

iii) Use of prefabricated factory made building components will be encouraged for mass housing, so as to achieve speedy, cost effective and better quality construction.

iv) Central and State/UT Governments should promote low cost, local building materials based on agricultural and industrial wastes, particularly those based on fly ash, red mud and allied local materials.

v) Enforcement of the Building Code/Building Guidelines relating to disaster resistant planning and technologies will be taken up and specific elements in different disaster prone zones will be made compulsory.

vi) Transfer of proven, cost-effective building materials and technologies would be encouraged by transfer from lab to land.

vii) States/UTs will be encouraged to include new building materials in their schedule of rates.

viii) Demonstration houses using cost effective materials and alternate technologies will be got constructed by the Building Materials and Technology Promotion Council (BMTPC) set-up by the Central Govt. and by other appropriate Public/Private Sector agencies.

ix) Use of wood has already been banned by the Central Public Works Department (CPWD). State PWD Departments need to take similar steps in this direction. Use of bamboo as a wood substitute and as a general building component would be encouraged.

5.5 Infrastructure

i) Efforts will be made to encourage ULBs/Development Authorities and other concerned agencies to follow the Urban Development Plans Formulation and Implementation (UDPFI) Guidelines issued by the Ministry of Urban Affairs and Employment in 1996 in order to improve the quality of Master Plans/Development Plans, Zonal Plans and Local Area Plans of all cities/ towns. The States will be advised to prepare a dynamic plan with provision for review every five years.

ii) Development of a Mass Rapid Transit System (MRTS) at the sub-regional level around metropolitan cities will be encouraged.

iii) All States would be encouraged to develop a 'Habitat Infrastructure Action Plan' for all cities with a population of over 1,00,000.

5.6 Sustainability Concerns

i) Green belts will be developed around cities with a view to maintaining the ecological balance.

ii) Suitable green recreational areas like zoo, lakes and gardens will be earmarked / developed for public visits in the Master Plan of each city/town.

iii) Water bodies will be protected with special emphasis on keeping the flood plains of tropical rivers free from construction or encroachments.

iv) Efforts will be made to ensure that Master Plans protect large depressions from being filled up since they are natural drainage points for conservation of water and can be developed as suitable water bodies.

v) Efforts will be made to encourage cities/towns to keep a significant proportion of the total Master Plan area as *'green lungs of the city.'*

vi) Efforts will be made to encourage States/UTs to develop Sub-regional/ Special Area Development Plans for areas with fragile ecological characteristics on the basis of Environment Impact Assessment (EIA) so as to take care of all environmental concerns at the planning stage itself in consultation with the Ministry of Environment & Forests.

vii) Growth of a city beyond reasonable limits imposes unbearable strain on its services. City planners would be encouraged to lay down norms for development of urban sprawls and satellite townships.

viii) Reduction in the rate of in-migration into mega and metro cities is urgently needed through preparation of State/UT level regional Plans based on fast transport corridors for balanced growth.

ix) Model bye-laws will be developed to promote the use of renewable energy sources particularly solar water heating systems in residential and commercial buildings.

x) Poverty and unemployment are detrimental to the well balanced growth of urban settlements. States/UTs Governments and local authorities will be encouraged to formulate and implement poverty alleviation and employment generation programmes based on skills' training especially in the services sector.

5.7 Employment issues relating to the Housing Sector

i) Efforts will be made to provide good quality training to construction workers with a view to improving their skills in tandem with technological advancements in the construction sector.

ii) The Construction Industry is one of the biggest employers of women workers and is perhaps their biggest exploiter in terms of disparity in wages. Concerted efforts will be made to upgrade the skills of women construction workers, induct them at supervisory levels and also develop them as contractors. Both public and private agencies would be encouraged to take a lead in this. Training institutions will be requested to enroll women trainees on a preferential basis.

iii) Efforts will be made to get States/UTs to enact legislation on the pattern of the Building & Other Construction Workers (Regulation of Employment & Conditions of Service) Act, 1996 of the Central Government with a view to ensuring that adequate measures are undertaken by employers for the occupational health and safety of all workers especially women engaged in construction activities. Efforts will also be made to ensure use of modern techniques and modern safety equipment at construction sites with strict penalties for non-compliance.

iv) Construction companies/public authorities will be directed to provide adequate support services like crèches and temporary rest accommodation with appropriate toilet facilities at construction sites.

v) Effort will be made to get States/UTs to enact legislation on the pattern of the Building & Other Construction Workers Welfare Cess Act, 1996 of the Central Government and ensure adequate provision for skills upgradation of construction workers.

vi) States/UTs will be encouraged to adopt a decentralized pattern of training for ensuring better coverage.

5.8 Slum improvement and upgradation

i) The Jawaharlal Nehru Urban Renewal Mission has started to play a vital role both in slum improvement as well as *in-situ* slum rehabilitation along with Specific Areas of Action provision of security of tenure, affordable housing and basic services to the urban poor.

ii) Specially designed slum improvement programmes will also be encouraged which focus on upgrading of basic services and environment improvement of urban slums with a participative, *in-situ* slum rehabilitation approach.

iii) *Inner-city slum redevelopment* programmes for creating a better environment would be encouraged with cross subsidization and special incentives.

iv) *Land pooling and sharing arrangements* would be encouraged in order to facilitate land development and improvement of basic amenities in slums.

v) Release of Transferable Development Rights and additional FAR would be carefully considered for accelerating private investment in provision of shelter to the poor. Community Based Organizations (CBOs), Non-Governmental Organizations (NGOs) and Self-Help Groups (SHGs) would be involved in partnership with the Private Sector.

vi) The Policy gives *primacy to provision of shelter to the urban poor at their present location* or near their work place and efforts will be made to ensure that rights provided are non-transferable for a period of 10-15 years.

vii) Only in cases, where relocation is necessary on account of severe water pollution, safety problems on account of proximity to rail track or other critical concerns relocation of slum dwellers will be undertaken. In such cases, special efforts will be made to ensure fast and reliable transportation to work sites.

viii) Income generating activities in slums, which are non-polluting, will be encouraged on a mixed land use basis. Efforts will be made to structure such activities as an integral part of housing and habitat projects.

ix) The process for integrating the Valmiki Ambedkar Awas Yojana (VAMBAY) and the environment improvement scheme titled National Slum Development Programme (NSDP) has been undertaken through the Basic Services to the Urban Poor (BSUP) in Mission Cities and Integrated Housing & Slum Development Programme (IHSDP) in Non-Mission cities. Efforts will be made to remove hurdles faced by the States/ UTs in implementing these integrated schemes. Further, efforts will also be made to enhance funds under IHSDP as well as develop a new scheme for meeting water, drainage, sanitation and sewerage concerns in slums located in smaller towns with a population below 5 lakhs.

x) Formation of Group Cooperative Housing Societies of urban poor and slum dwellers will be encouraged across the country for providing better housing serviced by basic amenities through thrift and credit based CBOs.

VI. Action Plan

6. i) The Central Government will encourage and support the States to prepare a *State Urban Housing and Habitat Policy* and also a *State Urban Housing & Habitat Action Plan*. This may include passing of specific Acts by the States/UTs (with legislature) for achieving the housing policy objectives through legal & regulatory reforms, fiscal concessions, financial sector reforms and innovations in the area of resource mobilization for housing and related infrastructure development at the State/UT level.

ii) In order to augment sustainable and affordable housing stock alongwith related infrastructure like water, drainage, sanitation, sewerage, solid waste management, electricity and transportation, *the Action Plans of States/UTs* should focus on accelerated flow of funds for housing (including various cost-effective slum-related options) and infrastructure.

The State/UT Action Plan should also encourage promotion of planned and balanced regional growth, creation of sustainable employment opportunities, protection of weaker sections/ vulnerable groups preferably in their present residential location, conservation of urban environment and promotion of public private partnerships.

iii) *The State/UT level Policy and Plan should also provide a road map pertaining to institutional, legal, regulatory and financial initiatives* in relation to (i) supply of land (ii) modification of Acts/Bye-laws (iii) promotion of cost effective building materials and technologies (iv) infrastructure development and (v) *in situ* slum development. Further, *the Action Plan should make specific provision for use of information technology for planning, MIS and online e-connectivity in a time bound manner.*

iv) *The State/UT level Policy and Plan should also indicate concrete steps for motivating, guiding and encouraging a participatory approach involving all stakeholders* like CBOs, NGOs, State parastatals, ULBs, Cooperative Sector and Private Sector in order to synergise community, cooperative and private resources alongwith Government resources.

v) *A Monitoring framework at the State/UT level should be set up* to periodically review the implementation of the Policy and concomitant Action Plan.

vi) At the local level, *cities should prepare 15-20 years perspective plans in the form of City Development Plans which take into account the deficiencies in housing and urban infrastructure with special emphasis on the urban poor* and indicate a vision based on various levels of spatial plans – Master Plan and Zonal Plans, Metropolitan Plan, District Plan and State/UT based Regional Plan – alongwith an investment plan for their implementation.

vii) A High Level Monitoring Committee at the Central Government level would be set up to periodically review the implementation of the National Urban Housing & Habitat Policy 2007 and make amendments/modifications considered necessary.

VII. The Ultimate Goal

VII. The Ultimate Goal

The ultimate goal of this Policy is to *ensure sustainable development of all urban human settlements, duly serviced by basic civic amenities for ensuring better quality of life for all urban citizens*. The Action Plan at the State/UT level in this regard must be prepared with the active involvement of all stakeholders. The National Urban Housing and Habitat Policy, 2007 also lays special emphasis on provision of social housing for the EWS/LIG categories so that they are fully integrated into the mainstream of ecologically well-balanced urban development.

NATIONAL URBAN HOUSING AND HABITAT POLICY. 2006

Ministry of Urban Employment & Poverty Alleviation,
Government of India, Nirman Bhawan, New Delhi

1. PREAMBLE

The Need for Policy

1.1 Shelter is one of the basic human needs just next to food and clothing. Need for a National Housing and Habitat Policy emerges from the growing requirements of shelter and related infrastructure. These requirements are growing in the context of rapid pace of urbanization, increasing migration from rural to urban centres in search of livelihood, mis-match between demand and supply of sites & services at affordable cost and inability of most new and poorer urban settlers to access formal land markets in urban areas due to high costs and their own lower incomes, leading to a non-sustainable situation. This policy intends to promote sustainable development of habitat in the country, with a view to ensure equitable supply of land, shelter and services at affordable prices.

Urbanization and Development

1.2 Urbanization and development go together and rapid pace of development leads to rapid growth of urban sector. Urban population of India is likely to grow from 285.3 million in 20011 to 360 million in 2010, 410 million in 2015, 468 million in 2020 and 533 million in 2025 (Annexure-I), as per the projections based on historical growth pattern of population (1901 - 2001).

1.3 India is undergoing a transition from rural to semi-urban society. Some States (Maharashtra, Mizoram, Tamilnadu and Goa), as per Census 2001, have already attained urbanization level of 35 to 50%[11] . As per the projections based on historical growth pattern (1901 - 2001), nearly 36% of India's population is likely to be urbanized by 2025 (HSMI). However, since the current pace of development (with around 7% growth of GDP) is particularly high and will increase further with growing investments, the actual growth of urban population is likely to be more than these projections.

1.4 The decadal growth rate of urban population in India is significantly higher than rural population, being 23.9 & 20.0 during 1981 - 1991 and 21.4 & 18.0 during 1991-2001 respectively. Average annual rate of change (AARC) of total population in India during 2000-2005 is estimated (Census of India, 2001) at 1.41% as compared to 2.81% for urban and 0.82% for rural sectors (Annexure-II). AARC for urban areas during 2025-30 will increase to 2.25% whereas the AARC for total population will decline to 0.77% during the same period, as per United Nations estimates (1999).

1.5. Although India is undergoing rapid pace of development, job opportunities are not growing in the same proportion. This is largely attributed to a near stagnation of employment in agriculture during 1993-2000, although employment in the services such as trade, hotel, restaurant, transport, insurance, communication, financial, real estate and business services have shown significant increase of 5-6%[1] This factor contributes to rapid pace of urbanization.

Rural to Urban[2] Shift of Labour Force

1.6 The share of agriculture in the total workforce has shown considerable decline from 60% in 1993-94 to 57% in 1999-20003. The share of primary sector is likely to decline further to 37% in 2030 (see Annexure-III)[4]. This means a large number of rural workforces will migrate to urban areas in search of jobs in secondary and tertiary sector. It is important for them to have access to employment, shelter and related services failing which they will contribute to mushrooming growth of slums and substandard habitat.

1.7 The growth of rural population is declining constantly. The Average Annual Rate of Change of total rural population will decline from 0.82% during 2000-2005 to (-) 0.40% during 2025-301. This indicates the shift of agricultural workforce to other sectors.

Regional Balance

1.8 With the shift of labour force from rural to urban and consequently rapid pace of urbanization, there is need to ensure a balanced regional growth alongwith suitable supply of land, shelter and employment opportunities so that the inflow of migrants get distributed across various urban centers and any undesired concentration of urban population in mega/ metro cities.

Integrated Township & Greenfield Development

1.9 It is important to promote in-situ urbanization to reduce overall pace of rural to urban migration. This again has to among others focus on supply of land, shelter, related infrastructure and employment opportunities. This can be achieved through development of integrated townships using in-situ facilities/advantages or in Greenfield' situations. This will avoid overcrowding in existing town and cities.

Role of Housing

1.10 Housing, besides being a very basic requirements, holds the key to accelerate the pace of development. Investments in housing like any other industry, have a multiplier effect on income and employment. It is estimated that overall employment generation in the economy

due to additional investment in the housing/construction is eight .times the direct employment[1]. The construction sector provides employment to 16% of the work force (absolute number 146 lakh-1997). It is growing at the rate of 7%. Out of this, the housing sector alone accounts for 85.51akh workers. However, nearly 55% of them are in the unskilled category[2]. Skill upgradation would result in higher income for the workers Housing provides employment' to a cross-section of people which importantly include poor.
Housing also provide opportunities for home-based economic activities. At the same time, adequate housing also decides the health status of occupants. Therefore, on account of health and income considerations, housing is a very important tool to alleviate poverty and generate employment.

Magnitude of Poverty

1.11 The magnitude of Urban Housing requirement is linked to emerging pattern of growth of cities/towns, and also the present settlement status and quality which may require upgradation. Cities and towns which are growing at faster rate need to develop and deliver a faster and greater supply of housing. The need for additional housing, for increasing poorer sections does not get translated in an economic demand due to non affordability by the EWS/LIG sections, thus leading to a sizeable number of urban population resorting to squatting on government/municipal lands, leading to creation of slums. The growth of slums in India has been at least two or' three times higher than the' growth of urban population and as estimates, 21.7 percent urban population lives in slums3. Proper housing has to be provided to slum dwellers preferably in-situ, including access to minimum services. As .per Planning Commission estimates[4], the total out of 22.44 million dwelling units In urban areas consisting of urban housing backlog of 8.89 million dwelling units at the beginning of 10th Plan (2002) and additions of new housing of 13.55' million dwelling units. This total requirement of 22.44 million dwelling units is estimated to require Rs.4,26,967/- crores[5]. Most of this (except for social housing) is expected to come from the Private Sector. As per the same estimates, 81 % of new pucca housing needs of EWS and LIG. Thus social housing needs the highest attention by all stakeholders. [3]

1.12 Adequacy of housing is directly linked to magnitude of poverty. Poor lack housing in terms of tenure, structure and access to services. As per Planning Commission (1999-2000) estimate, 23.6% of urban population in India lives below poverty line. There is a strong correlation between slum and poverty. As per Planning Commission estimation 67.1 million urban population in 1999-2000 lived below poverty line whereas the population living in slums in 2001 has been estimated by Town & Country Planning Organization (TCPO) at 61.8 million 1.

Therefore, adequate access to shelter and habitat is also linked to state of poverty. In quantitative terms, access to basic amenities in urban areas reflects 9% deficiency in drinking water, 26% in latrine and 23% in drainage2 (Census of India, 2001). However, the gap in qualitative terms could be much higher.

Emergence of Sustainable Habitat

1.13 In order to generate suitable strategies for housing and sustainable development of human settlements, this Policy takes note of shelter conditions, access to services and opportunities for income and employment generation with particular reference to poor. This policy also takes into account the growth pattern of settlements, the investment promotion opportunities, env1ronmental concerns, magnitude of slums and sub-standard housing. This policy recognizes the need for a sustainable urban structure which is able to (i) absorb urban population with suitable access to shelter, services and employment opportunities and (ii) to serve as service centre to their vast hinterland.

1.14 This policy re-affirms the importance of small and medium sized urban agglomerations (UAs)/towns which have a vast potential for future urban growth and also promote regional balance. These 3975 UAs/towns constitute only 31% of the urban population, although by constitute in number over 90% of the UAs/towns. Our policy should be able to promote growth potential of these 3975 UAs/towns to divers the rapid migration to mega/ metro cities. At the *same* time, this policy also focuses on in-situ urbanization.

Policies and Programmes

1.15 This Policy is in continuation of Public Sector interventions and related developments of human settlement sector in India during a period of last 15 years which began with the Economic Liberalization Policy of 1991, National Housing Policy, 1994, National Housing & Habitat Policy, 1998 and follow up of 74th Constitution Amendment of 1992. These policy initiatives focused on transition of Public Sector role as 'facilitator', increased role of the private sector, decentralization, developr.1ent of fiscal incentives and concessions, accelerated flow of housing finance and promotion of environment-friendly, cost-effective and pro-poor technology.' The Government, however, should retain its role in social housing so that affordable housing is made available to EWS and LlG sections of the population as currently though they may be the service providers, they lack affordability and are hopelessly outpriced in the urban land markets.

1.16 The policy frame-work and subsequent development of programmes and schemes covering Two-million Housing, Valmiki Ambedkar Awas Yojana (VAMBAY), National Slum Development Programme (NSDP), Swarna Jayanti Shahri Rozgar Yojana (SJSRY), etc. have yielded fairly positive results in the area of housing and human settlements. There has been a quantum jump in the supply of serviced land, habitable shelter and related infrastructure. For example, in the first 2 years of the 10th Plan period, financial assistance was provided (which was 93% of the targeted amount) for construction of 218764 dwelling units under V AMBA Y scheme. Similarly, total number of beneficiaries under NSDP and SJSRY were 37.28 million and 31.77 million respectively during the same period. ,The period 1991 to 2001 witnessed a net addition of 19.52 million dwelling units in the urban housing stock 1, amounting to average annual construction of 1.95 million houses. The share of ownership housing in urban areas has increased from 63% in 1991 to 67% in 2001[1] (Census, 2001). It is important to note that households having one room accommodation declined significantly in urban areas from 39.55 per cent to 35.1 per cent during the period 1991 to 2001[1]. This is a result of upward shift of accommodation and accelerated supply of housing stock.

1.17 National Urban Renewal Mission (NURM): NURM would support 63 cities (7 mega cities, 28 metro cities and 28 category 'C' cities) across the country in terms of investment into infrastructure gaps, taking the urban system form a non conforming state with proper planning and all urban infrastructure in place having roads, water sanitation, sewerage, etc. after removing deficiencies. The Mission approach will be reform based with releases being made subject to specified reform agenda. It will encourage private sector participation with the Government providing visibility gap funding through the Mission to such housing and urban infrastructure projects. In addition to these 63 cities, urban infrastructure and alums would also be addressed in the remaining. Non-Mission cities through specific programmes /schemes which will also be reform based.

1.18 NURM is expected to inter-alia overcome the shortage of social housing for the poor in urban areas in select cities also to redevelop the urban areas, presently having slum-like appearance through its Sub-Mission cities, a social housing scheme [4] titled 'Integrated Housing and Slum Development Programme (IHSDP) has been put in place. These schemes/ programmes will, in addition to tenure and housing, also cater to other basic services like sanitation, water supply, etc.

1.18 This policy takes note of Government's special focus on shelter for all and development of related infrastructure with a particular reference to poor and promotion of economic development, quality of life and safe environment. In this regard, Government of India has initiated NURM (National Urban Renewal Mission) with the objective to accelerate the supply of land, shelter and infrastructure taking into account the requirements of economic development with a particular reference to balanced regional development, poverty alleviation and rapid economic development.

Focus Areas

1.19 Housing and Habitat Policy needs to focus on status of livelihood covering shelter and related infrastructure to promote sustainable development of habitat. In this regard, cities play' significant role to operate as engines of economic growth and also rural development by providing linkages to their hinterland. At the same time, in-situ urbanization has also to be promoted to improve connectivity of rural sector clusters by inter-alia providing shelter, services and income generating activities.

1.20 This policy takes note of Government's special focus on "Shelter for All" and development of related infrastructure with particular reference to the poor and promotion of economic development, quality of life and safe environment.

1.21 This policy seeks a solution to bridge the gap between demand and supply of housing and infrastructure to achieve a policy objective of increased supply at affordable prices. In this regard, specific initiatives are suggested to further reorient the public sector role as facilitator. At the same time, convergence of resources is essential to provide synergy by involving various stakeholders in the supply of housing .and infrastructure in the overall context of sustainable development of human settlements.

1.22 This policy draws from the innovations in the are3S of housing and infrastructure in India and elsewhere. It also gives a menu vf actionable points which interalia includes promotion of FDI (Foreign Dir3ct Investment), Public-Private Partnerships, securitization & development of secondary mortgage markets, and encourage savings to accelerate supply of investible funds, pro-poor development of partnerships, conservation of natural resources, development of environment-friendly, investment-friendly and revenue-generating regulations and bye-laws, etc. The purpose is to guide various stakeholders to take well planned, concerted, transparent, mutually-acceptable and pro-poor initiatives in the best possible manner.

1.23 This policy plans further expansion of fiscal concessions and incentives to motivate, persuade and encourage various s1akeholders to participate in the delivery of housing and infrastructure. However, the public sector shall continue its direct interventions to safeguard the interests of the poor and marginalized sections of the Indian society.

1.24 Finally, this policy tends to build synergy, convergence and integration of housing and related infrastructure interventions. This policy aims to act as complementary to poverty alleviation, generation of income and employment to achieve overall objective of shelter for all and sustainable development of human settlements.

1.25 This policy dwells upon role of various stakeholders and specific actions pertaining to Land, Finance, Legal and Regulatory Reforms, Technology Support and Transfer, Infrastructure, Sustainability concerns, Employment issues in the building sector, Slum Improvement and Upgradation, Social Housing, etc. along with Action Plan and Follow up related aspects.

2. Aims

The Housing & Habitat Policy aims at :

(i) accelerating the pace of development of housing and related infrastructure.

(ii) creating adequate and affordable housing stock both on rental and ownership basis.

(iii) encouraging State Government/ Development authorities to periodically update their Master Plans and Zoning Plans which should inter-alia adequately provide for the poor/service providers.

(iv) facilitating accelerated supply of serviced land and housing with particular focus on EWS and LIG categories and taking into account the need for development of supporting infrastructure and basic services to all categories.

(v) facilitating upgradation of infrastructure of towns and cities and to make these comparable to the needs of the times.

(vi) ensuring that all dwelling units have easy access to basic sanitation facilities and drinking water.

(vii) promoting larger flow of funds to meet the revenue requirements of housing and infrastructure using innovative tools. .

(viii) providing quality and cost effective housing and shelter options to the citizens, especially the vulnerable group and the poor.

(ix) using technology for modernizing the housing sector to increase efficiency, productivity, energy efficiency and quality. Technology would be particularly harnessed to meet the housing needs of the poor and specific requirements of green housing and natural disasters.

(x) guiding urban and rural settlements so that a planned and balanced growth is achieved with the help of innovative methods leading to in-situ urbanization.

(xi) developing cities and towns in a manner which provide for a healthy environment, increased use of renewable energy sources ,and pollution free atmosphere with a concern for solid waste disposal, drainage, etc.

(xii) using the housing sector to generate more employment and achieve skill upgradation in housing and building activity, which continue to depend on unskilled and low wage employment to a large extent.

(xiii) removing legal, financial and administrative barriers for facilitating access to tenure, land, finance and technology.

(xiv) shifting to a demand given approach for from a subsidy based housing scheme to cost recovery-cum-subsidy schemes for housing through a pro-active financing policy including micro-financing, self-help group programmes.

(xv) facilitating, restructuring and empowering the institutions at state and local governments levels to mobilize land. Further aims at planning and financing for housing and basic amenities.

(xvi) forging strong partnerships between private, public and cooperative sectors to enhance the capacity of the construction industry to participate in every sphere of housing and urban infrastructure.

(xvii) meeting the special needs of SC/ST/disabled/freed bonded labourers slum dwellers, elderly, women, street vendors and other weaker and vulnerable sections of the society.

(xviii) involving disabled, vulnerable sections of society, women and weaker sections in formulation, design and implementation of the housing schemes.

(xix) protecting and promoting our cultural heritage, architecture and traditional skills.

(xx) establishing a Management Information System in the housing sector.

Ensure regular and timely preparation and updation of Master Plans and Zoning Plans for all towns by respective agencies with provision for service providers/poor.

3.1.3 The Urban Local Bodies/ Development Authorities/Housing Boards would:

- ensure that Development Plans/Master Plans/zoning Plans are made and updated in time and have a provision for the service providers/poor.
- identify specific housing shortages and prepare local level Urban Housing Action Plans.
- promote planning of housing and industrial estates together with infrastructure services including roads, safe water supply, waste treatment and disposal, public transport, power supply, health, educational and recreational facilities, etc.
- promote participatory planning and funding based on potential of local level stakeholders
- devise programmes to meet housing shortages and augment supply of land for housing, particularly for the vulnerable groups support private sector in direct procurement of land and subsequent development of housing.
- devise capacity building programmes at the local level
- implement central and state sector schemes and programmes pertaining to housing and infrastructure sector.
- enforce effectively regulatory measures for planned development.

3.2 Banks and Housing Finance Institutions (HFIs) would

- reassess their strategies and identify potential areas for further expansion of their operations towards housing projects and slum improvement and upgradation and urban infrastructure projects.

- promote innovative mechanisms like mortgage guarantee and title insurance to augment fund for housing sector

- devise innovative lending schemes to cover poorer and informal sections, e.g. micro credit for housing to the EWS arid LIG sections of the population. This could be done through NGOs/CBOs/Self-Help Groups who could undertake the tasks of confidence building and mobilizing” small savings from the beneficiaries.

- encourage housing cooperatives to carry out house building activities.

- Look at ploughing part of their resources towards financing slum improvement and upgradation programmes.

- adopt a more flexible and innovative approach to the credit appraisal norms.

- encourage EWS and LlG housing beneficiaries to take insurance cover.

- provide direct Housing Loans to EWS and LlG and this needs to be treated as a priority sector for banks as in the case of rural development programmes.

3.3 Public agencies / parastatals would:

- revisit their method of working and redefine their role for facilitating land assembly, development and provision of infrastructure

- devise flexible schemes to meet the users requirement.

- suitably involve and forge partnerships with the private sector and cooperatives in housing and infrastructure services, specially with reference to the poor and vulnerable sections of the society.

- use land as a resource for housing with particular reference to economically weaker sections and low income groups.

- reduce their dependence on budgetary support in a phased manner.

3.4 Private and Cooperative Agencies would:

- undertake an active role in terms of land assembly, construction of houses and development of amenities within the projects.

- work out schemes in collaboration with the public sector institutions for slum reconstruction on cross subsidization basis.

- create housing stock on ownership and rental basis including for the urban poor (EWS/ LIG).

4. Role of Research & Development, Standardisation and Technology Transfer Organisations

Research & Development, Standardisation and Technology Transfer Organisations would:

(i) undertake research to respond to the different climatic conditions with a focus on transition from conventional to innovative, cost effective and environment friendly technologies.

(ii) develop and promote standards on building components, materials construction methods including disaster mitigation techniques

(iii) intensify efforts for transfer of proven technologies and materials

(iv) accelerate watershed development to conserve water, stop soil erosion and re-generate tree cover in order to improve the habitat.

5. Specific Action areas

5.1 Land

(i) Public agencies would continue to undertake land acquisition for housing and urban services along with more feasible alternatives like land sharing and land pooling arrangements, particularly in the urban fringes, through public and private initiatives with appropriate statutory support. Statutory cover to land acquisition for private builders for housing and urban infrastructure may also be considered subject to guidelines. Special courts may be set up to deal with Land Acquisition disputes expeditiously.

(ii) Land assembly and development by the private sector would be encouraged.

(iii) The Land owning/acquiring agencies of the public sector would earmark land on priority *basis to the Housing Cooperatives within their respective jurisdiction.*

(iv) Conversion of agricultural land to non-agricultural use for housing and integrated townships would be allowed without procedural delays.

(v) In line with the Union Government's decision to repeal the Urban Land Ceiling Act, the States other than those who have already repealed the State Act may be encourage to adopt the repealing Act at the earliest.

(vi) It is necessary to earmark at all levels including in new public/private housing colonies a portion of land at affordable rates for housing for the EWS & LIG. This could be 10-15% land area to accommodate 20-25% dwelling units for EWS/LIG. This would also help in checking the growth of slums.

(vii) An action plan needs to be initiated to provide tenurial rights either in-situ or by relocation at affordable prices to urban slum dwellers with special emphasis on persons belonging tv the SC/ST/Weaker sections/physically handicapped.

(viii) Urban Land needs to be planned to provide for rationalized and optimum density use.

(ix) While allotting house-sites/houses in urban areas developed by either state agencies or the private sector with finance from financial institutions/banks, some percentage as specified by the State Government would be allotted to the families belonging to the Scheduled Castes/Scheduled Tribes communities, weaker sections, BC/OBC, craftsman/artisans and physically handicapped.

(x) Land banks would be created to meet housing requirements of EWS. Since EWS as a 'stand alone' model is not working, it would be integrated with comprehensive housing projects. A suitable model of 'cross subsidization' would be adopted in this regard. Emphasis should be on provision of shelter and not sites for EWS/LIG. As far as possible, houses for the EWS/LIG should be in the shape of a properly planned colony with individual attached toilets and consisting of at least two rooms, and the EWS/LIG sections should be given land tenure/right of membership on the shelter. The houses created for EWS/LIG by cross subsidy from MIG/HIG could be given to the government to be sold to the poor in a transport manner.

(xi) A legislation could be considered with regard to enabling sale of SC/ST land to non-SC/ST categories, which could release large chunks of premium land for alternate use.

(xii) Measurement of land would be standardized - a common unit or easy conversion formula would be developed which would help investors, especially foreigners.

5.2 Finance:

(i) Affordable finance is the next most critical input for housing and infrastructure services. It is imperative to develop and broaden the debt market for housing and infrastructure, fully integrated with the financial market, in the country.

(ii) Recognizing the role of Securitization as a source of funding, initiatives for developing the secondary mortgage market have already been taken by the National Housing Bank (NHB). Further, necessary measures will be undertaken by NHB to strengthen and develop a sound and sustainable Secondary Mortgage Market. These may include promotion and strengthening of specialized activities such as market making, credit enhancement, servicing and SPV roles, etc. The Government would provide a conducive and supportive fiscal and regulatory framework for banks and other participants to actively engage in Residential Mortgate Backed Securitization (RMBS) transactions.

(iii) In order to facilitate RMBS transactions, stamp duty on the instruments of RMBS across all the states would be rationalized (waived/reduced) on the lines of Gujarat, Maharashtra, Tamil Nadu, Karnataka, West Bengal etc.

(iv) Group Housing needs to be encouraged by Societies & Co-operatives. Stamp Duty in such a cases at the stage of raw land and first sale thereafter would be imposed on a Value Added Basis so that transaction costs are not artificially high to the first purchaser and housing/land remains a liquid asset.

(v) Considering the gaps in the supply and cost of funds', Rousing should be considered at par with infrastructure as far as funding and concessions are concerned. This would lower the cost of funds which result in improved afford ability, thereby catalyzing flow of funds into housing

(vi) Rental housing provides a viable alternative option to the home seekers and the house providers alike. Incentives are to be provided for encouraging lendings by financial institutions, HFIs, Banks for rental housing. Also, Companies and Employers will be encouraged to invest in the construction of rental housing for their employees.

(vii) For encouraging rental housing including building of serviced apartments, fiscal concessions in the form of imposition of flat rate of 10 percent of tax on the income on renting of new properties for first five years and depreciation allowance of 50 percent per year on investment made by employers, is recommended.

(viii) Housing Cooperatives would be encouraged, facilitated to take up the delivery of housing units.

(ix) As a measure to diversify the sources of funding for housing, the Housing Finance Companies (HFCs) would be encouraged to develop innovative instruments to mobilize domestic savings in the country to meet the growing needs of the housing sector. Also, long term funding sources such as the Provident and Insurance Funds will be enabled to channelise their funds into housing through investments in RMBS and / or lendings to the HFCs. Enabling and supportive policies will be framed for the setting up and operations of the Real Estate Mutual Funds who can channelise domestic/foreign funds into housing.

(x) There is a pressing need for improving the “availability” and “affordability” of housing loans for the home seekers in the EWS segment. A dedicated Fund called the ‘National Shelter Fund’ (NSF) with an initial contribution of Rs.500 crores from the Government is recommended to be created under the aegis of NHB and HUDCO to provide financial support to primary lending institutions to address the h:>using requirement of poor/EWS. Further it is recommended that additional resources for the NSF be allowed to be raised through Tax-Free EWS Housing Bonds, on tap to be administered by the NHB and HUDCO. An investment by general public in EWS Housing Bonds upto Rs.20,000 is recommended to be allowed as eligible deduction over and above the limits prescribed under Section 80 C of the Income-Tax Act by incorporating a new section. This will go a long way in meeting the housing needs of the poor/EWS segment of the population on an on-going basis.

(xi) A vast segment of the population in the urban areas is currently not being-served by the formal credit institutions for the reason that they are perceived as higher risk. This segment accounts for a sizeable portion of housing shortage in the country. To enable the primary lending institutions (PLIs) to lend to these people, it is recommended to create a “Risk Fund” with an initial corpus of Rs 500 crore (to be contributed by the government) under the aegis of NHB and HUDCO. Modalities need to be worked out including suitable premium on credit risk insurance.

(xii) Housing for the EWS and UG has continued to pose challenge. Besides the contributions required from the Government and the public agencies and the financial institutions, the construction agencies in the private sector would also be incentivised to set aside a part of the constructed project for housing - needs of the EWS/UG. Development Authorities/Private sector would be advised to earmark 10-15% of the land in new housing projects for 20-25% of the dwelling units for EWS/UG sections of population.

(xiii) Foreign Direct Investments, Investment from Non Resident Indians and Persons of Indian Origin would be encouraged in housing, real estate and infrastructure sectors with a level playing field between foreign investors/NRIs/PIOs and domestic investors. FIIs would also be allowed to invest in RMBS issues as this would connect the housing sector with the international capital market and would facilitate cross-border transactions.

(xiv) In view of the limited domestic Institutional capacity to fund fully the investment requirements, HFCs would - be allowed to raise External Commercial Borrowings (ECBs) from the international markets in line with the guidelines on Fully Convertible Commercial Bonds (FCCB). This would enlarge resource base for housing sector as also bring in international stake holding.

(xv) In the matter of resource mobilization by HFCs, Section 80 C (xvi) (a) of IT Act may be amended to permit the benefit to all housing finance companies in public or private sector. This will widen the deposit base for the HFCs in the private sector. Currently, the section allows subscription to deposit schemes of only a public sector company in housing finance.

(xvi) *xvi.* "Real Estate Investment Trusts (REITS)" may be allowed to be set up to serve as mutual fund for real estate development. It is well recognized that the REITs pool-in retail funds and allow individuals with small amounts of cash to take advantage of returns available from the buoyant housing and real estate market. Larger funds would thus become available for investment in housing related projects by the REITs.

(xvii) To enable housing finance institutional mechanism to serve all segments of society in urban areas, constraints like non-availability of clear land title, absence of guarantee mechanism for weaker segments may be removed. Appropriate Insurance Scheme to cover disputes/default in title deeds may be introduced. One time premium in this regard may be shared by Government and the primary lending institutions.

(xviii) To encourage primary lending institutions (PLIs) to enhance credit flow to poor/EWS in urban and slum settlements, Government may allow complete exemption of profit derived from the business of long term housing finance for the weaker segments of the population.

(xix) To encourage HFCs to increase their lending for EWS and UG categories which involves comparatively higher risk and operational costs, the benefit under Section 36 (1) (vii) (a) of IT Act, as available to banks, public finance institutions etc. may be extended.

(xx) Government would encourage Public-Private Partnership (P-P-P) to undertake Integrated Housing Projects. For Projects with provision of at least 10-15% of the land and 20-25% of the houses for economically weaker sections and lower income groups, appropriate tax incentives may be considered.

(xxi) Financial Institutions would be encouraged to fund joint ventures to augment supply of funds for development of housing and related infrastructure. This will inter-alia result in easing of constraints on the supply side.

(xxii) Plan Funds and other assistance for housing and infrastructure would be dovetailed according to the Action Plan prepared and adopted by the States under their State Urban Housing and Housing Policy. This would bring about synergies in the operations of various schemes and the funding sources.

(xxiii) Micro-financing especially for the poor residing in Urban Slums and Squatter Settlements should be encouraged. In this context, Micro-credit for housing should be given a strong impetus to ensure that formal financing channels are able to reach credit to the otherwise non-eligible segments of households who do not satisfy the norms for formal sector lending.

(xxiv) Micro-Finance Institutions (MFls) would be promoted at State level to expedite the flow of formal finance to urban poor. In this regard, suitable mechanisms would be evolved to develop simplified norms for prudential rating and provide wholesale finance to MFls.

5.3 Legal and regulatory reforms

(i) In line with the Union Government's decision to repeal the Urban Land Ceiling Act, the States, other than those who have already repealed the State Act, would be encouraged to adopt the repealing Act at the earliest.

(ii) Procedures for sanctioning building plans would be simplified to eliminate delays through strict enforcement of rules and regulations along with simplified approval procedures to ensure that the system is made user friendly. A single window approach would be developed. Chartered Registered Architects would be allowed to sanction building plans, who would be responsible for enforcement of the norms. Professional responsibility would be vigorously enforced.

(iii) The preparation of a master plan would be made time bound and be put in place before expiry of current plan. The laws and procedure for notification of new master plan would be simplified.

(iv) Master Plans would make specific provision for the involvement of private sector, who should inevitably keep 10-15% of the land area and 20-25% of housing units reserved for EWS/LIG.

(v) All states would be advised to adopt any "Model Municipal Law" prepared by central government. Provisions relating to housing and basic services ay be examined in line with the model law to make specific recommendations for implementation at the state and municipal level.

(vi) Rent Control Legislations in the States would be amended to stimulate investment in rental housing in line with a Model Rent Control Act as may be adopted by the Union Government along with such modification as may be necessary.

(vii) FAR/FSI need to be optimized and increased wherever it can be supported by adequate social and physical infrastructure services (e.g. water, drainage, solid waste management, electricity, road work, sewerage system etc.) This would enhance the capacity of land for housing.

(viii) Considering the specific requirements of housing and urban infrastructure projects, a land policy would be drawn up. The provision in Land Acquisition Act 1894 to acquire land for private companies, has not been used so far in the interest of the real estate developer. The existing rules, guidelines, government orders would be reviewed and necessary directions with guidelines would be issued.

(ix) The concerned land policy and land-use regulations should provide statutory support for land assembly, land pooling and sharing arrangements.

(x) NGOs and CBOs would be promoted as part of P-P-P housing schemes.

(xi) The Acts relating to the Insurance Sector would be amended to facilitate Mortgage Insurance in the country.

(xii) Title Insurance would be encouraged for housing to prevent fraudulent transactions.

(xiii) Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest (SARFAESI) Act would be made available to all HFCs for speedy foreclosure and faster recovery of NPAs.

(xiv) Fast track Courts would be set up for speedy recovery of housing loans.

(xv) The laws relating to housing cooperatives would be amended if necessary to facilitate housing cooperatives to take up Slum Rehabilitation projects.

(xvi) States will, as part of the Reform Agenda of National Urban Reforms Mission (NURM) will be strongly advised to bring down and rationalize the scale of stamp duty on residential and non-residential properties to about 2-3%.

(xvii) With the introduction of information technology, States would be persuaded to simplify registration procedures in the conveyance of immovable properties. The Indian Registration Act and the rules, circulars, guidelines and government orders issued by the respective State Government would be amended within a time frame. The procedure of the process of registration would be made easy, and for that non-encumbrance certificate and other details would be readily available for any transaction of land.

(xviii) The land revenue records of the States and other governments would be computerized and put on GIS mode within a time frame.

(xix) The present process of issue of stamp papers from Collectorate, Treasuries and Stamp vendors would be modified to pay the stamp duty directly in the proper head of account of the State Govt. in the specified bank.

(xx) Property Tax reforms (such as Unit Area Method) would be undertaken.

(xxi) The States would be persuaded to enact Apartment Ownership Legislations. In this regard, Model Acts and Rules & Regulations may be framed by the Union Government.

(xxii) In areas where several Acts have concurrent jurisdiction, the provision of Town & Country Planning Act and Development Act (or any other similar Act) only would operate. The concerned State Governments would amend respective provisions of Acts accordingly including that the ceiling on agricultural land would not be operative in a Development Area covered by the Town Planning and Development Acts.

(xxiii) Urban renewal of inner cities is becoming imperative. The Municipal laws/building bye-laws and planning regulations may be amended to take care of upgradation and if necessary FAR be relaxed in core areas, so that taller buildings may come freeing adjacent lands. The National Renewal Mission will take up urban renewal in a systematic manner for tackling the obsolete housing and urban infrastructure, high magnitude of slums and the dilapidated structures in the cities so as to convert the towns/cities from a non-conforming to a conforming urban State. Restrictions imposed by CRZ and Rent Control Act would be reviewed.

(xxiv) Clean environment and quality of life in the settlements depend on various legislations and coordination among the regulatory authorities. There is a need to integrate policies regarding air and water pollution, solid waste disposal, use of solar energy, rain water harvesting, energy recovery from wastes and electricity supply in the planning process. Maintenance of internal feeder/ distribution lines free from pollution would be the obligation of the developer/ local bodies. .

(xxv) The notification issued by Ministry of Environment & Forests dated 7.7.2004 and the subsequent draft notification of 15.9.2005 on the requirement of environmental clearance may be reviewed to exclude housing and related projects. There could be provision in the notification that the State/Development Agency or a builder (whosoever recover the external development charges for developing the trunk services) would be made responsible for creation, maintenance and treatment of disposals; and for prevention of pollution which may be caused due to such reasons.

(xxvi) States would be advised to adopt Model Cooperative Housing Act to include Special Chapter 01) Housing Cooperatives in their respective Cooperative Societies Act to bring in uniformity in the functioning of the Cooperative housing societies.

5.4 **Technology support and its transfer**

i. Technology support would continue to playa vital role in providing affordable shelter for the poor.

ii. Bio-mass based housing would be encouraged to increase the present quality of the shelter till it is possible to construct a house of more permanent nature considering the needs and geo-climatic conditions.

iii. The government would take an active lead in promoting and using building materials and components based on agricultural and industrial waste, particularly those based on fly ash, red mud, etc.

iv. Use of wood has already been banned by CPWD. State PWDs need to take similar steps in this direction. Use of bamboo as a wood substitute and as a general building components, would be encouraged.

v. In order to reduce energy consumption and pollution, low energy consuming construction techniques and materials would be encouraged.

vi. Use of prefabricated factory mode building components would also be encouraged, especially for mass housing, so as to achieve speedy, cost effective and better quality construction.

vii. Enforcement of the code for disaster resistant construction technologies and planning would be made mandatory and this would be ensured by all State Governments/UTs.

viii. Through appropriate technological inputs, effectiveness of local building, materials can be enhanced. Innovative building materials construction techniques and energy optimizing features would be made an integral part of curricula in architecture, engineering colleges polytechnics and training institutions.

ix. Transfer of proven cost effective building materials and technologies, from ‘lab to land’, would be intensified through the vast network of institutions.

x. States would include the specifications of new building materials in their schedule of rates and promote them vigorously.

xi. Government would promote use of such innovative and eco-friendly materials through fiscal concessions and tax such materials which are high consumers of energy.

xii. Standardization of various building components, based on local conditions would be emphasized so as to get better quality products at competitive rates.

xiii. Norms for sustainable habitat with regard to Rainwater Harvesting, Energy-efficient buildings, Energy conservation and maintenance of green cover may also be devised and included in the National Building Code.

xiv. High visibility Demonstration houses using cost effective material would be constructed by Government/ Public Sector agencies. Innovation in the area of housing/ construction would be disseminated for wider replicability. A specific number of Government buildings, specially site offices, be earmarked for demonstrating low cost technology.

5.5 Infrastructure

i. There is a need to find ways to achieve the required upgradation of infrastructure of towns and cities and to make these comparable to the needs of the times.

ii. Infrastructure in all human settlements inter-alia encompasses roads for safe and swift commuting, adequate and safe water supply, efficient waste treatment and disposal, convenient public transport, adequate power supply, a clean & healthy environment. Other

Infrastructural amenities consist of educational facilities (School, Colleges, Universities, Research Institutes), recreational facilities (Parks, Public Gardens, Play Grounds, Entertainment Centers), sports fields and stadiums, medical facilities (hospitals and allied health care), connectivity via rail, road, air and waterways and e-Connectivity.

iii. Public-Private-Partnership approach for Infrastructure would be devised for the development of all the areas referred to in (ii) above. Macro-economic strategies would be devised to enable flow of resources including attracting private capital to the infrastructure sector.

iv. The Policy would also address issues to compensate investments made by the private sector through numerous innovative viable alternatives other than direct monetary compensation. A 'Habitat Infrastructure Action Plan' would be developed to prevent and plug losses, leakages and wastages that are existing in the system at various levels.

v. All States would be encouraged to develop 'Habitat Infrastructure Action Plan' for all cities with a population of over 1,00,000.

vi. Financial institutions, State Governments and Central Government would encourage and support 'local' infrastructure development efforts being made by local authorities as well as by the private sector .for the development of all areas referred to in (ii) above.

vii. In order to attract private capital, Central Government would take steps to declare that infrastructure areas referred to in (ii) above be treated at par with infrastructure status under the Income Tax Act.

viii. Steps would be taken. to attract FDI as per Govt. of India guidelines into infrastructure development at the local town and city levels.

ix. Steps would be taken to rationalize the Property tax and improve its collection. Steps will also be taken to rationalize and improve collection of other revenue instruments at local level and improve the fiscal management of the local bodies/ parastatals in order to fund infrastructure.

x. Urban transport has a strong impact on urban growth. An optimum mix of reliable and eco-friendly public transport systems would be planned to meet the city's requirement.

5.6 Sustainability concerns

i. No settlement can support unbridled consumption of natural resources, such as land, water, forest cover and energy. Norms for consumption of these resources and also conservation techniques would be specified and enforced.

ii. Sustainable strategies would be devised for the maintenance of housing and infrastructure services.

iii. Settlements would be planned in a manner which minimize energy consumption in transportation, power supply, water supply and other services.

iv. The urban services are inter-tuned with ecological and environmental growth of housing and settlements. Development strategy and regulatory measures would be combined to direct planned urban growth and services.

v. Growth of a city beyond its capacity imposes unbearable strain on its services. City planners would lay down norms for development of urban sprawls and satellite townships.

vi. Decongestion and decentralization of metro and mega cities is urgently needed through development of regional planning linked with fast transport corridors for balanced growth. .

vii. Model bye-laws would be drawn up for use of renewable energy source particularly solar water heating systems in residential and commercial buildings.

viii. Poverty and unemployment are detrimental to healthy growth of any settlement. States Government and local authorities need to vigorously implement poverty alleviation and employment generating programmes. Development of income augmenting activities, expansion of the services sector and imparting of training and skill upgradation would be taken up.

5.7 Employment issues in the housing sector

i. The construction workers also need to be trained to keep up with the technological advancement in this sector.

ii. The construction industry is the biggest employer of women workers and is perhaps their biggest exploiter in terms of disparity in wages. The solution lies in skill upgradation and induction of women at supervisory levels and also encouraging women as contractors. Public agencies would take a lead in this. All training institutions must enroll women on a preferential basis.

iii. Adequate provisions for the safety and health of women engaged in construction activities which are hazardous in nature would be made by the authorities executing the project.

iv. Support services like creches and temporary accommodation would be provided by the implementing authority at the construction site.

v. A training and education cess would be levied on all construction projects except those being done on a self help basis. This amount could be spent on training and imparting new skills to the construction workers.

vi. Concerned states would be advised to provide decentralized training both for men and women. Several schemes of Government for imparting training and skill enhancement could be converged to integrate efforts in this direction.

5.8 **Slum improvement and upgradation** .

i. Slum improvement programmes for upgrading the services, amenities, hygiene and environment would be taken up.

ii. Slum reconstruction programmes for creating a better environment would be encouraged by schemes with cross subsidization. These would be based on the basis of audit of slum areas covering health status, education, sanitation, environment, and employment status and income generation.

iii. Land sharing and pooling arrangements would be resorted to in order to facilitate development of land and improvement of basic amenities in slums.

iv. Transferable development rights and additional FAR would be released as an incentive for providing shelter to the poor. The private sector, community based organizations (CBOs), non-governmental organizations (NGOs) and Self Help Groups (SHGs) would be involved in such activities.

v. The land or shelter provided to the poor / slum dweller would as far as possible be non-transferable for a period of ten years.

vi. 'Land as a resource' would be used while taking up slum rehabilitation.

vii. Specific projects would be taken up based on poverty alleviation strategies of National Urban Renewal Mission (NURM).

viii. Income generating activities in slums have a direct bearing on housing and other environment issues. The various development programmes would be converged to cover the target group completely.

ix. The process for integrating the housing scheme of VAMBAY (Valmiki Ambedkar Awas Yojana) and the environmental scheme of NSDP (National Slum Development Programme) would be completed with the implementation of Basic

Series to the Urban Poor for Mission Cities and Integrated Housing & Slum Development Programme for Non-Mission cities. Hurdles faced by the states and implementing agencies in any integrated scheme would be removed. Issues like present unit cost, area norms and subsidy would be reviewed and further rationalized, if necessary.

x. Formation of multi-purpose cooperative societies of urban poor and slum dwellers would be encouraged across the country for providing better housing and environment to improve the quality of life as well as for undertaking multifarious activities for the economic and social development.

6. ACTION PLAN / FOLLOW UP

(i) The Central Government will support the States to prepare a State level Urban Housing and Habitat Policy and also specific action plans. This would cover preparation of Model Acts, legal & regulatory reforms, fiscal concessions, financial sector reforms and innovations in the area of resource mobilization, etc.

(ii) In order to augment sustainable housing stock with related infrastructure including water, drainage and sanitation facilities, the action plans and programmes will focus upon flow of funds for housing, including various cost effective shelter options, promotion of a planned and balanced regional growth, creation of employment, protection of weaker sections and vulnerable groups, promotion of partnerships, conservation of urban environment and development of MIS.

(iii) States will prepare & SUHHAP (State Urban Housing and Habitat Action Plan) giving a road map of actions pertaining to institutional, legal, regulatory and financial initiatives in relation to (i) supply of land (ii) modification of Acts/ Bye-laws (iii) technology promotion (iv) infrastructure provision (v) slum improvement, etc.

(iv) SUHHAP would also cover actions to motivate, guide and encourage participatory approach including private sector, NGOs, CBOs, State parastatals and ULBs for institutionalizing community sector and private sector resources along with the Government resources.

(v) A Monitoring framework at state revel would be set up to periodically review the implementation of SUHHAP and SUHHAP.

(vi) At the local level, cities will prepare ‘City Development Plans’ which will take note of the deficiencies in housing and urban infrastructure and indicate a plan and budget for their improvement.

(vii) A High Level Monitoring Committee at Central Government level would be set up to periodically review the implementation of National Urban Housing & Habitat Policy 2005 and suggest any amendments/changes as may be necessary.

7. The Ultimate Goal

The ultimate goal of this Policy is to ensure sustainable development of urban human settlements covering shelter and environment and urban infrastructure to enable a better quality of life to all its citizens through involvement of all stakeholders. The policy also lays a special emphasis on provision of social housing for the EWS/LIG so that they are fully integrated in the urban landscape.

[I] United Nations: World Urbanisation Prospects, the 1999 Revision

1. NSSO- Different Rounds

3. Economic Survey 2003-04

4. Projections made by Human Settlement Management Institute, New Delhi

I HUDCO sponsored study on "Impact of Investment ill the Housing Sector on DGP .and Employment in the Indian Economy", 11M Ahmedabad, July 2000

2 National Housing & Habitat Policy 1998

3 TCPO estimate for 2001

4 Planning Commission - 10th Plan Documents Report of the Working Group on Urban Housing and urban Poverty with focus on Slums for Tent Five Year Plan, Govt. of India, Ministry of Urban Development & Poverty Alleviation - December 2001

[1] TCPO estimates for 2001

[2] Census of India; 2001 (Annexure-IV)

[I] Census of India 2001

ANNEXURE-1

POPULATION PROJECTIONS FOR 2001-2025

(In Million)

Year	Total	Urban	Rural
2001	1027.30	285.30 (27.75%)	742.00 (72.25%)
2005	1091.78	316.33 (28.97%)	781.70 (71.03%)
2010	1178.52	360.38 (30.58%)	834.32 (69.42%)
2015	1272.16	410.57 (32.27%)	890.48 (67.63%)
2020	1373.23	467.74 (34.06%)	. 950.34 (65.94%)
2025	1482.34	532.87 (35.95%)	1014.41 (64.05%)

Source: *Projections made by Human Settlement Management Institute, New Delhi, using semi log regression analysis based on historical growth rate* of *Census Population figure from 1901 - 2001*

ANNEXURE-II

Average Annual Rate of Change of Urban and Rural Population (2000 - 2030) in percentage in India

Year	Urban	Rural
2000 - 05	2.81%	0.82%
2005 -10	2.73%	0.43%
2010 - 15	2.70%	0.12%
2015 - 20	2.74%	(-) 0.09%
2020 - 25	2.52%	(-) 0.22%
2025 - 30 .	2.25%	(-) 0.4P%

Source: United Nations (1999): *World Urbanization prospects, The* 1999 *Revision*

ANNEXURE - III

Sectoral Employment Growth Projection

(Employment in Million)

Sector	**1999-2000**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**
Agriculture (0.02%)	190.94	190.98	191.02	191.05	191.09	191.13	131.17	191.21
(%Share)	*56.70*	*56.08*	55.46	54.83	*54.20*	53.57	52.94	52.31
Industry (2.84%)	59.15	60.83	62.56	64.33	66.16	68.04	69.97	71.96
(%Share)	17.57	17.86	18.16	18.46	18.77	*19.07*	19.38	19.69
Services (2.41%)	86.65	88.74	90.88	93.07	95.31	97.61	99.96	102.37
(% Share)	25.73	*26.06*	26.38	26.71	*27.03*	27.36	27.68	*28.01*
Total	336.74	340.55	344.45	348.46	352.56	356.78	361.10	365.54
	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Sector	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**
Agriculture(0.02%)	191.25	191.28	191.32	1.91.36	191.40	191.44	191.48	191.51
(% Share)	51.68	*51.04*	*50.41*	49.78	49.14	48.51	47.87	47.24
Industry (2.84%)	74.00	76.11	78.27	80.49	82.78	85.13	87.54	90.03
(% Share)	*20.00*	*20.31*	*20.62*	*20.94*	21.25	21.57	21.89	22.21
Services (2.41%)	104.84	107.36	109.95	112.60	115.31	118.09	120.94	123.85
(% Share)	28.33	28.65	28.97	29.29	29.61	29.92	*30.24*	*30.55*
Total	370.08	374.75	379.54	384.45	389.49	394.65	399.96	405.40
	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Sector	**2015**	**2016**	**2017**	**2018**	**2019 -**	**2020**	**2021**	**2022**
Agriculture (0.02%)	191.55	191.59	191.63	191. 67	191.71	191.74	191.78	191.82
(% Share)	46.61	45.98	45.35	44.72	*44.09*	43.47	42.84	42.22
Industry (2.84%)	92.59	95.22	97.92	100.70	103.56	106.50	109.53	112.64
% Share)	22.53	22.85 -	23.17	*23.50*	23.82	24.14	24.47	24.79
Services (2.41%)	126.84	129.89	133.02	136.23	139.51	142.88	146.32	149.85
(%Share)	*30.86*	31.17	31.48	31.79	*32.09*	32.39	32.69	32.98
Total	410.98	416.70	422.57	428.60	434.78	441.12	447.63	454.30
	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Sector	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**
Agriculture(O.02%)	191.86	191.90	191.94	191.97	192.01	192.05	192.09	192.13
(% S:lare)	41.60	40.99	40.37	39.76	39.16	38.55	37.95	37.35
Industry (2.84%)	115.84	119.13	122.51	125.99	129.57	133.25	137.03	140.92
(% Share)	25.12	25.44	25.77	26.10	26.42	26.75	27.07	27:40
Services (2.41%)	153.46	157.15	160.94	164.82	168.79	172.86	...177.03	181.29
(% Share)	33.28	33.57	33.86	34.14	34.42	*34.70*	34.98	35.25
Total	461.15	468.18	475.39	482.78	490.37	498.16	506.15	514.34
	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

(OFigures in Brackets indicate sector-wise average annual growth rate (in percentages) for the period 1993-94 to 1999-2000

Source: Projections for the period 2000-2030 are made by Human Settlement Management Institute, New Delhi based on the sector-wise average annual growth rate for 1993-2000, reported in Economic Survey 2003-04.

ANNEXURE-IV

SHARE OF URBAN POPULATION IN 2001

*Class/*Category	Population	No. of Towns/ UAs*	Urban Population (Percentage)
I	> 1 lakh	393	68.67
II	50,000 to 1 lakh	401	9.67
III	20,000 - 50,000	1151	12.23
IV	10,000 to 20,000	1344	6.84
V	5,000 to 10,000	888	2.36
VI	< 5,000	191	0.23
	All	**4368**	**100**

Source: Paper 2 : *Census of India 2001*
**UAs cover more than one Census Towns. Therefore, the total number* 4368 v*aries from the total number of Towns which is 5161* as *per Census 2001.*