Chapter 6
Market Supply for Housing and Real Property
6.1 Introduction

For anyone in the world, housing remains an aspiration that fulfils social, personal, intellectual and emotional needs. It is no different for Indians. However going by the data available in the First to Seventh Five Year Plans, housing, as a centrally planned policy is not evident. Unlike agriculture, industry, trade and commerce, which formed specific thrust areas of all the plans, housing remained a predominantly private sector initiative.

Housing and real estate are subject in the State list; this could be the reason for the Central Government to miss looking at the mounting housing shortage in the country.

In the 1970's the World Bank studies on the chronic urban housing shortages in developing countries in general and India in particular; came to light due to their lending programmes for urban development. World Bank studies in this area are of the most exhaustive and detailed in nature.

Housing Availability in India

Ancient Era (2500 B.C to 1000 B.C)

The Mohenjo Daro, Harappan and the recently discovered sites at Dholavira, Ganweriwala, Lothal in Gujarat archaeological sites, indicated to highly planned settlements with adequate utilities for the city's populace and easy intra-city movement. House designs were equitable, square and with a provision to expand (upto 2 storeys). (Refer annexure 5.1).

Medieval Era (600 A.D to 1700 A.D)

Rigid codes due to caste and class systems changed the design of ancient cities. For instance in the Maurya, Gupta and other periods the privileged and higher castes lived in well-designed, airy and spacious quarters away and apart from the lower caste sections. The latter lived in unhygienic, crowded clusters far away from the 'decent' areas. During this time, a distinct area namely the 'market place' also emerged where people congregated to transact business and/or exchange information.
The Mughal Era (1450 A.D to 1857 A.D)

Plush, architecturally unique (due to Persian influence) with splendid garden layouts and intricate carvings characterised the living quarters of the emperors and their noblemen.

The general populace was further divided (class, caste) into a separate section for the followers of Islam, who preferred to settle around their place of worship.

The British Era (1857 A.D. to 1947 A.D)

During the British Era, the existing settlement layouts remained unchanged as the British preferred to remain detached from the native population. Also provided were the recreation areas called 'clubs', tennis, and cricket and golf grounds. The establishment of 'cantonments' became a preferred style of settlements in Lucknow, Bangalore, Delhi, Agra, Pune, Gwalior. Native converts to Christianity remained close to cantonment areas where churches were established.

Demand for housing has been 'convenience driven'. It has never taken the garb of a commercial enterprise wherein supply anticipated the demand. This is a typical post 1980s phenomenon similar to the anticipated supply of capital and consumer goods produced by large scale industries and that created a market by anticipating demand.

6.1.1 National Policies & Plans for Developing Supply of Real Property

The Indian real estate market is still in its infancy, largely unorganised, local and dominated by a large number of small players. As compared to the other more developed Asian and Western markets India is characterized by smaller size, lower availability of good quality space, legal encumbrances and higher prices.

Restrictive legislations and lack of transparency in transactions are other main impediments to the growth of this sector. Limited investment from organised sector has also hindered the growth of this sector.

6.1.2 Human Settlements and supply of real estate

Human settlements follow definite patterns geographical, and socio-economic, which dictate land use. Human settlements are primarily the geographical or spatial pattern of settlement. Human settlements have many dimensions such as diversity in the quality of
buildings; and a great many forces and movements shape their nature. Early settlements followed more organic patterns as compared to modern ones.

As the residential population grows, the settlement requires undergo a change. Also emerge; changed demographic patterns and subsequently altered residential patterns. The demand for infrastructure, such as housing, energy, water, transport, waste disposal also increases. Growth of infrastructure results to keep pace with demand and results in land use changes and an impact on the environment.

Choice of low or high density of housing arises out of trade-off choices between demand and impact on environment. As pointed out by Charles Leven\(^1\) (1978) the metropolitans usually come into being and grow as a result of economic, demographic and social values.

The resultant physical environment in terms of residential, commercial, industrial and other properties is decided on the basis of the dynamics of settlers. For instance, transportation is organized around the city's "ring roads", with heavy out bound, transit traffic moving without having to enter the city. Dwellings around these ring roads are then allocated for use. The human settlement grows in concentric circles forming inner, middle and outer ring areas.

Typically, three indicators are most important to predict the supply of real estate for the changed needs of the populace. 1) Population distribution 2) Residential density 3) Changes in urban land use – i.e. the proportion of new dwellings added to the fringe areas.

Given below is a graph that indicates the residential growth of the New South Wales Metropolitan Region, around new ring roads. From the year 1993 to 2000-01, the graph shows a levelled off growth in the latter year, as compared to 1993-94, implying that the settlements have reached their full capacity.

\(^1\) Charles L Leven, The Mature Metropolis, D.C. Heath & Company, 1978, Chapter 1, Page 3-20
6.1.3 Supply determinants

Unlike for housing demand, the influence of macro determinants is more pervasive in the housing supply processes. It depends on factors like (1) nature of construction and developer industry, (2) the buoyancy of the urban economy, (3) housing policies and local policies affecting the supply of serviced land. The situation becomes more complex as housing supply is affected by the interplay of the number of actions and a series of interrelated activities in housing delivery.

According to Meera and Dinesh\(^2\) (1989), renowned housing experts like Turner & Baross and Martinez have offered the ‘activity actor matrix’ approach to understand housing supply. For e.g. the major actor groups active in housing supply are state or public sector, private commercial enterprise and the petty landlord. The public sector refers to agencies through a variety of schemes and programmes engaged in housing supply for e.g. MHADA, DDA, AWAS BANDHU, GHC etc.

Distinct from this group, (which produces housing for sale or renting,) are the ‘community groups or individual households’ who are both producers as well as ultimate users. They are driven by utility maximisation rather than profits.

6.2 Supply of Housing and Real Property

6.2.1 Process of Housing Supply

The major components relevant in any process of Housing Supply revolve around 1) Land – design and promotion 2) Shelter – resource mobilisation 3) Utilities – construction or execution 4) Environment – occupation and maintenance.

Different actor groups are engaged in the above activities in different degrees. A given system of production is thus a reflection of different actions in these four spheres.

6.3 Dominant Housing Supply Processes

These can be divided into two major types based on their dominant characteristics.

Table 6.1: Formal and Informal Sector Housing characteristics

<table>
<thead>
<tr>
<th>Formal Sector</th>
<th>Informal Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public agencies</td>
<td>Individuals</td>
</tr>
<tr>
<td>Designed and promoted</td>
<td>-</td>
</tr>
<tr>
<td>Resources mobilised from formal sources</td>
<td>-</td>
</tr>
<tr>
<td>Provides for occupation and maintenance</td>
<td>Individuals</td>
</tr>
</tbody>
</table>

Construct: M.N. Shah

Formal housing is defined by Johnstone (1985) as "that which is constructed through established institutions and conventions and meets, indeed relies upon, the existence of legally based building and planning regulations and property laws."

Informal housing is referred to as housing, which is developed through some form of illegal and unplanned activities and does not conform to statutory modern (often Western) standards of construction.

The major distinction within the informal sector may be made in terms of methods used to gain access to land for e.g. tenure and development of land housing development on illegally appropriated land, is termed squatter; land developed on legally owned land or rented land but without permission from the local authorities, is referred to as ‘quasi-legal’.
Private sector housing can be divided into 2 main groups (1) Traditional Housing: Housing dating back to the pre-independence era in the form of ‘chawls’, ‘wadas’, ‘pols’ (2) Modern housing on the other hand is typified by a post-independence, western designed housing. These may be self-built or through a private enterprise (developer).

6.3.1 Macro Supply Determinants of Real Estate

Factors that tend to affect the Supply side of the real estate market include the following:

6.3.2 Government controls and financial policies

The Government’s monetary policy can have a substantial impact on the real estate market. The Reserve Bank of India announces its ‘Prime Lending Rate’ to commercial banks. That rate has a direct impact on the interest rates the banks charge to borrowers. This impacts people’s ability to buy homes. Government agencies such as HUDCO, NHB also affect the amount of money available to property lenders for mortgages, as these are ‘refinance’ agencies.

6.3.3 Value of land is also affected by policies and regulations

Property tax is one of the primary sources of revenue for local governments. Taxation policies can have either positive or negative effects. High taxes may deter investors, while tax incentives attract new buyers to purchase. Also they help attract new business and industries into the city.

Local governments influence supply through land-use controls, building codes and zoning ordinances, and control the use of land. Land reservations to such amenities as forest preserves; schools and parks help improve the real estate market.

6.3.4 Labour Force and Construction Costs

A shortage or an increase in cost of skilled labour or building materials can decrease the amount of new construction. High transfer costs (such as taxes) and construction development charges can also discourage development. Increased construction costs may be passed along to the buyers and tenants in the form of higher prices and increased rents, which can further shrink market demand. The new service tax at 10% levied on construction in budget 2005-06 is expected to affect construction costs.
6.4 Actors/Players in Real Estate Development and Delivery

Having described the macro level forces that affect the supply of real estate, we can now turn to understanding which entities help in producing and delivering real estate to its consumers.

6.4.1 Government Schemes

It is seen that in many countries, national governments are active in the provision of shelter to its weaker sections. It is more so in the case of developing countries wherein governments actively pursue construction and provision of economically weaker section housing. Popular schemes known in India are the Indira Awaas Yojana, the Valmiki Ambedkar Awaas Yojana, and Slum Rehabilitation Schemes etc.

6.4.2 Government Agencies

Governments also engage themselves in ‘facilitating’ real estate development. They do so in the form of creating Special Purpose Vehicles, forming bodies (MHADA, HUDCO, DDA, HUDA, BTF etc), which actively participate in areas such as acquiring ‘saleable land’, providing sites and services and in some cases providing urban infrastructure.

6.4.3 Mortgage and Housing Finance Companies

This forms the secondary mortgage market. These institutions are by far the most important facilitators as they are in a position to affect the ‘level of activity’ in the marketplace from both ends- supply (through project finance) and demand (through individual housing loans). These institutions actively participate in raising funds for development and infrastructure purposes through bonds, underwriting etc.

Commercial banks offer house finance in the form of Straight, Amortised or Adjustable Rate Mortgages (ARMs) methods to facilitate purchase.

6.4.4 Developers

These entities exist as private firms or public limited corporations. They actively engage in the purchase of land (private or de-reserved) and its subsequently develop into any of the forms of real estate viz. residential, office and commercial, farm house, technology
parks etc.

In India, growing trend is also seen in the initiation of the ‘Public-Private’ Partnership in housing delivery and creation of urban infrastructure. For e.g. The West Bengal Housing Board and the Gujarat Ambuja Cement Group together will develop a residential/commercial property. It is designed to cater to various income groups by building ‘low density high rise’ buildings.

However the real estate developer community is very local in nature and none of the entities are truly national in their presence. Current players lack financial strength to invest in large-scale development projects.

6.4.5 Others

There are many other entities less visible but highly active in the real estate market, these are the (a) Brokers (b) Property Managers (c) Advocates (d) Property Surveyors and (e) Valuers. All of these transact property dealings for consideration or facilitate the transaction.

Other significant development in housing and real property development has taken place at the grass root level through reforms introduced and implemented. Some of these are listed below:

6.5 Governmental Reforms

6.5.1 Legislative Issues

Much of the over 100 laws governing various aspects of real estate dates back to the 19th century. Major amendments to existing laws are required to make them relevant to modern day requirements. The Central laws governing real estate include:

a) Indian Contract Act, 1872

This legislation specifies when a party can be said to have the capacity to contract. All the requirements of a valid contract, i.e. consideration, intention to contract and validity under the law of the land must be satisfied.

3 http://planningcommission.nic.in/plans/planrel/fiveyr/10th/volume2-Page 8
b) **Transfer of Property Act, 1882**

This lays down the general principles of realty, like part-performance and has provisions for dealing with property through sale, exchange, mortgage, lease, lien and gift.

c) **Registration Act, 1908**

The purpose of this Act is the conservation of evidence, assurances, title, publication of documents and prevention of fraud. It details the formalities for registering an instrument.

d) **Special Relief Act, 1963**

This Act is only to enforce individual civil rights. A person dispossessed of immovable property without his consent (other than in due course of law) can recover possession by a suit filed within six months from the date of dispossession. The Court could also grant a permanent/mandatory injunction preventing the breach of such contract and award damages.

e) **Urban Land (Ceiling and Regulation) Act (ULCRA), 1976**

This legislation fixed a ceiling on the vacant urban land that a 'person' in urban agglomerations can acquire and hold. A person is defined to include an individual, a family, a firm, a company, or an association or body of individuals, whether incorporated or not. The Act provides for appropriate documents to show that the provisions of this Act are not attracted or should be produced to the Registering officer before registering instruments compulsorily registrable under the Registration Act.

f) **Land Acquisition Act, 1894**

This Act authorizes governments to acquire land for public purposes such as planned development, provisions for town or rural planning, provision for residential purpose to the poor or landless and for carrying out any education, housing or health scheme of the Government. In its present form, the Act hinders speedy acquisition of land at reasonable prices, resulting in cost overruns.

g) **The Indian Evidence Act, 1872**

Under the Act, whenever the status of any person as the owner of a piece of immovable property of which he is shown to be in possession is questioned, the burden of proving
that he is not the owner lies on the person who asserts that he is not the owner.

6.6 Legal Reforms

6.6.1 State Laws Governing Real Estate

While each state has its own set of laws, which govern planned development, rules for construction and floor-area-ratio (FAR) or floor space-index (FSI) and formation of societies.

a) Rent Control Act

Rent control by the government initially came as a temporary measure to protect the exploitation of tenants by landlords after the Second World War. However these rent control acts became almost a permanent feature. Tenants occupying properties since 1947 continue to pay rents fixed then, regardless of inflation and the realty boom. Some of the adverse impacts of the Rent Control Act are:

- Negative effect on investment in housing for rental purposes.
- Withdrawal of existing housing stock from the rental market.
- Accelerated deterioration of the physical condition of the housing stock.
- Stagnation of municipal property tax revenue, as it is based on the rent.
- Resultant deterioration in the provision of civic services.
- Increase in litigation between landlords and tenants.

The Rent Control Act, in fact, is the single most important reason for the proliferation of slums in India by creating a serious shortage of affordable housing for the low income families. Low and middle-income families typically live in rented accommodation all over the world and the need for such accommodation in our cities will only increase as the economy modernizes, labour mobility increases and urbanization takes place.

6.6.2 Land Market Issues

It is estimated that removing land market barriers can contribute approximately an additional 1 per cent to India’s GDP growth rate.
a) Titles and Records

In India, the State does not certify a title to housing or land property. The revenue records are not documents of title, and ownership is established only by the sequence of earlier transfers. Thus, the fundamental question of title has often led to enormous litigation.

An examination of the provisions of these Acts reveals a number of inadequacies. Most of the sale transactions are done through the power of attorney route to evade transaction costs like registration, stamp duties, property tax etc. The system, as it exists, imposes a responsibility on the part of the purchaser with regard to the inspection of the title. The result is tenuous titles to land and non-transparency in property transactions, thereby hampering large-scale real estate development.

There is an urgent need to ensure compulsory registration of land deeds and also to computerize such records so as to create a database. Through online documentation of land records, hyper links with court registries of the district or the State can be developed, so that the unwary buyer can get immediate information of any pending litigations.

b) Land Reforms and Conversion of Rural Land to Urban Use

The present restrictions and the rigid and time-consuming process of converting agricultural holdings into non-agricultural ones are the major obstructions to the real estate development.

Conversion of rural land at market prices should be completely de-controlled and left to the market. It is desirable that the curbs on the expansion of urban limits into surrounding village areas should be removed.

6.7 Property Taxation Policy Reform

6.7.1 Stamp Duty

Stamp duty needs to be paid on all documents, which are registered, and the rate varies from state to state. India has perhaps one of the highest levels of stamp duty. Some states even have double stamp incidence, first on land and then on its development. In contrast the maximum rate levied in most developed markets whether in Singapore or Europe is in the range of only 1-2 per cent.
Another fallout of high stamp duty rates is the understatement of the proceeds of a sale. There is considerable financial loss to the exchequer on account of understatement of sale proceeds, non-registration & consequent non-payment of stamp duty and avoidance of capital gains tax.

6.8 Environmental Policies

Among other sectors like manufacturing, mining, irrigation, power and transport, the construction sector attracts considerable attention with respect to environmental compliance.

The major areas in which environmental norms and regulations are binding are (1) Noise (construction activity) (2) Air (Flyash Disposal/Dust Control) (3) Water (Solid waste management)

Comprehensive Central legislation functions through institutions like pollution control boards. All states must mandatorily institute State Pollution Control Boards (SPCBs), which in turn work actively with the Directorate of Town and Country Planning, Metropolitan Development Authorities, Public Works Departments, Water Supply and Drainage Board Transport and Meteorology Departments. The major Acts and legislation-governing environment in India are contained in Annexure 6.2

6.9 Housing Finance & Its Role in Developing the Housing Market

The National Housing Policy formulated in 1998 addresses itself to issues pertaining to sustainable development, infrastructure and a strong public-private partnership for shelter delivery. The objective of the policy is to create surpluses in housing stock and facilitate construction of 2 million additional dwelling units every year. It treats housing as a 'priority sector' at par with infrastructure. In pursuance of this it clearly identifies the roles of the Centre, State, local authorities, financial institutions, research and technical institutions. Under this the government initiated a number or schemes like

a. An Action Plan under the ‘Shelter for All’ to construct 7,00,000 additional dwelling units through fiscal and technological support.

b. The setting up of the National Housing Bank (NHB) in 1988 as a subsidiary of

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RBI, monitors the functioning of various Housing Finance Institutions (HFIs), 46 institutions are required with NHB.

c. Allocation by LIC, GIC for direct/indirect finance for housing has been increased.

d. HUDCO has emerged a frontrunner in the disbursal of loans to the economically weaker section and LIC Section. Refer Table 3.

e. In the annual budget 2005-06, Real Estate Mutual Funds have been given an initial nod. This will enable companies to offer dedicated funds for Real Estate development.

f. Government has announced that NRI/PIO/OCBs can now invest in housing and Real Estate development especially in development of urban infrastructure.

Table 6.2 : Amount disbursed by government agencies for the funding of housing to weaker sections.

<table>
<thead>
<tr>
<th>Year</th>
<th>Sanction Amt (Rs) crores</th>
<th>Dwelling units</th>
<th>Disbursement Amt (Rs) crores</th>
<th>Dwelling units</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998-99</td>
<td>6,666.67</td>
<td>85.58 lakhs</td>
<td>3,200.68</td>
<td>48 lakhs</td>
</tr>
<tr>
<td>1999-00</td>
<td>1,874</td>
<td>10.65 lakhs</td>
<td>1,400</td>
<td>10 lakhs</td>
</tr>
<tr>
<td>2000-01</td>
<td>1,400</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: http://pib.myiris.com/refer/article.php

Table 6.2 above shows the growth of Housing Finance Institutions loan disbursement. (Amounts in rupees crores)

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and http://www.fitchindia.com/Fridays/CIBIFitchRatingsaug06.pdf

Chapter 6 : Market Supply for Housing and Real Property
Table 6.3: Year-wise Loan Disbursement of HFC and Banking Sector

<table>
<thead>
<tr>
<th>Year</th>
<th>HFCs</th>
<th>Banks</th>
<th>Total</th>
<th>Growth over previous year %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999-2000</td>
<td>9812.03</td>
<td>9911.35</td>
<td>19723.38</td>
<td>-</td>
</tr>
<tr>
<td>2000-2001</td>
<td>12637.85</td>
<td>9787.24</td>
<td>22425.09</td>
<td>13.70</td>
</tr>
<tr>
<td>2001-2002</td>
<td>14614.44</td>
<td>14744.85</td>
<td>29359.29</td>
<td>30.92</td>
</tr>
<tr>
<td>2002-2003</td>
<td>17832.17*</td>
<td>33840.53</td>
<td>51672.7</td>
<td>76.00</td>
</tr>
<tr>
<td>2004-2005</td>
<td>9164.87</td>
<td>2516.63</td>
<td>13225.26</td>
<td>26</td>
</tr>
<tr>
<td>2005-2006</td>
<td>11141.82</td>
<td>7920.72</td>
<td>20641</td>
<td>56</td>
</tr>
</tbody>
</table>


According to NHB, the reasons attributed in this survey were clearly due to the efforts of the marketing strategies used by housing finance companies to accomplish the following. (i) Tapping new segments. (ii) Single clearance of loans upto Rs. 15 lakhs. (iii) Providing personalized services to customers. (iv) Cross selling to networks of other companies. (v) Competitive pricing (lower Interest rate and front end charges) (vi) Tie-ups with reputed builders/developers. (vii) Increase reach by penetration into rural and semi-urban areas. (viii) Referral (ix) Improving credit delivery mechanism and reducing time lag between loan sanction and disbursement. (x) Aggressive marketing and publicity through newspapers, hoardings, websites and other media.

However in India much needs to be done to step up housing finance disbursements. Compared globally India has a very low mortgage to GDP ratio.
Figure 6.2: Country wise rate structures that exist in American, and Asian countries

Following is the country wise rate structures that exist in American, and Asian countries.

Table 6.4: Country-wise tenure for home loans

<table>
<thead>
<tr>
<th>Country</th>
<th>Mortgage Type</th>
<th>Tenure</th>
<th>Interest Rate (%)</th>
<th>Loan to Value ratio</th>
<th>Maximum tenure of loan</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>USA</strong></td>
<td>Fixed rate mortgage</td>
<td>15 years</td>
<td>5.36</td>
<td>80%</td>
<td>30 years</td>
</tr>
<tr>
<td></td>
<td></td>
<td>30 years</td>
<td>6.05</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Floating rate mortgage</td>
<td>1 year</td>
<td>3.79</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CHINA</strong> (BANK OF CHINA)</td>
<td></td>
<td>1-5 years</td>
<td>4.77</td>
<td>80%</td>
<td>30 years</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6-30 years</td>
<td>5.04</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SINGAPORE</strong></td>
<td>Fixed rate mortgage</td>
<td>Year 1</td>
<td>1.61</td>
<td>80%</td>
<td>30-35 years</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Year 2</td>
<td>2.72</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Year 3</td>
<td>2.89</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Thereafter</td>
<td>3.75</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Floating rate mortgage</td>
<td>Year 1</td>
<td>1.59</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Year 2</td>
<td>2.38</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Year 3</td>
<td>2.92</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Thereafter</td>
<td>3.40</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: USA Interest Rates: Average of rates offered by thrifts, commercial banks and mortgage lending companies for the week ended 16th October 2003 as published in

Singapore Interest Rates: Average of the mortgage rates offered by HSBC, Hong Leong, Singapore Finance, NTUC, OCBC, DBS, Maybank and United Overseas Bank Group in October 2003.

Table 6.5 : CANADA

<table>
<thead>
<tr>
<th>Mortgage Type</th>
<th>Option</th>
<th>Tenure</th>
<th>Interest Rate (%)*</th>
<th>Loan to Value ratio</th>
<th>Maximum tenure of loan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed rate mortgage</td>
<td>Closed Term</td>
<td>Closed 6 months</td>
<td>5.45</td>
<td>75% for conventional mortgage</td>
<td>25 years</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 Year</td>
<td>4.55</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 Years</td>
<td>5.08</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 Years</td>
<td>5.72</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>4 Years</td>
<td>6.22</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 Years</td>
<td>6.43</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>7 Years</td>
<td>7.53</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>10 Years</td>
<td>7.95</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Variable rate mortgage</td>
<td>Open Term</td>
<td>Open 6 months</td>
<td>6.52</td>
<td>1 Year</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 Year</td>
<td>6.55</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Average of the mortgage rates offered by Royal Bank of Canada, HSBC and Apex Credit Union in October 2003.

As seen in the figures of almost all well developed housing markets such as the USA, and Singapore, show a tendency towards very low to low rates of interest (1.61 percent in Singapore for a 30 yrs. term upto approx. 6 per cent for a 15 year repayment term.) In comparison, India lags in terms of global competitiveness for housing mortgage. In the
year 2005 India's average rate of interest for a 15-year repayment stood at round 8 per cent; way above the countries mentioned above.

6.10 Financial Sector

6.10.1 Credit Restrictions

Financing options are presently skewed in favour of personal loans vis-à-vis developer financing. Most housing finance companies cater mainly to individuals in the higher income group, who have reasonably assured credit worthiness. Only 5-7 per cent of the loans disbursed by these housing finance companies go to builders and institutional developers.

The high default rates among the developers are one of the factors dissuading housing finance companies from investing in this sector.

Lack of a code of conduct for the industry is the other factor that keeps investors away. Even now, developers need to become corporatized to avail funding from financial institutions.

6.10.2 Sources of Funds

Real estate mutual funds, pension funds and insurance companies are the major investors in the housing sector in developed countries. In the United States, pension funds invest 5 per cent of their reserves in real estate equity and mortgages, whereas in India developers' ability to get financial help from these sources is limited. Housing finance companies in India also need to be given access to pension, provident and insurance funds. As the gestation period of real estate projects is more than five years, on an average, it is necessary that developers have access to such long term funding sources.

6.10.3 Real Estate Investment Trusts

In India real estate assets are kept outside the financial market and not leveraged for investment purposes. India must try to make real estate a full-fledged investment option. Real estate as an asset class is vastly different from capital market assets. It is a natural hedge against inflation, experiences low volatility and hence generates positive long-term returns. To begin, with an exclusive stock exchange could be set up under Securities and Exchange Board of India (SEBI) guidelines for trading real estate stocks.
6.10.4 Mortgage market and securitization

Another source of finance for housing companies is development of the secondary mortgage market, which involves conversion of mortgages into tradable, financial or debt instruments. Securitization is a process popular among housing finance companies in the West by which the home loan assets are bundled into securities and sold to the investors. Such securities are called mortgage-backed securities and they help the finance companies convert their loan assets into cash for further loan disbursements, thus maintaining a flow of funds from the lenders. It also helps finance companies reduce their investment risk; the risk of earning a lower rate of return on cash flows for prepayments of home loans.

There are two pre-requisites for secondary mortgage market:

i. Mortgage loan insurance: The risk of default under mortgage loan is covered under an insurance policy for a nominal premium, which protects the risk of non-payment to the lender.

ii. Foreclosure: Housing loans are long-term loans, repayable over a period of 15 to 20 years. Foreclosure laws will enable the lender to call back the entire dues when default of six monthly instalments takes place, irrespective of the fact that the full amount is not due.

At present, banks and housing finance companies find it difficult to sell their housing loan portfolio to institutions if it does not have the remedy of foreclosing an account.

Under these provisions, officers of approved institutions with a legal background shall be appointed as recovery officers of the Tribunal. The foreclosure law can speed up the recovery process considerably. However, the government has to notify the rules and appoint recovery officers before the foreclosure norms can take effect.

6.11 Municipal Laws, Rules & Procedures

6.11.1 Municipal Laws

Most urban and municipal laws and regulations in India date back to more than half a century. There is a need to thoroughly review and modernize them in the light of the latest developments in urban infrastructure, transport, pollution control etc.
6.11.2 Zoning Rules

In an ever-changing urban scene, the zoning regulations are in a constant state of flux with no systemic reviews or updation-taking place. There is need to establish a regulatory commission to continuously review the zone shifts and activity shifts as demographic patterns change in urban areas.

The failure of the Master Plan for Delhi is a case in point. The most important cause of this is the poor and inadequate implementation of the Plan during the first 20 years of its existence from 1961 to 1981. Most of the provisions made for various facilities in the Plan were not realized on the ground.

6.12 Encouragement To Construction Sector As An Engine Of Growth - Global Experience

For decades, all across the world, sanguine governments whether in the developed world (USA, UK) or the developing (India, China) are using Real Estate development as one of the prime engines to drive economic growth.

In fact using Real Estate development to drive economic growth was extensively used first in U.S.A where the formal development of real estate as a subject of study and practice is almost a decade old. To most of the world, it is ubiquitously termed as “The American Dream”\(^6\). This is typified by a single-family, owner-occupied dwelling unit depicting security and success.

Interest in homeownership among Americans is encouraged and supported by a variety of federal programmes and policies. Generous tax benefits, easy finance schemes to include more segments of consumers.

China began serious real estate reform since the 1980s leading to increase in people owning houses. The Thai government under Thaksin’s premiership has a time-bound programme to provide housing to all Thai citizens.

The Singapore Government has a special ministry for public and private housing supply and monitors purchase and rent indices.

\(^6\) Stephen B. Ashley, Chain Executive Committee, Research Institute for Housing America, Report 1998 “The Social Benefits and Costs of Homeownership” – A Critical Assessment of the Research,
6.12.1 The Indian Government’s efforts to develop Real Estate as an Engine of growth

It was only from the Eighth Five Year Plan onwards that India committed itself to a systematic development of the real estate sector. However, the real fillip to this came only with the Ninth Five Year Plan and is well established in the Tenth Five Year Plan.

In the year 2001 the housing shortfall in India stood at 200 million houses for a population of 1027 million. Housing drives Real Estate activity while back up utility services like water, sewerage, drainage, roads & transport and social utilities like schools, health & recreation, commercial requirements fulfil cumulative demands.

Thus Real Estate and construction provide an excellent opportunity as a major vehicle for kick-starting the economy. Since 1999, government have announced ‘Housing savvy’ budgets reflected in the increased disbursements of loans by HFI. (from Rs. 5678 crores in 1997-98 to Rs. 12637 crores in 2000-2001 and further to Rs. 14805 crores in 2001-02) In the year 2003-2004 total disbursements increased to Rs. 51,672.7* (Provisional Source: National Housing Bank 2003)

Multiplier Effect: Real Estate sector has substantial backward and forward linkages with crucial and critical sectors of the economy including over 280 associated industries. Construction has accounted for about 40% of the investment in the country during the last 45 years. Construction is one of the largest employers (about 34 million) and contributes nearly 15% to the GDP. For individuals Housing and Real Estate has been emerging as one of the potential investment avenues consequent to the increased tax benefits and fall in interest rates of borrowing as against the diminishing returns and tax benefits from conventional sample instruments.

Also the country’s 38% gross investment is in the area of housing construction. According to the National Building Organisation, every Rs. one million spent on construction generates 3000 mandays of skilled and semi-skilled employment and 1300 days of managerial and technical employment.

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7 V. Suresh, Real Estate Development – Engine for Eco. Growth, 2000
8 McKinsey, Global Institute, NICMAR (Indian Construction Statistics, 1996)
9 V. Suresh, Real Estate Development – Engine for Eco. Growth, 2000

Chapter 6 : Market Supply for Housing and Real Property
The provision of rental housing also helps to keep Real Estate activity vibrant. Developers build complexes and lease them out to corporates especially the IT and Biotech sectors. This model could be extended to other types of Real Estate such as Special Export Zones (SEZs), convention centres, multiplexes, industrial estates etc.

According to studies conducted by the CII and Construction Federation of India, a moderate growth in the construction industry can impact positively industries such as cement, steel, mining, paints, chemicals, bricks, aluminium, glass, plastics and timber.

Real Estate is a need satisfier. Shelter is a basic necessity. Alongwith housing needs emanate the needs for the satisfaction of other utilities such as education, leisure, trade and transportation. The need for these creates further ripple effect.

6.13 Global Policies - Case Studies Of Rise In Housing Supply In Select Countries

All over the world, developing as well as developed nations use the powerful medium of large scale industrial development (oil, power, irrigation, steel, defence) as well as housing (multi-unit housing) and infrastructure (roads, ports, airports, telecom) to propel their economies into the mode of rapid development. (Described below are select case studies of select countries around the globe, that have used the above stated models) The disparity in housing standards between developed and developing countries is growing wider. Most Asian countries invest no more than 3% of their GNP in housing, as opposed to 4% in developed countries (taking into account the comparative size of GNP). Translated into conventional statistics most Asian countries construct an average of 2-3 dwelling units per thousand inhabitants per year, whereas developed countries construct about 7.5 units (UN Economic and Social Council, 1973).

Table 6.6 : Real estate sector’s potential for effective capacity building:

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Country</th>
<th>Housing Stock Sq.m per person</th>
<th>Urban Population Percent</th>
<th>GDP per capita Indexed to US=100 in 1996</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>US (1995)</td>
<td>79</td>
<td>76</td>
<td>100</td>
</tr>
<tr>
<td>2</td>
<td>Germany (1995)</td>
<td>39</td>
<td>87</td>
<td>77</td>
</tr>
<tr>
<td>3</td>
<td>Hungary (1997)</td>
<td>38</td>
<td>65</td>
<td>25</td>
</tr>
<tr>
<td>4</td>
<td>Brazil (1998)</td>
<td>36</td>
<td>78</td>
<td>23</td>
</tr>
<tr>
<td>5</td>
<td>Poland (1997)</td>
<td>18</td>
<td>65</td>
<td>22</td>
</tr>
<tr>
<td>6</td>
<td>Russia (1997)</td>
<td>19</td>
<td>76</td>
<td>16</td>
</tr>
<tr>
<td>7</td>
<td>China (1998)</td>
<td>19</td>
<td>30</td>
<td>12</td>
</tr>
<tr>
<td>8</td>
<td>India (1997)</td>
<td>5*</td>
<td>27(3.2% p.a.)</td>
<td>6</td>
</tr>
</tbody>
</table>

Source: McKinsey Global Institute; NICMAR (India Construction Statistics, 1996); The Economist
Unlike housing demand, housing supply responsiveness is highly idiosyncratic between countries and often offers the greatest scope for reform. This responsiveness is strongly influenced by public sector action in the provision of infrastructure, the regulation of the housing sector, and the organisation of the construction industry. The responsiveness of housing supply affects its ability to act as a counter cyclical tool. As pointed out in the World Bank Report\(^{10}\), Chile pulled out of its deep economic recession (1980s) by adopting a flexible housing supply system.

a. **Finland**: In Finland, the Ministry of Environment has been charged with overseeing the type of buildings and housing firms work and live in arranging remedies for existing deficiencies, and guaranteeing adequate conditions in the future. The National Board of Housing created in 1966 was established to organise the state’s administration of housing.

Finland has a long listing of planned housing development. Since the nineteenth century, the first plan to improve the housing of workers began by offering them low interest mortgages. In the 1920s the Housing Corporation Act was passed and the Housing Mortgage Bank established.

After the World War II, subsidized housing under the “Arava Legislation” was instituted. In 1953, the Housing Production Act was passed which became the basis of housing policy that resulted in a tremendous construction surge continuing up to the 1970s. By 1980s, about 75% of all types of residential buildings were constructed. Population movements during the economic boom caused the first half of the 1970s to be period of peak construction, when 70,000 houses were built in a single year. In the 1980s there was a decline in new construction but a boom in restoration, which continued till the 1990s.

The construction boom meant that Finns had been adequately housed and also had more rooms per dwelling. New dwellings had modern conveniences; nearly 3 / 4 rooms had hot water, indoor plumbing, central heating and server connections. About 60% Finnish own their dwellings and spent 18% of their income on housing.

For the low-income government housing allowances, and extended Aid came in a number

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\(^{10}\, \text{World Bank Report: Understanding How the Housing Sector Works, World Bank, Washington DC.} \)
of forms and it helped people in all income brackets. Housing allowances were paid to Low Income Groups and to pensioners living in either their own houses or rental units. Richer Finns were given tax relief if they had mortgages.

b. Singapore: Modern Singapore was founded as a trading post of the British East India Co. in 1819; by virtue of this status its initial success can be attributed to the island’s location, harbour and free port status. Industry in Singapore was of tertiary nature, trade and transhipment, followed by imported rubber and tin processing. After the British established a naval base on the island, Singapore became a key element of the British Commonwealth and thus led to the growth of the naval industry.

In the period from 1965-73, the island witnessed unprecedented growth, following effective implementation of soundly conceived government policies. Industrial growth solved domestic problems of unemployment, population growth and housing. Prices were kept stable and inflation kept low due to government’s conservative fiscal policies. Industrialisation ensured economic progress, the government now looked actively to attract foreign direct investment. In the wake of 1973 oil crisis, Singapore’s growth rate averaged 8.7% from 1973-79. Manufacturing, transportation and communication grew. All this was possible due to the construction boom, which produced a glut of hotels, shopping centres and apartments.

The formation of the Housing and Development Board (HDB) led to systematic growth of Singaporean Real Estate, and even today continues to be a hub of international development. Planned development of the island was critical due to its limited size (636 sq. kms) and high population density (4166 per sq. kms). As pressure of economic growth increased, optimisations of use became more critical.

6.14 Functioning of the HDB

Between 1960-85, the government owned board completed more than 5,00,000 high rise, high density public housing apartments known as housing estates alongwith facilities. From 1974-82, the HDB built and marketed middle-income apartments. In 1988, HDB had built housing for 88% of the Singaporean (2.3 million people). Government encouragement of apartment ownership was both an economic and a “nation building” goal; because individual ownership would ultimately pay for the programme. The board provided estate management services, advanced construction technology. As one of the
country’s major domestic industries, housing construction served as an important economic pump primer or engine of growth.

Homeowners were encouraged to use their Central Provident Fund savings to pay for the apartments. The selling price of the apartment was determined based on economic factors like (1) location of the building, (2) construction cost (3) ability to pay (4) limits of government subsidies. In social terms, factors like (1) provision of conducive community living (2) integrating populations (3) preserving traditional Asian family structures and (4) encouraging social mobility through home upgradation was conceived by HDB.

From an initial capital expenditure of $10 million in 1960 the HDB annual expenditure increased to about $4 billion by 1985. Selling prices, rent rates and maintenance charges were determined by the government, the central government subsidy to the HDB was only 1-2% of its main operating expenditure.

6.15 Urban Renewal Authority

In 1974, the HDB’s Urban Renewal Department was made a statutory board and named Urban Redevelopment Authority. It cleared slums, provided comprehensive development of the city’s central area. It drew up a LT land use plan, implemented through its own ‘Sale of Sites’ programme. It was organised on the basis of public private partnership. Public Sector provided the initiative, expertise and infrastructural services. The Private sector contributed financial resources and entrepreneurship. Between 1967-1983, 166 such parcels of land were turned into 143 projects for Residence, Office, Shopping, Hotels, entertainment and industrial development.

6.16 Jurong Town Corporation

Established in 1968, was responsible for acquiring, developing, managing industrial sites. By 1989, the swampland, uninhabited, tropical mangrove estate was transformed into a vibrant industrial estate with the famous Singapore Science Park, an R&D park and the National University of Singapore were housed here. This estate was designed as a self-contained urban centres. As of 1988, there were 3600 factories employing 2,16,000 workers. It had its own port and cargo facility and the Jurong Marine base that serviced offshore petroleum operation. Between 1965-87, the coastal zone was enlarged by about 50 sq. kms. through reclamation of shallow lagoons and wetlands.
6.17 **New Town Development**

The HDB developed strong public housing based on the new Township Development Model. A neighbourhood size of around 2,00,000 persons was housed in EWS, LIG, HIG to luxury apartments (one room upto 5 room and executive apartment). The whole town a geometrical pattern (Refer Annexure 2 at the end) with neighbourhoods of between 4000 and 6000 dwelling units housing 20000 to 30000 people. The towns had proportionate areas earmarked for facilities, utilities and infrastructure. Refer table 6.8 below:

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Area (ha)</th>
<th>Percentage of total area (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Town centre</td>
<td>30</td>
<td>4.5</td>
</tr>
<tr>
<td>Residential</td>
<td>270*</td>
<td>41.0</td>
</tr>
<tr>
<td>Schools</td>
<td>65</td>
<td>9.8</td>
</tr>
<tr>
<td>Open space</td>
<td>25</td>
<td>3.8</td>
</tr>
<tr>
<td>Sports complex</td>
<td>20</td>
<td>3.0</td>
</tr>
<tr>
<td>Institutions</td>
<td>25</td>
<td>3.8</td>
</tr>
<tr>
<td>Industry</td>
<td>130</td>
<td>19.7</td>
</tr>
<tr>
<td>Roads</td>
<td>80</td>
<td>12.1</td>
</tr>
<tr>
<td>Others</td>
<td>15</td>
<td>2.3</td>
</tr>
<tr>
<td>Total</td>
<td>660</td>
<td>100.00</td>
</tr>
</tbody>
</table>


The success of Singapore real estate development can be attributed to the new-town model developed by HDB. The unique feature of this model is the way in which the various components of land use and environmental inputs have been combined to suit the local situation.

a. **Israel**: The most famous style of housing people is found in Israel in the form of the "Kibbutz and Moshav". The first Kibbutz, Deganya, near the Sea of Galilee was founded in 1910. In 1986, there are 125700 residents of about 267 Kibbutzim\(^{11}\), which practiced agriculture, as well as, industrial operations. Kibbutzim’s are characterised by the

collectivisation of labour and capital, the means of production, consumption and
distribution. Until the 1980s the kibbutzim’s were the most dominant force in Israel was
wielded by them.

The Kibbutzim raised the collective standard of its collective members into solid middle
or upper middle class. A rural village in Israel provided its inhabitants with air-
conditioned housing, well equipped health clinics and a large auditorium with an
Olympic-sized swimming pool.

The Moshav System was characterised by the existence of a family or household- based
production and marketing collective. The Oriental Jews used the Moshav system to move
out of development towns into middle-class life of the Moshavs.

Israel pursued a strong welfare system for its inhabitants funded by the i) Ministry of
Social Welfare, the ii) Histadrut and iii) Diaspora Jewry. These three agencies funded
pensions, insurance, low interest loans, subsidised housing, and rent or mortgage relief to
the new immigrants.

b. China: Chinese urban dwellers as a category, receive subsidies on food, housing,
transportation services. Rents in 1980s were very low, comprising of 5% of the household
income inclusive of water and electricity charges. Between 1950-80, very little new
housing was built, and housing remained in short supply. Entire families resided in one-
room sharing, cooking and toilet facilities. Marriages were sometimes delayed until
housing became available from the municipal office or work unit.

While many urban families had a higher income in the 1980s, they usually could not
translate those incomes into better housing unlike the peasants. After 1985, more
government money was budgeted for housing and piped in cooking gas.

c. USA: The Term ‘Real Estate’ as it is referred to be understood and practised by
the world, finds its roots in the North American ethos. Since the time the Puritan ship
"Mayflower" set sail for the “New Land” from Britain, the United States of America has
been a study in the development of ‘real estate’. The earliest settlements on the East Coast
were New York, Boston and Philadelphia. These settlements are contemporary
‘megapolis’. In fact in the 19th century, New York12 became the major entry point for European immigration. It is estimated that 40% of Americans either came through or are descendents of people who came through Ellis Island in New York’s harbour. In the 20th century, the entire belt from New York, Washington to the Sunbelt in the south is referred to as “Megapolis Region”. This is characterised by the presence of less than 30% of the land used for agricultural purposes in this whole region and are made up of 5 conurbations.

Today the US ‘Megapolis’ is the most powerful belt not only financially, politically and educationally prominent but also serves as the “Continental Hinge”13 between US & European economic exchange.

Thus USA, a relatively new country calibrated her land acquisition and use patterns thus providing the most systematic model of urban growth.

USA in the nineteenth century, steadily transformed itself from a land of persecuted puritan British settlers into a ‘Gold Rush’ fortune-seeking prospect with Spanish, German, Irish, Sicilian, Dutch, and Russian immigrants making it their country of domicile.


In the latter part of the nineteenth century and early part of the twentieth century USA developed at a frenetic pace; ushered in by the Trans-American rail road projects14 the express roads and due growth of US industrial production. The rate of growth of immigrants is shown in the table below

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Chapter 6 : Market Supply for Housing and Real Property
Table 6.9: Growth in the number of immigrants to the USA

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
<th>% increase</th>
<th>Total % increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>1870</td>
<td>39,818,449</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>1880</td>
<td>50,155,783</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>1890</td>
<td>62,947,714</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>1900</td>
<td>75,994,575</td>
<td>17</td>
<td><strong>90 (1870 to 1900)</strong></td>
</tr>
</tbody>
</table>

Source: http://faculty.washington.edu/qtaylor/aa_history_public/natimeline_1800-1900.htm

As seen above the total rate of growth of the US population was around a whopping 90 percent, growing almost double in only three decades. This could be attributed to growing industrialisation

d. National Association of Realtors®

In 1915, the largest representative body of real estate property brokers and allied services was formed. This body is today the largest single association representing over 900,000 brokers in the U.S. This body has been credited for creating an organised forum for the real estate players. It was also responsible for perpetuating the “American Dream Model”.

e. The American Dream

From around 1915 onwards, American governments undertook a serious campaign under the catchy slogan of the “American Dream” typified by homeownership and job opportunity. The “American Dream” is accorded serious attention as it holds great socio-economic benefit value. In addition to adding to personal wealth, owning a home also creates employment, increases aggregate consumption and improves community assets.\(^\text{15}\)

Even today every American President personally oversees activities these aspects of the US economy. As a matter of fact one of the most important indicator to monitor US economic outlook remains the “Housing Starts Index” which represents a monthly monitor of the number of new housing projects initiated in US on monthly basis\(^\text{16}\).

The US government believes that home ownership creates the largest opportunity for job creation as compared to any other industry. According to the US Housing and Urban


\(^{16}\) www.firstgov.com
Development Department, 1000 single family homes creates 2448 full-time jobs as per break-up given below: (Ratio: 1: 2.5)

**Table 6.10 : Employment generation in real estate and construction**

<table>
<thead>
<tr>
<th>Type of Job</th>
<th>% of Employment Generated</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-site Construction Work</td>
<td>40%</td>
</tr>
<tr>
<td>Allied Activities</td>
<td>27%</td>
</tr>
<tr>
<td>Household Goods and Services</td>
<td>28%</td>
</tr>
<tr>
<td>Services (Agents, Mortgage etc.)</td>
<td>5%</td>
</tr>
</tbody>
</table>

*Source: US Housing and Urban Development Department, 2004*

The US Census Bureau pegs 21% of the nation’s wealth in home equity. It propounds homeownership as one of the best wealth building strategy for Americans and for local governments too.  

The Washington Research Council’s Policy Brief of the US Urban Land Institute stated that especially in the case of rapidly developing economies, real estate markets propel economic growth because construction activities can account for 9-12% of unemployment in a growing economy but only 2-4% in an economy that is stagnant. In fact, the ULI attributed the basis of the State’s economy on the development of its Real Estate.

As compared to world standards, US reports the highest incidence of homeownership (more that 74%) followed by Europe (around 66%) and Australia (around 60%).

Inspite of this, the US Department of Housing and Urban Development directly works towards and monitors the progress of the most vulnerable segment without homes – The Minority Segments (Hispanics, African-Americans). Extensive research showing the percentage point difference in homeownership between blacks (27.5% - 1994 lower) as compared to whites and the Hispanics (28.8% - 1994 lower) is sought to be brought down by the Bush Administration as a federal initiative. The federal government is working in providing homeownership by aggressively administering measures such as setting up

17 [http://www.whitehouse.gov/infocus/homeownership/](http://www.whitehouse.gov/infocus/homeownership/)
Down Payment Fund for first time buyers, HUD's Section 8 Housing Choice Voucher Programme (use of vouchers for down payment on a used or new home), house counselling (hiring and training bilingual counsellors and literature), initiating in the Selfhelp Homeownership Programme (SHOP) and lastly proposed the 2.4 billion Single Family Affordable Tax Credit (to rehabilitate and develop single family homes).

The USA is far ahead of any other country in developing real estate as the most bankable engine of economic growth.

The real estate industry in selected country case-studies is far ahead on all accounts viz. information, access, legislation, technology, market development, consumer awareness and government and industry involvement and policy implementation. All of the above are backed by the sound and strict educational and legal requirements of the players.

To sum up, we have studied the factors affecting the development of the supply of real estate in a country. Stated below is functional form of the Supply Side function of real estate:

$$S_{RE} = f (L, Lg, PE, DP, BM_T, G, M, Gp, RoI, I, T, \ldots)$$

where

$L = \text{Land}$

$Lg = \text{Legislation}$

$PE = \text{Profit Expectation}$

$DP = \text{Development Plans}$

$BM_T = \text{Building Material Technology}$

$G = \text{Government Agencies}$

$Gp = \text{Government Policies}$

$M = \text{Mortgage Companies}$

$I = \text{Industry}$

$RoI = \text{Rate of Interest}$

$T = \text{Taxation}$

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18 The Washington Research Council's Policy Brief of the US Urban Land Institute
The function purports to depict the various factors that affect housing supply of real estate in an economy. Thus one finds that factors such as availability of Land, Government Policies affecting Housing, rate of interest and personal income taxation and such others directly affect housing supply development.