3.1 Housing Demand: A Brief Review

In housing economics, 'effective housing demand' may be defined, as 'housing need' (explained in the next section) backed by ability and willingness-to-pay. In the traditional microeconomic demand side analysis of commodities, the theory of consumer or household choice represents the starting point. The individual demand curves so derived are aggregated to form the market demand curve. In the models of market adjustment and equilibrium, this market demand curve is combined with market supply curve. The aforesaid economic theory regarding demand and supply applies to housing as well but with certain modifications. The normal demand supply analysis undertaken for major economic activities has not been fully relevant in the housing sector. Most of the industrial and commercial products are homogeneous in nature and they have well documented cost of production. But in the case of housing, there are sharp distinctions. The three special characteristics of the commodity 'housing' – its heterogeneity, durability and spatial fixity – require modifications of the standard consumer choice model.
Housing is a heterogeneous commodity and differs in size, area, number of rooms, etc. Two houses having similar physical characteristics may differ if they are located in different locations. This heterogeneity has complicated the analysis of housing markets.

The other characteristic of the commodity 'housing' is its durability. Durability creates a host of analytical issues on both the demand and supply sides of the housing market. On the demand side, the explicit purchases are not equal to consumption since there may be a period of lag between purchase of a house and its consumption. Moreover, the purchase of house is different from the purchase of a standard non-durable commodity in the sense that it is both an investment choice and a consumption choice. On the supply side, durability has an impact since most of the housing services are produced using the existing stock rather than housing stock constructed during that period.

The third special characteristic of housing is that it is immovable or spatially fixed. Unlike other goods purchased by consumers, a housing unit cannot be moved from one place to another. When a household purchases a housing unit it also buys a location and in turn accessibility to other locations, a neighbourhood and a local
government\textsuperscript{1}. This feature has a major impact on the demand analysis for housing.

Before scanning the methods for estimating demand for housing, one needs to know the motives behind the demand for a house. In housing economics, three motives have been identified which create the demand for a house. They are:

a) Shelter or security motive
b) Income or investment motive
c) Speculative or profit motive

Shelter or security motive arises because every person needs a shelter for himself and his family. This phenomenon is universal in nature since shelter is one of the basic needs of mankind. The income or investment motive is the result of the desire of a man to invest his savings to earn or supplement income. This motive explains the private rental housing. In Indian context the income motive is difficult to be fulfilled because of the deterrent environment in which Indian housing sector operates. The third motive, namely, the speculative motive stems from the desire of man to realise gains from the transactions in house and real estate. This motive does not reflect any genuine housing need.

\textsuperscript{1}George Fallis (1985), \textit{Housing Economics}, Butterworths.
The two most common methods for estimating demand for housing are (a) by aggregating potential demand and (b) by econometric model building.

The most popular method of estimating housing demand is through aggregating potential demand. Most of the Housing Boards and Development Authorities in India use this method. Applications supported by a registration fee are invited from potential buyers or investors in housing. Based on the applications received aggregate demand is estimated. In the absence of registration fee all the applications may not be genuine and the aggregation based on the applications may not in such a case present a true picture. This method also has certain limitations. Even in the case of Co-operative House Building Societies which are formed for members interested in housing and who contribute towards the share capital, there are dropouts owing to one reason or the other.

The method for estimating housing demand function as well as the price and income elasticities of housing demand through econometric model building should take into consideration the special features of the commodity housing, viz., cost heterogeneity, durability and spatial fixity. It also takes into account characteristics of households, their income, saving, investible funds and the propensity to save and invest in housing and price of the house. The income that decides the purchase of a house is not only the present income but also the
expected future income of the households. The propensity of households to save and invest in housing depends on how they view this commodity. Their propensity tends to be higher if the households perceive housing as an investment avenue (as against consumptive capital) and limit their present consumption with the expectation that consumption from future income will more than outweigh the present sacrifice.

In the econometric model used for estimating the housing demand function, the relationship between past demand and past movements in incomes, house prices and rents, interest rates, etc., is established. There is a probability that such a relationship is not reliable either because all the variables affecting demand for housing have not been taken into consideration or the data available to test the relationship are not adequate. In addition, the forecast based on this relationship also depends on the future movements of prices, incomes and other explanatory variables. These movements are again not easy to predict.

Very little work has been done in the direction of estimating the elasticities of housing demand and housing demand function for developing countries like India. It is to be mentioned that building an econometric model for estimating housing demand function in India is out of the scope of this thesis. However, a pioneering thesis in this respect titled 'Economics of Housing Markets in India' submitted for the degree of doctor of philosophy by Piyush Kumar Tiwari at Indira
Gandhi Institute of Development Research, Bombay, is worth mentioning. A brief and comprehensive discussion of the part of the thesis dealing with housing demand analysis for urban India follows in the next few paragraphs.

One segment of the above mentioned thesis has dealt explicitly with the estimation of housing demand function and income and price elasticities for urban India (18 states have been considered). The data used for this purpose was the urban household survey data for India collected during the 43rd round of the 'National Sample Survey' by Central Statistical Organisation (CSO) for 1987-88. In the thesis under discussion, the conventional demand analysis which postulates a relationship between the quantity of good demanded, its relative price, the income of the household and other household characteristics affecting demand has been considered. In this perspective the functional form is as follows:

\[ Q_h = f(P_h, Y, H_1, H_2, ..., H_i) \]

Where, \( Q_h \) = quantity of housing services demanded.

\( P_h \) = relative price of housing.

\( Y \) = income of the household.

\( H_i \) (\( i = 1, 2, ..., I \)) = household characteristics.

In the case of housing demand analysis, the measurement of the variables \( Q_h \), \( P_h \) and \( Y \) as well as the functional form of the equation is a crucial exercise. In the thesis mentioned above, the 'Ridge
Regression Technique\textsuperscript{2} has been used to specify the model for estimating the housing demand function and price and income elasticities for urban India.

The explanatory (independent) variables used in the model are price of houses, household characteristics (age of the household head and household size) and household income. The measure of income considered is the annual income of the households. This follows the Permanent Income Hypothesis of Friedman\textsuperscript{3}. The demand for housing depends not only on the present income but also on expected future income of the household. \textit{Hedonic price index} has been used as the price variable. A housing unit may have several objectively measured characteristics like type of building (flat, chawl/bustee), type of construction (pucca, semi-pucca and kutchha), type of flooring (pucca and kutchha) etc. Each characteristic commands a price in the market. Hence a housing unit may be perceived as a bundle of characteristics. Now, various bundles and their associated prices reveal the implicit prices of the characteristics, known as hedonic prices. Regressions of prices (rental value reported by households in the NSS survey) on characteristics (like pucca, kutchha, flat, independent house, type of flooring, etc,) will empirically determine the hedonic prices. Since the price of a dwelling unit is a function of shelter quality, size and other


\textsuperscript{3} Friedman, M. (1957) \textit{A Theory of Consumption Function}, Princeton.
shelter characteristics, it is logical to incorporate the idea of hedonic price index.

The demand for housing (the dependent variable in the model) has been measured in terms of the expenditure incurred by households on consumption of housing services. The actual rent paid by the rental households and the imputed rent paid by the owner households is taken as a measure of housing expenditure. In other words, expenditure incurred by households in the form of rent paid has been used as a surrogate for housing consumption.

Some of the broad conclusions regarding income and price elasticity for housing in India that have emerged from the thesis discussed above are cited below:

a) The demand for housing in India is inelastic with respect to income but with respect to price it is elastic\(^4\).

b) The demand for housing is more responsive to the changes in prices than income

c) The other variables, which have impact on the housing expenditure of the household, are the age of the household head (positive impact) and the size of the household (negative impact).

\(^4\) However, it has been indicated in Dholakia, B.H. (1980) The Economics of Housing in India, NBO mimeo. New Delhi that the demand for housing with respect to price is inelastic (-0.33)
3.2 Housing Need

General Overview: The concept of housing 'need' has a social dimension and is different from that of economic demand for house. It is a normative indicator which shows the extent to which the quantity and quality of existing accommodation falls short of that required to provide each household or person in the population, irrespective of ability to pay or of particular personal references, with accommodation of a specified minimum standard and above\(^5\).

In a planned economy, the major thrust for estimating housing shortage lies on the difference between housing stock and housing need. On the other hand, in market driven housing market, emphasis is given to bridge the gap between housing stock and effective housing demand. Hence, in India the former is relevant. However, in almost all the countries it has been accepted that the Government has the responsibility to tackle the problem of housing shortage and raise the standards of accommodation. To succeed in these aims, the Government has to bring housing demand in line with the housing need. The estimates of both demand and need are, therefore, essential for formulating a successful policy by the Government.

\(^5\) The Economics of Housing – Lionel Needleman, 1965.
Unlike estimation of effective housing demand, the housing needs estimation is totally in a different category. The estimation of housing needs does not forecast what is going to happen. Rather it provides the policy makers with a statement that reflects what is required to be done on minimum housing standards. This type of estimation requires forecasts of future size of population and structure, which are hardly affected by external economic forces. Hence it may be inferred that estimation of housing needs is much less uncertain than that of housing demand.

In order to get a clear view of the relationship between housing stock and housing needs and the various factors affecting these, a schematic diagram of housing balance sheet (Figure 3.1) is given for reference. Under ideal conditions the supply of standard or acceptable housing stock and demand for it should balance. Any deficit in housing stock would result in slum formation or substandard housing, congestion, overcrowding etc.

**Assessment of Housing Needs in India:** The need to formulate housing programmes in India on the basis of proper assessment of housing requirements and people’s affordability has become a major issue particularly in the context of three recent developments in the Indian economy.
Figure 3.1

Housing Stock

Availability

Plus

Natural Growth

- Dilapidation
- New Construction
- Improvements/Additions
- Upgradation
- Net Supply

Minus

Present Household

Marriage

Employment

Income

Nucleus Family

Living Standard

Total Demand

Balancing Factors
Demand-Supply

The first development was the formulation of the National Housing Policy (NHP) on which work was initiated in 1987 and which became an official document in August 1994. As mentioned in Chapter II, the NHP has clearly stated that the Government would act as an enabler rather than a provider of housing. The second development was the initiation of the economic reform process in July 1991. It has a direct impact on the cost of housing problem solutions. With the onset of liberalisation policy and integration of various sectors, the housing sector cannot depend upon the pool of allocated resource under the Directed Credit System. In such a situation the Government and private players in the housing sector have to compete with other players in the industry, trade and export sectors for mobilisation of funds. Hence, the financing of housing activities would have to be at a higher cost than in the past and the cost would be around the market cost of funds. The third development was the formulation of National Housing and Habitat Policy in 1998, which reaffirmed the Government’s shift in the role from a provider of housing to that of an enabler.

The National Report for Habitat II Conference (Istanbul, June, 1996) has also indicated that a market driven approach would be the guiding principle for housing activities in India; however, the

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6 In a Directed Credit System, major development banks and financial institutions have developed and functioned in a cushioned environment with Government guaranteed funding constituting the major resource base.
Government would intervene for the lower segments of the housing market in the event of failure in the market mechanism.

The foregoing discussion has been made to establish the fact that housing needs in India has to be properly assessed not only at the macro level (all India level) but also at the micro level for different segments of the housing market to formulate a proper and realistic housing programme for India. The various segments of the housing market include type of houses (pucca, semi-pucca and kutcha), income categories of households, urban and rural housing, informal housing and upgradation activities.

The present chapter, however, deals with the data pertaining to housing needs at the macro level and no attempt has been made to assess or analyse segmented housing needs. The main objectives of this chapter are (a) to analyse the magnitude of housing needs/shortage at the aggregate level and the flow of funds into the housing sector and (b) to identify the group of financial institutions which would actively participate in housing finance activities to boost the housing finance system in India. Hence, the macro level of data of housing needs seemed to be appropriate.

There are a number of estimates of housing needs and shortages in India. However, for the purpose of present analysis, the estimates of National Buildings Organisation (NBO) and National Report for Habitat II Conference have been considered.
The estimates of NBO, Ministry of Urban Affairs and Employment, Government of India, regarding housing shortage are given below in Table 3.1.

**Table 3.1 Housing Stock, Households and Housing Shortage in India**

<table>
<thead>
<tr>
<th>Year</th>
<th>Housing Stock</th>
<th>Useable Housing Stock</th>
<th>Households</th>
<th>Housing Shortage @</th>
<th>Housing Shortage #</th>
<th>Housing Shortage $</th>
</tr>
</thead>
<tbody>
<tr>
<td>1971</td>
<td>93.0</td>
<td>82.5</td>
<td>97.1</td>
<td>4.1</td>
<td>14.6</td>
<td>14.6</td>
</tr>
<tr>
<td>1981</td>
<td>116.7</td>
<td>101.5</td>
<td>123.4</td>
<td>6.7</td>
<td>21.9</td>
<td>23.3</td>
</tr>
<tr>
<td>1991</td>
<td>148.0</td>
<td>133.8</td>
<td>153.2</td>
<td>5.2</td>
<td>19.4</td>
<td>22.9</td>
</tr>
<tr>
<td>2001E</td>
<td>179.1</td>
<td>164.1</td>
<td>178.5</td>
<td>-0.6</td>
<td>14.4</td>
<td>19.4</td>
</tr>
</tbody>
</table>

Source: Prominent Facts on Housing, 1997, NBO, Ministry of Urban Affairs and Employment, Government of India

Notes: @ Shortage estimated on the basis of the difference between number of households and housing stock (minimum need as discussed in Chapter II)
# Shortage estimated on the basis of the difference between number of households and useable housing stock (replacement/upgradation as discussed in Chapter II)
$ Shortage estimated on the basis of the difference between number of households and useable housing stock and taking into account the congestion and obsolescence factors (discussed in Chapter II)
'E': Estimated

According to Table 3.1, in terms of minimum housing requirement criterion (one house per household), the shortage was 4.1 million, 6.1 million and 5.2 million in 1971, 1981 and 1991 respectively. It is further estimated that in 2001, in terms of minimum housing requirement criterion, there will be a surplus of 0.6 million units. However, if factors like replacement/upgradation of kutcha/unserviceable kutcha houses, congestion and obsolescence/replacement of old houses are taken into consideration, the estimated housing shortage in 2001 would remain at a staggering high of 19.4 million units – slightly lower than the housing shortage that prevailed in 1991.
The estimated housing shortage for the year 2001 as given in Table 3.1 has been derived from the estimated figures of housing stock/useable housing stock and households for 2001. Further discussions on these two estimates seem appropriate at this juncture.

Table 3.2  Additional Housing Stock and Households (In million)

<table>
<thead>
<tr>
<th></th>
<th>Housing Stock</th>
<th>Useable Housing Stock</th>
<th>Household</th>
</tr>
</thead>
<tbody>
<tr>
<td>1971-81</td>
<td>23.7</td>
<td>19.0</td>
<td>26.3</td>
</tr>
<tr>
<td>1981-91</td>
<td>31.3</td>
<td>32.3</td>
<td>29.8</td>
</tr>
<tr>
<td>1991-2001</td>
<td>31.1 (estimated)</td>
<td>30.3</td>
<td>25.3</td>
</tr>
</tbody>
</table>

Source: Computed from Table 3.1

The additional housing stock during 1991-2001 has been estimated to be 31.1 million units as against the 31.3 million units during 1981-1991 (refer to Table 3.2). Thus, a marginal declining trend is estimated to be observed in the production of additional housing stock during the period 1991-2001. A similar trend is also observed with regards to the production of useable housing stock. The declining trend in the production of housing stock/useable housing stock seems to be logical during the initial phase of the liberalised era in the national economy. With a market-driven approach to housing activities and with a progressively lower component of housing in the subsidised market, housing costs are likely to go up and there might be some slow-down in production activity. This slow-down will continue till the market is confident that income levels are also going to rise at a sufficiently attractive rate to generate additional effective demand for house.
The estimation of the number of households pertaining to the year 2001 as given in Table 3.1 requires some clarifications. It is observed from Table 3.2 that there would be 25.3 million additional households during the period 1991-2001 and the corresponding figures were 26.3 million and 29.8 million for the periods 1971-81 and 1981-1991 respectively. Thus, the additional number of households during 1991-2001 is estimated to be even lower than that pertaining to the period 1971-1981. Why this sudden fall in the formation of households during the decade 1991-2001? The NBO, however, has not given any explanation in this regard. Apparently, the estimated number of households of 178.5 million in 2001 seems to be significantly underestimated, especially, in the light of increasing migration of people from rural to urban areas in search of earning their livelihood. The migration has to result in increase in absolute number of households. The population has been projected at 1022.1 million for the year 2001 in the Eighth Five Year Plan document. According to the published data of NBO, the household size in India has declined continuously from 5.65 in 1971 to 5.54 in 1981 and further to 5.52 in 1991. If household size is taken to be constant at 5.52 during 2001 also (although on the basis of past trend it might decline marginally), then the number of households would be around 185 million during that year (computed on the basis of population projection given in the Eighth Five year Plan). In such a situation, in terms of minimum housing requirement criterion, there will be a shortage of 5.9 million
units in 2001 and not a surplus of 0.6 million units as is shown in Table 3.1. The other estimates of housing shortage taking into account useable housing stock, congestion factor and obsolescence as given in Table 3.1 will also increase as a result.

The National Report for Habitat II Conference has also furnished data relating to housing shortage in India. The Table 3.3 gives the estimates of housing shortage as published in the National Report.

Table 3.3 Housing Stock, Households and Housing Shortage in India

<table>
<thead>
<tr>
<th>Year</th>
<th>Housing Stock</th>
<th>Households</th>
<th>Housing Shortage @</th>
<th>Housing Shortage #</th>
<th>Housing Shortage $*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1991</td>
<td>148.0</td>
<td>153.2</td>
<td>5.2</td>
<td>21.0</td>
<td>22.9</td>
</tr>
<tr>
<td>1995</td>
<td>161.1</td>
<td>166.4</td>
<td>5.3</td>
<td>20.2</td>
<td>31.1</td>
</tr>
<tr>
<td>1997</td>
<td>168.5</td>
<td>174.1</td>
<td>5.6</td>
<td>21.6</td>
<td>33.0</td>
</tr>
<tr>
<td>2001</td>
<td>174.1</td>
<td>191.2</td>
<td>17.1</td>
<td>33.1</td>
<td>44.5</td>
</tr>
</tbody>
</table>


Notes: @ Shortage estimated on the basis of the difference between number of households and housing stock (minimum need as discussed in Chapter II)

# Shortage estimated on the basis of the difference between number of households and useable housing stock (replacement/upgradation as discussed in Chapter II)

$ Shortage estimated on the basis of the difference between number of households and useable housing stock and taking into account the congestion and obsolescence factors (discussed in Chapter II)

* Congestion factor is not included in rural areas in 1991 as the joint family system is predominant. This factor is however, included in 1995, 1997 and 2001 estimates to take into account the possible growth of nuclear families and new housing typologies.

A comparison of the estimates of housing shortage for the year 2001 given in Table 3.1 and Table 3.3 reveals that there is a significant difference between the two. The NBO has estimated that there would be a housing shortage of 19.4 million units in 2001 (refer to Table 3.1) while the Indian National Report has stated that the shortage would be around 44.5 million units during the same year (refer to Table 3.3). The analysis pertaining to the difference between the two estimates
calls for an in-depth study of the methodologies involved in both the estimates. This analysis is not essential since the present chapter does not intend to deal with the numerical accuracy of housing shortage figures but tries to impart a feeling of the high magnitude of housing shortage India is going to face in the year 2001. The NBO estimate of housing shortage may be considered to be a base level one since the forecast of the number of households of NBO for the year 2001 is significantly underestimated (as discussed above). However, a robust analysis of the Tables 3.1 and 3.3 leads to the inference that the Government of India is not going to achieve its mission (as stated in the housing policies) of ‘shelter for all by the year 2001’.

After the discussion relating to the magnitude of housing shortage in India, it is necessary to have an analysis with regards to the flow of funds into the housing sector. However, for a better understanding of the analysis pertaining to the flow of funds from the formal sector institutions into the housing sector, a brief section on the structure of housing market and housing finance system in India seems essential.

### 3.3 Housing Sub-markets and Housing Finance System in India

The demand and supply side aspects of housing provision are influenced by a host of housing sub-markets and their effective operations. The housing market may be segregated into the input
market, production and the output market and their interrelationship is presented in a flow chart as given in Figure 3.2.

As is depicted in Figure 3.2, the main components of the input market of housing are land, infrastructure, finance, labour and material. Since the main thrust of the thesis is on housing finance, it is pertinent to discuss the housing finance system prevailing in India in a comprehensive manner.

In India, the flow of credit into the housing sector comes from two sources, namely, the formal sector and the non-formal sector. According to the definition adopted by the Rangarajan Committee, 1987, the formal sector includes budgetary allocation of centre and state Governments, assistance from the financial institutions/agencies like LIC, GIC, UTI, Scheduled Commercial Banks, Provident Funds and specialised housing finance institutions like Housing Finance Companies (HFCs) and Cooperative Housing Finance Societies. The non-formal sector consists of the household themselves, private money lenders, public and private employers extending home loans to their employees and project financing by HUDCO and other agencies outside the budgetary process. It may, thus, be noted that a substantial portion of the organised sector's contribution is included in the non-formal sector (refer to figure 3.3).
Figure 3.2

INPUT MARKET
- LAND
- INFRASTRUCTURE
- FINANCE
- LABOUR

PRICE

PRODUCTION
- BUILDERS
- DEVELOPERS
- LANDLORDS

PRICE

OUTPUT MARKET
- HOUSING
- SERVICES
- BOUGHT BY
- RENTERS & HOME
- OWNERS

FLOW OF CREDIT INTO HOUSING SECTOR

Flow of credit into housing from the formal sector originates from two source:

(a) bulk credit

(b) retail market

Bulk credit consists of resources available through directed credit from various institutions operating in the formal sector and also includes the budgetary support by the central and state Governments. The retail market, on the other hand, covers the self reliant resource mobilisation efforts by housing finance institutions through capital market, deposits from the household sector and new instruments like securitisation.

Housing has been primarily a self-help activity for the majority of the households in India. The public sector investment in housing is very low and less than 10 per cent of the total investment in housing (as discussed in Chapter II) but it has been socially significant because of its focus on economically weaker sections. In the recent years the flow of institutional finance into the housing sector has shown a phenomenal growth particularly after the institutional mechanism has been strengthened by the formation of an apex level institution – the National Housing Bank - which is supposed to refinance the land development and shelter programmes of public and private agencies and gives guidelines for regulation of housing finance in India. Among the traditional formal sector financial institutions, LIC and
commercial banks have emerged as important contributors to the housing finance in India. For example, the disbursement of LIC for housing has grown significantly from Rs. 185 crores in 1985-86 to Rs. 825 crores in 1990-91 (for detailed analysis of flow of funds to housing sector refer to the next section). Moreover, there has been a spurt in the number of specialised housing finance institutions both in the public and private sectors in the last few years. The contribution of housing finance institutions, which has assumed importance only during the last few years, is a step towards the broadening of base of the housing finance system in India and integration of it with the overall financial sector of the country in a formalised manner. As discussed earlier, with implementation of the liberalisation policy in the Indian economy since July 1991 and integration of various sectors, the housing finance institutions cannot depend on the allocated resource under the Directed Credit System for meeting most of their resource requirements. Instead, they should make major efforts to diversify and broad base the spectrum of resources raised through retail market like mobilisation of deposits from the public, tapping of capital markets and securitisation. But the housing finance institutions face several obstacles while competing with other players in the liberalised system to garner the savings (particularly household savings) of the Indian economy. The process of reshaping the housing finance system in India by removing the obstacles and providing a level playing field for the housing finance institutions should be immediately initiated to make it a vibrant one. A detailed discussion
regarding the obstacles faced by the housing finance institutions has been made in Chapter IV.

Though housing finance has developed as an organised activity during the last few years, the informal housing sector still plays a crucial role in housing activities in India with a large proportion of the households funding their building activities either through their personal savings or through any other informal sources.

3.4 Flow of Funds into the Housing Sector

Data relating to the flow of funds into housing sector from formal sector financial institutions are available from National Buildings Organisation. However, a holistic analysis regarding the flow of funds into the housing sector in India is not possible because information regarding the non-formal sector's contribution is not available. Since non-formal sector contributes significantly to housing in India, formal sector's contribution throws a partial light to the overall flow of funds into the housing sector. The Government of India should take initiative through its agencies to arrive at a surrogate of non-formal sector's contribution to housing sector investment for an in-depth research purpose.
In this section, the flow of funds into the housing sector from the major suppliers operating in the formal sector during the Pre-Eighth Five Year Plan period has been discussed. Further, target-achievement analysis with regard to the flow of funds from formal sector institutions during the Eighth Five Year Plan and projected funds flow during Ninth Five Year Plan also form parts of this section.

**Contribution of Formal Sector Institutions during Pre-Eighth Plan Period:** As discussed earlier, the major formal sector institution include Life Insurance Corporation (LIC), Scheduled Commercial Banks (SCBs), General Insurance Corporation (GIC), Provident/Pension Funds (PF), National Housing Bank and Housing Financial Institutions (HFIs) like Co-operative Societies and Housing Finance Companies (HFCs). A brief discussion regarding the flow of funds from these institutions into the housing sector follows in the next few paragraphs.

The lending pattern of LIC, one of the major contributors to housing, shows that most of its contributions comprise of direct lending, loans to its own housing finance subsidiary and bulk loan and assistance to State Government apex bodies. The investment of LIC into the housing sector takes the form of allocation of funds for socially oriented schemes like electrification, water supply, sewerage and road transportation. Statutorily, LIC is required to invest 25 per cent of its
The cumulative contribution of LIC to housing till 31st March 1991 was Rs. 4400 crores. During the Seventh Plan Period (1985-90), the contribution of LIC was around Rs. 1570 crores. As against an average annual investment of slightly over Rs.300 crores during the Seventh Plan Period, the investment of LIC in housing sector in 1990-91 was as high as 825 crores.

SCBs are required to allocate 1.5 per cent of the incremental deposits in the previous year towards lending to the housing sector. However, before 1989 the Reserve Bank of India (RBI) used to make annual credit allocations to commercial banks for lending to housing sector. Presently, the RBI has stipulated the utilisation pattern of the allocated funds to the housing sector in the following manner:

- 30 per cent of the allocation is for direct lending of which half should be in rural and semi-urban areas
- A further 30 per cent is by way of indirect lending and
- The balance 40 per cent to be deployed in Government guaranteed bonds and debentures of HUDCO and NHB.

The allocation of funds by the SCBs to the housing sector has increased significantly from Rs. 186 crores in 1986-87 to Rs. 387 crores in 1990-91 – a compounded annual growth of more than 20 per cent.
In the case of General Insurance Corporation, 35 per cent of its annual accretion of investible funds is earmarked as loans to the State Governments for village housing and Economically Weaker Section (EWS) schemes and to HUDCO. GIC contributed Rs. 55 crores in 1987-88 and Rs. 77 crores in the year 1990-91; the annual average growth of contribution was around 12 per cent.

Major portion of funds available with Provident and Pensions Funds are utilised by the Government as a part of its budgetary resources. Provident and Pension Funds are required to invest, through regulatory provisions, 85 per cent of their resources in special deposit schemes of the Central Government and 15 per cent in State Government securities or any other negotiable securities. The contribution of the PF to the housing sector is by the way of withdrawals. In absolute terms, the housing advances from PF increased from Rs. 129 crores in 1983-84 to Rs. 478 crores in 1990-91.

The National Housing Bank, the apex body of the formal HFIs, provides financial assistance to HFCs either in the form of equity participation or refinance. NHB also provides refinance to SCBs and Co-operative Societies. During the year 1990-91, Rs. 560.45 crores of refinance was provided by NHB to eligible institutions.
The number of Housing Finance Companies has increased significantly in the recent years particularly after the formation of NHB. These companies provide housing finance to individuals and state agencies. The total quantum of funds made available by the recognised HFCs has experienced a marked increase from Rs. 254 crores in 1987-88 to Rs. 986 crores in 1990-91 – a compounded annual growth of more than 57 per cent.

While discussing the flow of funds from the formal sector into housing sector, it is pertinent to mention about the inter-institutional flow of funds among various components comprising the formal sector. For instance, HUDCO gets funds from the Government in the form of equity support and also seeks assistance from NHB, LIC, etc. and in turn provides funds to the co-operative housing finance institutions and state housing boards. Similarly, housing finance companies and co-operative housing finance societies besides raising resources from the public depend upon their sponsoring agencies, apex bodies and upon general financial institutions for resources. They also disburse part of their funds to state agencies and other housing institutions. This inter-institutional flow of funds has to be taken into account while calculating the real contribution of the formal sector institutions to the housing sector. If inter-institutional flow of funds is not properly adjusted, the problem of double counting may occur in the calculation of real contribution of the formal sector.
The total flow of funds to the housing sector, including the inter-institutional transfers, for the period 1990-91 is presented below in Table 3.4 for a synoptic understanding.

**Table 3.4  Total Flow of Funds to the Housing Sector by the Formal Sector during the Year 1990-91 (Rs. crores)**

<table>
<thead>
<tr>
<th>Agencies</th>
<th>Total</th>
<th>To State Agencies</th>
<th>To Institutions</th>
<th>To Individuals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central &amp; State Governments</td>
<td>654.03</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Provident Funds</td>
<td>477.92</td>
<td>-</td>
<td>-</td>
<td>477.92</td>
</tr>
<tr>
<td>HUDCO</td>
<td>735.00</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>NHB</td>
<td>560.43</td>
<td>-</td>
<td>560.43</td>
<td>-</td>
</tr>
<tr>
<td>SCBs</td>
<td>390.00</td>
<td>248.43</td>
<td>108.42</td>
<td>33.15</td>
</tr>
<tr>
<td>LIC</td>
<td>825.17</td>
<td>280.30</td>
<td>318.56</td>
<td>226.31</td>
</tr>
<tr>
<td>GIC</td>
<td>77.05</td>
<td>35.65</td>
<td>41.40</td>
<td>-</td>
</tr>
<tr>
<td>UTI</td>
<td>118.67</td>
<td>22.75</td>
<td>95.92</td>
<td>-</td>
</tr>
<tr>
<td>Co-operative Societies</td>
<td>300.00</td>
<td>-</td>
<td>300.00</td>
<td>-</td>
</tr>
<tr>
<td>HFCs</td>
<td>986.38</td>
<td>187.41</td>
<td>-</td>
<td>798.97</td>
</tr>
</tbody>
</table>


**Target-Achievement Analysis of Flow of Funds during Eighth Plan Period:** In this section the projected flow of funds from the formal sector institutions to the housing sector and actual disbursements during the Eighth Plan Period is presented in a comparative framework. At the outset it is necessary to mention that HUDCO’s loans are not directly given to the individuals but are routed through the state agencies. Its contribution therefore, is not considered under the specialised institutional category of the formal sector except for the amount of project finance reflected in the State budgets.
The Working Group on Finance for Housing Sector for Eighth Plan (1992-97) adopted a physical target of 21.77 million units for the Eighth Plan Period with an investment of Rs. 97,530 crores at 1991-92 prices. However, the working group projected that Rs. 25000 crores would flow from the formal sector institutions during Eighth Plan Period and this works out to be only 25.6 per cent of the total investment required for the Plan Period. Hence, a substantial portion of the funds would flow from the informal sources. This emphasises the fact that formal and informal sources of finance to housing sector should be combined for higher synergy and they should work for the benefits of the poor and the vulnerable sections of the society.

In Table 3.5 below, institution-wise projected flow of funds, actual disbursements during the period 1992-95 and estimated flow of funds during the Eighth Plan Period are presented.
### Table 3.5 8\textsuperscript{th} Plan Projections, Achievements and Estimated Flow of Funds from Formal Sector Institutions during the Period 1992-97 (Rs. crores)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LIC</td>
<td>5500</td>
<td>22</td>
<td>3129</td>
<td>4500</td>
<td>23</td>
<td>1000</td>
</tr>
<tr>
<td>NHB</td>
<td>0</td>
<td>0</td>
<td>1127</td>
<td>1800</td>
<td>9</td>
<td>+1800</td>
</tr>
<tr>
<td>GIC</td>
<td>700</td>
<td>3</td>
<td>508</td>
<td>700</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>SCBs</td>
<td>5000</td>
<td>20</td>
<td>1227</td>
<td>2770</td>
<td>14</td>
<td>2230</td>
</tr>
<tr>
<td>Provident/Pension Funds</td>
<td>5400</td>
<td>22</td>
<td>2450</td>
<td>3900</td>
<td>20</td>
<td>1500</td>
</tr>
<tr>
<td>HFCs</td>
<td>5000</td>
<td>20</td>
<td>3550</td>
<td>4500</td>
<td>23</td>
<td>500</td>
</tr>
<tr>
<td>Securitisation of Mortgages</td>
<td>2000</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2000</td>
</tr>
<tr>
<td>Others including UTI and Home Loan Accounts of NHB</td>
<td>1400</td>
<td>6</td>
<td>560</td>
<td>1200</td>
<td>6</td>
<td>200</td>
</tr>
<tr>
<td>Total</td>
<td>25000</td>
<td></td>
<td>12551</td>
<td>19370</td>
<td></td>
<td>5630</td>
</tr>
</tbody>
</table>

Source: Report on Trend and Progress of Housing in India, National Housing Bank, June 1995

From the Table 3.5, it is seen that the estimated shortfall as compared to the projected level of contribution of Rs. 25000 crores would be about Rs. 5600 crores. According to the NHB source, the actual disbursement of Rs. 12551 crores during the period 1992-95 has fallen short of the targeted amount by Rs. 2450 crores. Some of the few factors attributing towards the non-fulfillment of the targeted level of contribution during the Eighth Plan Period are addressed in the following few paragraphs.

A glance at the Table 3.5 reveals that the major defaulters in meeting the targeted contribution to the housing sector during the Eighth Plan Period are LIC, SCBs, PF and securitisation of mortgages. However, in
the case of Housing Finance Companies (HFCs), the shortfall was relatively much lower.

The contribution of the SCBs in the housing sector was projected by the working group to be Rs. 5000 crores during the Plan Period with the assumption that RBI would increase the allocation of funds to housing sector from SCBs from the level of 1.5 per cent of the incremental deposits (previous year) to 3 per cent. But the allocation remained at the level of 1.5 per cent which in turn resulted in a huge estimated shortfall of Rs. 2230 crores.

The working group expected the setting up of the secondary mortgage market in the Indian financial system during the Eighth Plan. This would garner additional resources for the sector to the extent of Rs. 2000 crores by tapping the financial market. However, the legal and fiscal environment suitable for the operation of secondary mortgage market could not be created during the Plan Period. Some of the issues relating to transfer of Property Act, Stamp Duty Act, Foreclosure Laws, etc. remained unresolved. As a result Rs. 2000 crores could not be realised.

In the case of PF, the estimated shortfall was Rs. 1500 crores. The guidelines of the Government directing the investment pattern of PF were liberalised and provident/pension funds were allowed to invest 15 per cent of their annual net accretions in the debt instruments
floated by banks/financial institutions at market rates. In view of this, NHB/HUDCO could not compete with other institutions like Industrial Development Bank of India (IDBI). Because of the un-affordability aspect of the housing sector, NHB/HUDCO could not float debt instruments offering market-determined rates as offered by other institutions like IDBI.

**Ninth Plan Projections of Flow of Funds into the Housing Sector:** Financial requirements for the Ninth Plan Period by the Ministry of Urban Affairs and Employment (Working Group for Urban Housing during the 9th Plan Period), Government of India, highlight the crucial need for expansion of the formal sector and also encouragement to the informal sector flows for promotion of housing. Table 3.6 below shows the projected fund requirement and funds available from the formal sector during the Ninth Plan for the housing sector.

**Table 3.6  Projected Flow of Funds and Fund Requirement for the Housing Sector during 9th Plan Period**

<table>
<thead>
<tr>
<th>Segment</th>
<th>No. of units (in million)</th>
<th>Fund requirement (Rs. crore)</th>
<th>Funds available from the formal sector (Rs. crore)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>16.76</td>
<td>121370</td>
<td>34000</td>
</tr>
<tr>
<td>Rural</td>
<td>16.25</td>
<td>29000</td>
<td>18000</td>
</tr>
<tr>
<td>Total</td>
<td>33.01</td>
<td>150370</td>
<td>52000</td>
</tr>
</tbody>
</table>

Source: Ministry of Urban Affairs and Employment, Government of India.

From the above table it is seen that the formal sector is going to contribute only Rs. 52000 crores in the housing sector out of a
requirement of around Rs. 151000 crores during the Ninth Plan. Thus, formal sector's share would be around 34 per cent of the total funds requirements. The balance fund has to be mobilised by expansion of the formal sector and also encouraging informal sector flows. This re-emphasises the fact that informal sector financing for the housing sector has to be reshaped and a proper funds management has to be implemented either in a formal way or in an informal manner.

The Working Group for Urban Housing during the 9th Plan Period has estimated that out of Rs. 52000 crores of funds available from the formal sector, Rs. 38000 would flow from the formal sector institutions. The details of the institutions-wise projected flow of funds to the housing sector during the 9th Plan Period is given in Table 3.7.

**Table 3.7 Projected Flow of Funds from Formal Sector Institutions during the 9th Plan Period (1997-2002) for Housing (Rs. crore)**

<table>
<thead>
<tr>
<th>Institution</th>
<th>Flow of Funds</th>
<th>% Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIC</td>
<td>4500</td>
<td>12</td>
</tr>
<tr>
<td>GIC</td>
<td>1000</td>
<td>3</td>
</tr>
<tr>
<td>SCB</td>
<td>5500</td>
<td>14</td>
</tr>
<tr>
<td>Provident/Pension Funds</td>
<td>5000</td>
<td>13</td>
</tr>
<tr>
<td>HFC</td>
<td>9500</td>
<td>25</td>
</tr>
<tr>
<td>HUDCO</td>
<td>2500</td>
<td>7</td>
</tr>
<tr>
<td>NHB</td>
<td>3000</td>
<td>8</td>
</tr>
<tr>
<td>Asset Securitisation</td>
<td>2500</td>
<td>7</td>
</tr>
<tr>
<td>CO-Operatives</td>
<td>3000</td>
<td>8</td>
</tr>
<tr>
<td>Others (UTI etc.)</td>
<td>1500</td>
<td>4</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>38000</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: Working Group for Urban Housing during the 9th Plan Period
A comparison of Table 3.5 and Table 3.7 reveals that there have been some major re-orientations among the formal sector institutions with regards to the flow of funds to the housing sector. The percentage share of LIC, SCBs and Provident/Pension Funds in the total projected formal sector flow of funds in the housing sector has been estimated to come down during the 9th Plan Period as compared to the 8th Plan Period. However, the share of HFCs is expected to increase significantly from 20 per cent during the 8th Plan to 25 per cent during the 9th Plan Period.

In the 8th Plan Period, the projected flow of funds from the formal sector institutions was Rs. 25000 crores vis-à-vis Rs. 38000 crores during the 9th Plan Period. Although there is an increase in absolute terms, the share of projected formal sector funds in the total funds required (Rs. 97530 crores and Rs. 150370 for 8th and 9th Plans respectively) for the housing sector has declined marginally from 25.6 per cent during the 8th Plan to 25.3 per cent during the 9th Five Year Plan.

The target-achievement analysis of flow of funds into the housing sector during the Eighth Plan Period suggests that a gap might exist between the projection and actual disbursements of funds into the housing sector even during the Ninth Plan Period. It is too early to substantiate this fact with relevant data. However, it may be said that the extent of gap (shortfall) would be less during the Ninth Plan Period.
compared to that of the Eighth Plan Period since the Central Government's budget for the year 1999-2000 (a short critical appraisal of this budget is given in the Epilogue) has taken certain positive steps to enhance the flow of funds into the housing sector from the SCBs and secondary mortgage market. As discussed earlier, the SCBs and the secondary mortgage market were the major defaulters with respect to flow of funds into the housing sector during the Eighth Plan Period (refer to Table 3.5). It is in this budget that the Finance Minister has proposed to make necessary changes in the foreclosure laws in the housing sector through amendments in the National Housing Bank Act to develop the primary and secondary market for housing mortgages. Moreover, this budget has categorically stated that to enhance the availability of banking funds to the housing sector RBI would be advising SCBs to lend up to 3 per cent of their incremental deposits for housing finance.

From the analysis of the above section, it may be inferred that in India most of the formal sector institutions (like LIC, SCBs, PF) from which funds flow into the housing sector mobilise a significant portion of the total financial savings of the households. But these institutions are not exclusively in house financing and as a result resources emanate from them to housing sector as allocated credit. Statutory rules and regulations regarding the allocation of credit to housing sector further govern these institutions. For example, the SCBs are now required to allocate only 1.5 per cent of the incremental deposits in the previous
year towards lending to the housing sector. Moreover, the Directed Credit System is going to collapse gradually as the Indian economy is moving towards a more open, market based system through the adoption of liberalisation policy. At the very outset, it is necessary for the Housing Finance Companies (specialised only in house financing) to come in a significant way in the rescue of housing sector by moving away from their existing role as channelisers of allocated credit to that of generators of additional resources for housing sector through mobilisation of household savings at the grass root level. As stated earlier, a competitive fiscal and legal environment is to be created for the housing finance companies for carrying out the new role. A re-examination of Table 3.5 shows that till the end of the Eighth Plan, the HFCs have been quite successful in contributing funds to the housing sector and they would assume the most potential source of funds to this sector in the coming years. The share of HFCs was 23 per cent of the total estimated flow of funds during this Plan Period as against the projected share of 20 per cent. The Government of India perceived the importance of housing finance companies for boosting the flow of funds in the housing sector during 1980s and it was during the Seventh Plan Period that the Government felt the need to form an apex body to promote and regulate housing finance institutions. The success of the Reserve Bank of India, as apex body to regulate and promote banking system in India, urged the policy makers of the housing sector to replicate this concept for the specialised housing finance institutions. As a consequence, the
National Housing Bank (NHB) was established as a subsidiary of Reserve Bank of India under the NHB Act, 1987 to act as an apex institution in the housing finance system in India.

3.5 NHB – Its Formation and Main Functions

As discussed in the earlier section, the need to form an apex body for a proper administration of the housing system was felt in the 1980s. This need gained more relevance after the Indian economy moved towards a more market-oriented system as a consequence of the declaration of the liberalisation policy in July 1991. The integration of various sectors in the economy during the post-liberalisation era called for an urgent need to make the housing sector more competitive vis-à-vis other sectors of the economy. As a result the formation of NHB as the apex body of the housing finance institutions was a welcome move from the policy makers.

The National Housing Bank was established as a subsidiary of Reserve Bank of India under the NHB Act, 1987 to act as an apex institution in the housing finance system in India. The primary functions of the NHB are that of promotion and regulation of the housing finance system. It has a separate supervisory wing for the Housing Finance Companies. Apart from the regulatory and supervisory functions, the
NHB has a supplementary function of refinancing for direct housing loans given by housing finance institutions and scheduled banks.

To evaluate the performance of NHB in carrying out its functions, the information as published by the different issues of Report on Trend and Progress of Housing in India\(^7\) (June, 1995 and June, 1996 – the latest issue till May, 1999) have been secured and analysed.

**NHB’s Promotional Endeavour:** In order to gain the confidence of investors, depositors and borrowers in the housing finance system, the NHB during the year 1994-95 introduced, on the lines of RBI’s directions to Non Banking Financial Companies (NBFCs), capital adequacy norms, prudential norms for income recognition, assets classification, credit concentration to single & group borrowers and credit rating etc. for HFCs having Net Owned Funds (NOF) of Rs. 50 lakhs and above.

The HFCs were required to achieve a minimum capital adequacy of 8 per cent by 31\(^{st}\) March 1996. All HFCs were advised by NHB to obtain credit rating of its deposit instruments with effect from 1\(^{st}\) September, 1995 from one of the three credit rating agencies, viz., CRISIL, CARE and ICRA. Details about the minimum rating to accept deposits from the public were intimated to the HFCs. Further, HFCs were advised by NHB not to retain the services of same audit firms for a continuous
period of ‘more than four years including the period already being
served by them with the HFC’ subject to their suitability.

Recognising the needs of the Non-Resident Indians (NRIs) for plots
and construction/purchase of residential houses, the Government of
India had, during the year 1992-93, formulated a scheme for NRI
investment in housing and real estate. The NHB set up a nodal cell for
co-ordinating decisions on policy and procedures relating to the
scheme. The total investment made under the scheme upto 31st March
1996, amounted to Rs. 91.83 crores.

To enable HFCs, commercial banks and co-operative sector
institutions to carry out housing finance on viable and sustainable
basis especially in the changing economic environment, NHB
undertook training activities for these institutions. The training
activities undertaken, focussed on achievement of three main
objectives, namely, expansion of a market oriented housing finance
system, increasing private and domestic sources of funds for the
housing sector and increasing the supply of housing finance to low-
income families. During the year 1994-95, a total of 130 officials from
the recognised HFCs benefited from these programmes.

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7 A Publication of National Housing Bank
NHB's Supervisory and Regulatory Endeavour: NHB conducts inspection of HFCs in terms of NHB Act and as per the NHB (HFCs) Directions, 1989. During the year 1994-95, NHB carried out inspection of 27 HFCs. NHB issued prohibitory orders against three HFCs on the basis of inspection findings for contravention of the directions and other major irregularities. Four HFCs were issued prohibitory orders for misusing the name of NHB in the documents/publicity material pertaining to public issue of their share capital in a manner which tantamount to misleading the investing public.

During 1995-96, NHB undertook inspection of 17 HFCs including 10 HFCs with NOF of Rs. 50 lakhs and above. Besides, information/data was collected from other 48 HFCs. Based on the findings of the inspection and off-site surveillance, NHB, during the year 1995-96, issued prohibitory orders against two HFCs.

NHB also undertook measures to ensure that all HFCs strictly submit the annual returns within the prescribed time limit as required under the directions. It had also imposed some stipulations to regulate the acceptance of deposits by HFCs. Under the stipulations of NHB, the HFCs can raise deposits and other borrowing upto 10-15 times of their Net Owned Funds (NOF).
**NHB's Financial Assistance:** Refinance assistance provided by NHB to all eligible primary lending institutions constitutes the major chunk of the total financial assistance flowing out from the NHB.

During the year 1995-96 (July-June), refinance assistance provided by NHB to all eligible primary lending institutions amounted to Rs. 333.05 crores as against Rs. 317.83 crores in the previous year. The financial assistance provided by NHB upto 30th June 1996 stood at Rs. 2657.49 crores on a cumulative basis. Out of the total refinance assistance (cumulative) provided by NHB, HFCs account for Rs. 2147.59 crores (80.81 per cent), co-operative sector institutions Rs. 325.29 crores (12.24 per cent) and SCBs Rs. 184.61 crores (6.95 per cent). For a summary of agency-wise disbursements made by NHB during the years 1993-94 to 1995-96, refer to the Table 3.8 below.

**Table 3.8 Agency-wise Disbursements by NHB during the period 1993-94 to 1995-96 (amount in Rs. crore).**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>SCBs</td>
<td>23.96</td>
<td>3.72</td>
<td>21.10</td>
<td>184.61</td>
</tr>
<tr>
<td>Co-operative Sector</td>
<td>53.88</td>
<td>38.56</td>
<td>63.57</td>
<td>325.29</td>
</tr>
<tr>
<td>HFCs</td>
<td>244.44</td>
<td>275.55</td>
<td>248.38</td>
<td>2147.59</td>
</tr>
<tr>
<td>Total</td>
<td>322.28</td>
<td>317.83</td>
<td>333.05</td>
<td>2657.49</td>
</tr>
</tbody>
</table>

Source: Report on Trend and Progress of Housing in India, National Housing Bank, June 1996.

In a nutshell it may be said that NHB has been trying to promote and regulate the housing sector in India. As a result, the number of NHB
approved HFCs (both in the public and private sectors) has increased from five (with some fifty branches) in 1988 to twenty one (with over 300 branches) during 1996 and the institutional flow of funds into the housing sector has grown significantly during the last ten years. However, a lot more has to be done to make the housing sector a competitive one vis-à-vis other sectors in the liberalised Indian economy. The NHB should take initiative and interact with the Government for providing a level playing field for the HFCs by removing certain obstacles in the existing fiscal as well as legal environment (discussed at length in Chapter IV).