Section 5

RECOMMENDATIONS

5.1   Objective and Scope

5.1.1   The objective of constructing a Housing Start-Up Index (HSUI) is to measure the change in the level of activities in housing sector and to identify the growth/recessionary tendencies in this and related sectors of the economy.

5.1.2   The scope of HSUI would be limited to new built residential units in urban India, whose construction is authorised through issuance of building permits.

5.1.3   The HSUI may be constructed based on two sets of data

(a)   The start up coefficients reflecting the recent experience of conversion of housing permits into housing starts and (b) the number of permits issued during the last two years or so. The Group recognized the fact that besides these, actual housing starts in any quarter are likely to be influenced by a host of other factors like price of building material, interest rate for housing loans, policy pronouncements, legislations, administrative orders affecting construction sector etc. To a certain extent, these factors would affect the demand and supply parameters of the housing market and consequently the number of permits issued, with possibly a time lag of a few months. One could, therefore, argue that these factors are included in the model through the number of permits.

5.1.4   The start up coefficients, computed from the data in recent past, reflect institutional and social response to housing permits in terms of their conversion into actual housing starts. The time required for administrative and procedural clearance after the issuance of permits, time taken to complete the formalities of obtaining loans, organizing material, community rituals etc. are considered to be rigid or fixed, at least in the short run. As housing is a long term decision, predictions based on these coefficients, that reflect to some extent procedural and social rigidities governing the house construction process, are likely to be fairly reliable.

5.1.5   The objective is to release the HSUI that can be used by housing related agencies as the basic or core predictor. The agencies can combine the index with other short term indicators and policy variables to come to more definitive projections of housing activity.

5.2   *Periodicity*

5.2.1   The Group observes that the present system of data collection, as reported by National Building Organization along with its formats may be fine tuned to obtain the requisite data on building permits on a quarterly basis. This would constitute the basic information for constructing the Housing Start-Up Index.

5.2.2   Conducting a field survey with adequate coverage of the urban centres that can be representative of the country as a whole would be the first step in institutionalising a system for regular release of HSUI. The Group recommends that this survey may be conducted once in three years for estimating/updating the start rate matrices for each of the selected centres. These start rates are to be used for computing the housing start figures in each of these centres using the data on building permits. These can then be aggregated to construct and release the HSUI on a quarterly basis.

5.2.3   The field survey for estimating the start rate matrices can be done in two phases. In the first phase, the data on building permits can be collected in the selected centres using Survey on Building Permits (SBP). The reference year for this survey would have to be three to four years before the date of conducting the Survey on the Housing Starts (SHS). The SHS is to be conducted in the second phase to determine the percentage distribution of the housing starts over the eight quarters (after the issuance of the permit, including the quarter of issuing) and thereafter and build start rate matrices in each of the centres.

5.3   Geographical Coverage

5.3.1   The Group recommends that as an initial effort, the HSUI may be launched based on such coefficient matrices constructed for 6 Metros and a select sample of Class I towns based on SBP and SHS. Small towns can be included at a later stage as it is found from the pilot survey that the number of housing starts in small centres is relatively less.

5.4   Sampling Method and Tools

5.4.1   The urban centres can be selected based on the number of permits issued as per the latest available data on building permits, by using probability proportional to size (PPS) method, so as to adequately represent of the total building permits issued at All India level. At the initial stage, when the exercise is limited to large cities only, appropriate adjustment in the method of city election may be made to make the sample representative of all class I cities.

5.4.2   Survey of Building Permits: The SBP can be conducted by collecting the details of all permits issued for new residential construction from permit issuing authorities of the selected centres, using Schedule –Part 1 given in Annex 7.

5.4.3   Survey on the Housing Starts: In this survey, a sample of permits issued for new residential buildings can be identified. The follow-up of this sample permits can be done by canvassing the Schedule–Part II of the questionnaire, as given in Annex 7, to the person responsible for the permit or the concerned builder. Information relating to starting of construction and other necessary aspects are to be obtained through this survey. A stratified sampling procedure as described in section 3.2.4 can be adopted for this survey in each center.

5.5   *Estimation*

5.5.1   <u>Housing Starts Rate Matrix:</u> From the data collected from Schedule –Part II, the number of sample houses started in all the succeeding quarters, staring from the quarter in which the sample permits are issued till the latest period can be obtained. In all the centres where pilot study has been conducted, it was noted that within 8 quarters of permit issue, more than 95 per cent of the construction gets started. Hence, all the housing units where construction started, after two year of issue of permits (8 quarters including the quarter in which permits are issued) are added to obtain the final residual aggregative coefficient. Based on this data corresponding to each quarter of year, 9 start rates (1 for the quarter in which permits are issued + 7 for the 7 succeeding quarters + 1 for all the starts after 1 year) corresponding to 4 different quarters of a year are worked out. Thus we estimate a 4x9 matrix of start rates (coefficients). This matrix can be transformed as described in section 3.3.3 to get the housing start rate matrix. The methodology for estimating housing start figures for release on a regular basis has been discussed in detail in section 3.3 of this Report.

5.5.2   It is found in the pilot study that the information on the number of housing units in a MHU is not available in most of the urban centres. The Group suggested that SHS can also be used to identify the average number of housing units in a MHU for different cities. This would be useful for estimating the number of housing units authorised to build through permits, in cases when the figure is not available in official records relating to issuance of permits.

5.5.3   <u>Housing Starts:</u> These start rate (coefficient) matrices can be used to obtain the housing starts for the selected Metros and Class I towns for which the regular data on building permits can be obtained without any difficulty on quarterly basis. The number of houses started in a particular centre for a particular quarter can be obtained by multiplying the start rates coefficients with the corresponding number of permits issued in that quarter and

preceding quarters. The choice of the set of start rates to be used depends on the quarter for which the start rates are to be estimated. The methodology for compiling the housing starts is described in detail in section 3.4 of this Report.

5.5.4   Housing Start-Up Index: Separate HSUI can be compiled for different Classes of the centre (for example, Metros, Class 1 cities etc.) as well as for All India level using the year of Survey on Housing Starts as the base year.   The formulae given below can be used to estimate the HSUI for the quarter *t*.

$$HSUI_t = \frac{\sum_{i=1}^{n} A_{i0} S_{it}}{\sum_{i=1}^{n} A_{i0} S_{i0}}$$

Where **n** is the number of centres, **Ai0** is the average FSA of the ith centre in the base period; **Sit** is the number of housing starts in the tth quarter in i^{th} centre; **Si0** is the number of housing starts in the base period in i^{th} centre

5.6   Institutional Arrangement

5.6.1   A Standing Committee may be set up by the Reserve Bank of India to launch this initiative, monitor its progress, commission and overview the surveys for constructing start up matrices and consider increasing the scope and coverage of HSUI over time. It would have official members from the Central Statistical Organisation, office of the Registrar General, Ministry of Housing and Urban Poverty Alleviation and other concerned government departments, besides a few experts in the field.

5.6.2   National Buildings Organisation, Ministry of Housing & Urban Poverty Alleviation, Government of India is the nodal agency for collection and dissemination of housing and building construction statistics in the country. The Group recommends that NBO may collect the data on building permits issued for the new residential buildings in various centres (metros and class I cities at the first stage) across the country on a quarterly basis under the overall guidance of the Standing Committee.

5.6.3   Surveys to determine housing starts coefficients may be conducted every three years to examine the validity of the matrix in use and identifying the areas where further research needs to be done to increase reliability of the estimates. RBI may coordinate with NSSO and NBO for the survey, based on which start rate matrices can be constructed for compilation of the HSUI.

5.6.4   An Advisory Committee on HSUI may be formed at NBO to guide and oversee the entire process of compilation of housing permit data from concerned local bodies and the Department of Economics and Statistics of the state governments, as specified by the Standing Committee, on a regular basis. The Advisory Committee may have members from Reserve Bank of India, National Statistical Commission, Central Statistical Organisation, National Sample Survey Organisation, Directorate of Economics and Statistics of select states that have a large number of Class I cities.