Housing Demand Assessment Model
Case Study of Mumbai, India

The National Housing and Habitat Policy, 1998 (NHHP), Government of India, advocates adoption of demand-driven approach in the formulation of housing policies and programs. The Government of India has reiterated this approach in its National Plan of Action outlined in the National Report, presented at the UN Habitat II conference. It is strongly felt that this approach would meet the aspirations of the people and their preferences for various types of housing solutions.

1. Housing Need and Demand: Conceptual Issues

The housing schemes, both in public and private domain, must be designed on the basis of an assessment of the effective demand or "willingness to pay" for various types of housing solutions by different segments of the city population. Each housing solution may be characterized by distinct features which require specific analysis. A demand assessment analysis may have three dimensions, namely: need-based demand, market demand and effective demand.

The need-based demand is the ideal solution. In case of housing, it is a dream solution that may not necessary be related to the affordability and capacity to pay for the product. As such, it is determined by demographic factors and the un-constrained utility maximization principle. The market demand is more realistic and takes into account the willingness schedule of the individuals and therefore has an implicit price-quantity relationship. However, it does not adequately capture the capacity to translate the willingness to pay principle into practice, namely because it does not give full consideration to the financial parameters like capacity to mobilize resources and servicing the same.

The effective demand is the demand for a product at a given price, taking into account all the economic and financial factors on the demand and the supply side. The Paper examines the third category of demand, namely, the effective demand.

2. Demand Model

There are two alternative assumptions that can be invoked while developing a demand model for a product. These are (i) the product is a composite good; or (ii) that it is a heterogeneous commodity with diverse attributes. Housing cannot be assumed to be a composite good since its characteristics vary within a reasonably large geographical region. Therefore, for developing the housing demand model, it is assumed
that housing is a heterogeneous commodity.

Housing solutions are characterized by a bundle of diverse attributes, which largely influence its demand. Heterogeneity is reflected in the size of the unit in terms of both covered and open area, quality of construction, space utilization and design, connections to utilities (infrastructure), quality of neighborhood, and access to employment and commercial activities. It is therefore, important to assess people's willingness to pay for housing, in terms of what they are willing to pay.

The model attempts to estimate the demand for housing units, with specified attributes, by households in Mumbai. The model may be used by housing developers, engaged in construction of a wide range of products, to assess the attitude, willingness and the ability to pay of the potential buyers for their products. The micro-level housing demand assessment in Mumbai would also be useful for phasing out housing development programs to match supply with demand. This would avoid build up of inventory of unsold housing stock and locking up of funds, a phenomenon observed in the city during the period 1995 - 2000.

A. Conceptual Issues

Housing demand is a function of the price of the housing product offered in the market and its characteristics. In any product market, there are two types of prices, the offer price and the bid price. The offer price relates to supply price and is cost-based. The components of house cost are land, construction of the housing unit, social amenities, community facilities, infrastructure both off-site and on-site, and institutional costs. In the case of housing products offered by public agencies, offer prices may have an element of subsidy or may be cost-plus subsidy to low-income groups while the private sector product has a profit component.

The different components of housing cost indicate that the offer price would vary proportionately with size and quality of services and amenities. *Prima-facie,* it is assumed that there are five types of units in the market, with their prices varying between Rs. 3 lakh and Rs. 15 lakh. The thrust of the Paper is to analyze the demand for housing units in these five categories.

The demand price for the housing units reflects the potential buyer's willingness to pay (WTP). The demand price is closely linked with the level of affordability of the household that, in general, is captured in their income. Income can be classified into two categories - present income, which is a flow, and permanent income, which is the average discounted value of income over the total earning period. It is commonly postulated that the demand for housing is related to the expectations of households about their economic well-being over a long time horizon. The affordability of the potential buyers for housing products offered in the market relates to their ability to mobilize the Initial Down Payment required for participating in the housing market and the ability to service the house loan on the terms stipulated by the lending agencies.
B. Housing Finance and Related Issues

The resource mobilization capacity of households and their ability to repay home loans are the two components of housing affordability of the potential buyers and their measurement is important in developing a housing demand assessment model and performing empirical analyses. The first component relates to own saving levels, and the ability to contract loan from the Housing Finance Institutions (HFIs), employers (in case of employees) and informal sources. The resource mobilization capacity of potential buyers for housing can be measured and may be based on the data on their self-assessment, generated through primary surveys. The implicit assumption been made in the model is that there are no supply side constraints in the availability of housing loan from HFIs, and that the only determinant would be the loan servicing capacity of the potential buyers. Generally it is difficult to assess the creditworthiness of an individual through a survey. The Paper assumes that household expectations about the amount of loan from the HFIs will be fulfilled. Current income/present income can be a proxy for the second component but norms would have to be evolved to qualify income as a proxy determinant of the potential buyer's capacity to meet the periodic repayment liability. The norm used in this Paper has been defined in the next section. The other determinants are the level of monthly saving, rental payments by tenant households and maintenance changes.

The definition of the product is an important issue in the housing demand analysis. A typical characteristic of the housing market is the lack of borderline in the definition of the product. The housing unit may be the structure, or the discounted value of the services to be obtained from the unit. It also may be the structure, facilities (infrastructure) and location. It is clear that households decide in choosing a dwelling to "consume" a certain level of private and public services; they also decide to consume a certain level and services in utilities, which may be an integral part of the housing package. However, empirically this issue is often overlooked.

C. Determinants

A housing demand assessment model is developed to identify groups of potential buyers for housing schemes. The necessary condition for a household to participate in the housing market is its requirement of a new housing unit and also, the time span over which the new unit will be required. The time span assumed for the model is 5 years, and an estimation of housing demand over the next five years is estimated. Therefore, the necessary condition for a household to be considered as a potential buyer is that the household requires a housing unit within 5 years from the date of the assessment. In addition, an important consideration for the identification of the potential buyer is the ability to afford the new unit that will come into the housing market. The endeavor is to reconcile housing requirement of the households with their affordability. In the above perspective, those households are considered as potential buyers whose physical housing requirement matches with their level of affordability.
An important issue that needs to be evolved is the definition of the borderline, if there is a mismatch between the physical requirement and affordability. Conceptual clarity is required in the case of households that require, for example, a bigger unit than what the household can afford. The question then is whether such households are potential buyers. The options open in the case of such households are either to choose a smaller unit or postpone the consumption. The households will opt for a smaller unit only if a certain minimum level of per capita space is available for its members. If this can be adjusted in the available space given its size, they may opt for consumption in the immediate future or they may postpone the decision to purchase a new unit.

Although it is very difficult to predict the actual behavior, it is assumed that in case of mismatch between the physical housing requirement and affordability, the household will postpone the purchase of the new unit rather they opt for a sub-optimal house size.

**D. Analytical Value of the Model**

The housing demand assessment in Mumbai would facilitate an analysis of the potential buyers, given a set of prices for new units. At the same time, the demand assessment will reveal the preferences of the potential buyers for housing products of varying characteristics, including design, access to infrastructure facilities, location and distance from the work place. The main thrust is to match the quantitative demand at a given price, with the tastes and preferences of the potential buyers as given.

The housing demand assessment model would be sensitive to the changes in house price, rate of interest charged on home loan by HFIs/employer/informal financiers, and the tastes and preferences of the people. An increase in the price of the unit may place the housing solutions out of reach of certain sections of the potential buyers and consequently, they may fall out of the housing market. Similarly a change in the rate of interest affects the affordability of the potential buyers. An upward revision of the interest rate will raise the cost of borrowing and the monthly repayment liability for the borrowers. Since the preferences of the potential buyers for certain housing characteristics are governed by their socio-economic status, these preferences are somewhat stable over time. However, at the same time, tastes and preferences or location-specific factors may change within a short period.

**3. Framework of the Model**

The demand for housing may be mathematically expressed as:

\[ Y = F(A, T), \]

where

variable \( Y \) is the demand for housing unit. The explanatory variables are affordability (A) and tastes and preferences (T).
The definition of `Y', the dependent variable, is the most critical aspect of the demand assessment. The above function is different from the usual demand function, namely, the Marshallian Demand function, as the price of the commodity in question, housing, has not been included in the equation. Therefore, the dependent variable is not the "Quantity demanded". If at all 'Y' denotes the quantity demanded, then the measure of 'Y' would denote space and the estimated equation will denote a space affordability relation, which is not the subject of the Paper. Also, if at all 'Y' is the expenditure, then the definition 'Y' and 'A' would be more or less synonymous. In this case, the equation is modeled as the demand behavior for durable goods\(^7\), then a certain level of conceptual clarity for the dependent variable would be attained. The definition of `Y' has been modified according to the specific objectives of the Paper. The explained variable `Y' is a proxy for assessment of the decision of an individual/household to participate in the demarcated housing market. The central question is how this behavior will be observed? A households' willingness to participate in the housing market will be driven by its physical need, resource mobilization capacity and tastes and preferences. The bid price of the household is formed after assessing his affordability and tastes and preferences. Therefore, the bid price of a household is an indicator of his willingness and capacity to participate in the market. If the bid price exceeds the minimum required level of affordability, it is assumed that the household will participate in the market given with affordability and tastes. The dependent variable 'Y' is a dummy variable and the definition is as follows:

\[
Y = \begin{cases} 
1, & \text{if participated in the market.} \\
0, & \text{otherwise} 
\end{cases}
\]

The variable 'A' has two components, relating to the ability of the potential buyers to (i) mobilize the down-payment component; and (ii) meet the monthly repayment liability. The tastes and preference are represented by a set of dummy variables.

The form of the complete function may be written as

\[
Y = A + A_1 W_1 + A_2 W_2 + d_1 D_1 + \ldots + d_{11} D_{11}
\]

where,

\[
\begin{align*}
W_1 & = \text{stock of savings} \\
W_2 & = \text{flow of savings} \\
D_s & \text{are defined as follows:} \\
D_i & = \begin{cases} 
1, & \text{if ith attribute is present} \\
0, & \text{otherwise} 
\end{cases}
\]

The above model is an example of a Linear Probability Model (LPM). The interpretation of `Y' is

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\(^7\) For further details see William J. Greene, 1996, Econometric Methods, and Pindyck and Rubenfeld, 1996, Applied Econometric Theory and Practice
crucial to the housing demand assessment. The `Y' is interpreted as the "probability that an individual will buy a house given the values of $W_1 W_2 ... D_i$. The `Y' explain the chance of occurrence of an event with some prior knowledge. Therefore, statistically `Y' is regarded as the conditional expectation of an event.

There are four explanatory variables in the model. These are $W_1, W_2, D_1, D_2$. The $W_1$ has been defined as stock of saving, plus loan from all sources. The question is now how $W_1$ will be observed. The variable $W_1$ is observed on the basis of sample data on housing finance plan of potential buyers; resources to be mobilized from own savings, sale of household assets, other sources and loan from employer/informal financiers. Therefore,

$$W_1 = (\text{Own savings + sale of HH Assets + Others + Loan from Employer/Informal Financiers}).$$

$$W_2 = (\text{Monthly Household Savings + Monthly Rental + Contributions to Co-operative Society + Maintenance Expenditure + Property Tax}).$$

The crucial question is how the dependent variable will be observed. Sample data have been generated on the preferred house price for the potential buyers. Assuming that the cost of construction of housing unit would be Rs. 1,200 per sq. ft., it is possible to define the size of the units that can be provided to the potential buyers given the house price preferred by them. If the house size defined on this basis is greater than or equal to the physical requirement of the household, as indicated by the data on the preferred size of the unit by the potential buyers, then the potential buyer is expected to make the housing investment. Consequently, the value of `Y' will be taken as `1', otherwise the value of `Y' will be considered as 0.

In the first stage, 11 dummy variables have been used to capture the tastes and preferences of the potential buyers. The list is presented below. This is an important aspect of the demand assessment. As noted earlier, the tastes and preferences consist of a range of housing characteristics and it would be difficult to produce an exhaustive list. In this Paper, two characteristics are focused, namely, the design and the location, based on the feedback from the potential clientele. With respect to design, five aspects have been considered which are location of kitchen in the dwelling unit (DU), size of the kitchen, separate or combined toilet and bathroom, toilet/bathroom attached/detached from the bedroom and provision of separate space for domestic help. As many as six location factors have been considered and these are proximity to workplace, lower cost of construction, good quality of construction, reputed builder, good habitat services, and good transport connectivity.

\[\text{1998 prices}\]
As regards the design factors, the dummy variables are:

\[ D_1 = \begin{cases} 1 & \text{if the kitchen is provided at the preferred location} \\ 0 & \text{otherwise} \end{cases} \]

\[ D_2 = \begin{cases} 1 & \text{if the kitchen is of the proposed size} \\ 0 & \text{otherwise} \end{cases} \]

\[ D_3 = \begin{cases} 1 & \text{if the specification of separate/combined toilet/bathroom is met} \\ 0 & \text{otherwise} \end{cases} \]

\[ D_4 = \begin{cases} 1 & \text{if the specification of toilet/bathroom attaches/detached from the bedroom is met.} \\ 0 & \text{otherwise} \end{cases} \]

\[ D_5 = \begin{cases} 1 & \text{if the desired space for domestic help for household chores is provided.} \\ 0 & \text{otherwise} \end{cases} \]

Similarly another six dummy variables are defined for six types of location factors considered in the primary survey.

\[ D_6 = \begin{cases} 1 & \text{if housing site is close to workplace} \\ 0 & \text{otherwise} \end{cases} \]

\[ D_7 = \begin{cases} 1 & \text{if housing under have lower cost} \\ 0 & \text{otherwise} \end{cases} \]

\[ D_8 = \begin{cases} 1 & \text{if quality of construction is high} \\ 0 & \text{otherwise} \end{cases} \]

\[ D_9 = \begin{cases} 1 & \text{if housing site has been developed by professional builder} \\ 0 & \text{otherwise} \end{cases} \]

\[ D_{10} = \begin{cases} 1 & \text{if housing units provide easy access to habitat related services} \\ 0 & \text{otherwise} \end{cases} \]

\[ D_{11} = \begin{cases} 1 & \text{if location has good transport connectivity} \\ 0 & \text{otherwise} \end{cases} \]

4. Estimation and Prediction

The LPM has been estimated by the standard method of weighted least squares (WLS). The efficiency of the estimators will depend on the information content of the surveyed sample. In the first stage, Ordinary Least Square (OLS) regression method has been applied to predict variance of the error terms. In the second stage, predicted value of the variance has been used to normalize the data set. The normalized data set complies with the assumptions of the classical Linear Regression Analysis. Subsequently, OLS has been applied to estimate the regression coefficients. Problems of multicollinearity and heteroscedasticity were examined and controlled for while performing the analysis.

The housing units have been grouped into five categories for estimation of the market demand. For
each of these categories, the down payment component and the monthly repayment liability have been estimated. These are calculated on the basis of the norm of 40 per cent down payment and 60 per cent home loan, which is generally adopted by HFIs. It is assumed that the amortization period of loan would be 13 years and the rate of interest 16 percent per annum. Table 1 presents the \( W_1 \) and \( W_2 \) for each type of unit.

The values of the explanatory variables corresponding to each category have been plugged in the estimated equation. The resultant value of the explained variable denotes the probability of the demand for housing units in each category. In other words, it will be the expected proportion of household demanding a unit in each of the category. Therefore, \( Y_A, \ldots, Y_E \) are predicted probabilities.

In the next step, the sample households have been classified into five categories, corresponding to five types of housing units, with respect to the affordability level. These categories are presented in Table 1. The analysis of other demographic variables will estimate the number of households in each of the five categories. These are say \( H_A, \ldots, H_E \).

### Table 1: Down Payment and Periodic Payment for Housing Units

<table>
<thead>
<tr>
<th>Category</th>
<th>Price (Rs. in lakh)</th>
<th>Down Payment (Rs. in lakh) ((W_1))</th>
<th>Monthly Payment Liability (Rs.) ((W_2))</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>3</td>
<td>1.2</td>
<td>2,748</td>
</tr>
<tr>
<td>B</td>
<td>5</td>
<td>2.0</td>
<td>4,580</td>
</tr>
<tr>
<td>C</td>
<td>7</td>
<td>2.8</td>
<td>6,412</td>
</tr>
<tr>
<td>D</td>
<td>10</td>
<td>4.0</td>
<td>9,160</td>
</tr>
<tr>
<td>E</td>
<td>15</td>
<td>6.0</td>
<td>13,230</td>
</tr>
</tbody>
</table>

Source: SDS Survey, 1998

The effective demand in each category is as follows:

\[
E_A = Y_A * H_A \\
E_B = Y_B * H_B \\
E_E = Y_E * H_E
\]

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9 Based on terms of home loan prevailing in 1998
5. Results

A primary survey of 540 households was conducted among the potential buyers of the housing units. The majority of respondents belong to Economically Weaker Section (EWS), Low-income Group (LIG) and Middle-income Group (MIG) categories. The respondents are spread over 21 different localities in Mumbai.

The attributes considered in the model are design and location. Five aspects of the house design have been examined in the analytical framework of the model, in the first stage. The best practice observed in the field of econometric model building is to restrict the number of dummy variables to the minimum. In view of this, just 1 dummy variable has been retained on the design characteristics of the unit. The dummy is defined as follows:

\[ D_1 = 1 \text{ if kitchen is at the preferred location and bathroom and toilet are separate} \]
\[ = 0 \text{ otherwise} \]

Other aspects of design, that is size of the kitchen, space for domestic help, among others, are of supplementary nature. These aspects have suffered from the "item non-response problem", that is the potential buyers have not as yet decided on these issues. The "item non-response problem" is among the supplementary attributes and, therefore, the common practice of dropping these variables from the model has been adopted. However, this would not affect the predictive efficiency of the model.

With respect to the location characteristic, the proximity to workplace has been considered. Other location specific factors have suffered from the "item non-response" problem. In view of the "item non-response" problem the model has been modified. The modified model is as follows:

\[ Y = A + A_1 W_1 + A_2 W_1 + A_2 W_2 + d_1 D_1 + d_2 D_2 \]

where,
\[ D_1 = 1 \text{ if toilet/bathrooms separated} \]
\[ = 0 \text{ Otherwise} \]
\[ D_2 = 1 \text{ if proximity to workplace important for the decision about the location} \]
\[ = 0 \text{ Otherwise}. \]

The estimated results are presented in Table 2.
Table 2: Results of the WLS estimation of the LPM

<table>
<thead>
<tr>
<th>Variation</th>
<th>Coefficient</th>
<th>t-Ratio</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>-0.009</td>
<td>-0.106</td>
<td>Not Significant</td>
</tr>
<tr>
<td>W₁</td>
<td>0.00003</td>
<td>5.4</td>
<td>Significant</td>
</tr>
<tr>
<td>W₂</td>
<td>0.0004</td>
<td>4.06</td>
<td>Significant</td>
</tr>
<tr>
<td>D₁</td>
<td>0.4</td>
<td>18.5</td>
<td>Significant</td>
</tr>
<tr>
<td>D₂</td>
<td>0.05</td>
<td>2.06</td>
<td>Significant</td>
</tr>
</tbody>
</table>

Source: SDS Estimates, 1998

R² = 0.73  Adjusted R² = 0.72
Observation = 479
F= 317.44

All explanatory variables except the intercept are statistically significant according to the t-test. This is suggestive of the fact that all four variables have significant effect on the determination of Y. The R², the typical measure of "goodness of fit" is 0.72, which is considered as reasonable in the context of LPM Models. The "goodness of fit" has also been tested by the F-test. **The result of the F-test shows that the model as a whole is statistically significant.** It implies that variables do have a significant effect on the determination of Y, the explanatory variables taken together explain the market participation of the households.

The important aspect of the result are the low values of the coefficients of W₁ and W₂ Therefore, a small change in the values of W₁ and W₂ will increase the market participation rate marginally. Also, among the potential buyers, market participation rate will not differ significantly between the different levels of affordability. In other words, the need for housing solution is equally strong among the different strata of the affordability levels of the households.

The coefficient of D₁ is positive and statistically significant. The households have shown preference for separate toilet and bathroom. Consequently, the units should be designed in such a manner that the toilet and bathroom are separate.

The co-efficient D₂, the dummy variable related to location factor, is positive. It is suggestive that the household market participation will increase if the units are located close to the work places. However, this factor will have marginal effect and will increase the market participation rate by 0.5 per cent.

Table 3 presents the market participation rate of the households for different categories of housing units. The participation rate will increase with the level of affordability. The category A units will have a market participation rate of 44 per cent, which is suggestive of the fact that 44 per cent of the eligible potential buyers (those who can afford a unit of Rs. 3 lakhs or below) will actually participate in the housing
Table 3: Market Participation Rate in Different Segments of the Housing Market

<table>
<thead>
<tr>
<th>Category</th>
<th>Market Participation Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>49.0</td>
</tr>
<tr>
<td>B</td>
<td>51.0</td>
</tr>
<tr>
<td>C</td>
<td>55.0</td>
</tr>
<tr>
<td>D</td>
<td>59.0</td>
</tr>
<tr>
<td>E</td>
<td>67.0</td>
</tr>
</tbody>
</table>

Source: SDS Estimates, 1998

In view of these results, it is important to decide on the distribution of the potential buyers with respect to the level of affordability. The knowledge about the universe of the potential buyers is required to draw the distribution of potential buyers. In the absence of the knowledge about the universe, information of the sample is used to estimate the percentage distribution of housing demand in different categories. Table 4 presents the sampling distribution of households as per the levels of affordability. Again a one to one correspondence can be drawn between the affordability and the price of units based on $W_1$ and $W_2$. The diagonal boxes of the Table 4 indicate the minimum required combination of $W_1$ and $W_2$ for each types of housing unit. The box at the extreme left corner denotes the minimum required combination of $W_1$ and $W_2$ for units priced below Rs. 3 lakh. Therefore, all households that are at different boxes in the column 1 and the row 1 will have the ability to purchase any unit priced below Rs. 3 lakh. Similarly, the percentage demand for units will be computed for other categories. Table 5 presents the distribution units between various categories, derived from Table 4.

The demand for units is higher in the lower priced categories. As many as 92 per cent of the units that are likely to have a over and will be in categories A and B. The rest of the units will be distributed among other categories.
Table 4: Sampling Distribution of Households’ Affordability

<table>
<thead>
<tr>
<th>W2 (in Rs. '00)</th>
<th>W1 (in Rs.)</th>
<th>&lt;1200</th>
<th>1200-2000</th>
<th>2000-2800</th>
<th>2800-4000</th>
<th>4000-6000</th>
<th>&gt;6000</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;27</td>
<td></td>
<td>22.4</td>
<td>7.4</td>
<td>5.2</td>
<td>2.0</td>
<td>3.0</td>
<td>3.7</td>
<td>43.7</td>
</tr>
<tr>
<td>27 - 46</td>
<td></td>
<td>1.2</td>
<td>1.7</td>
<td>-</td>
<td>0.5</td>
<td>1.0</td>
<td>1.0</td>
<td>4.6</td>
</tr>
<tr>
<td>46 - 64</td>
<td></td>
<td>0.7</td>
<td>0.2</td>
<td>-</td>
<td>-</td>
<td>0.7</td>
<td>0.7</td>
<td>1.8</td>
</tr>
<tr>
<td>64 - 92</td>
<td></td>
<td>3.5</td>
<td>0.7</td>
<td>-</td>
<td>-</td>
<td>1.0</td>
<td>1.0</td>
<td>5.2</td>
</tr>
<tr>
<td>92 - 132</td>
<td></td>
<td>10.0</td>
<td>2.7</td>
<td>2.7</td>
<td>0.5</td>
<td>0.2</td>
<td>0.2</td>
<td>16.1</td>
</tr>
<tr>
<td>&gt; 132</td>
<td></td>
<td>17.2</td>
<td>6.7</td>
<td>2.0</td>
<td>2.2</td>
<td>0.5</td>
<td>0.5</td>
<td>28.6</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>55.0</td>
<td>19.4</td>
<td>9.9</td>
<td>5.2</td>
<td>7.1</td>
<td>7.1</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: SDS Survey 1998

Table 5: Effective Demand for Housing Units - Distribution of Units Between Different Price Categories

<table>
<thead>
<tr>
<th>Category</th>
<th>Price (Rs. lakh)</th>
<th>% of Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>&lt; 3</td>
<td>76.3</td>
</tr>
<tr>
<td>B</td>
<td>3 - 5</td>
<td>13.7</td>
</tr>
<tr>
<td>C</td>
<td>5 - 7</td>
<td>5.6</td>
</tr>
<tr>
<td>D</td>
<td>7 - 10</td>
<td>3.7</td>
</tr>
<tr>
<td>E</td>
<td>10 - 15</td>
<td>0.2</td>
</tr>
<tr>
<td>F</td>
<td>&gt; 15</td>
<td>0.5</td>
</tr>
</tbody>
</table>