HOUSING AND ENVIRONMENTAL STANDARDS AS A PRODUCT OF THE FREE MARKET MECHANISM, AN EXAMPLE: ANKARA

Tanik OKYAY
Vildan YAZAR
Ozcan ALTABAN

INTRODUCTION

The neo-classical approach in location theory has long been the traditional tool for analysing the urban market. However, criticisms of the neo-classical approach have recently appeared and alternative methods of analysis have been discussed in Harvey and other writers including Castells. The arguments against the neo-classical approach indicate its inadequacy in explaining many of the problems existing in the urban housing market and center their attack on its assumption that "use value" and "exchange value" of commodities are always equivalent or identical.

This paper attempts to make a contribution to this criticism by analysing empirical data from the city of Ankara. Although the concepts of "use value" and "exchange value" possess considerable analytical usefulness, the transformation from these theoretical concepts to the actual world is often difficult to make. The data we have selected could only be accepted as proxy indicators of "use value" and "exchange value". A further difficulty arises due to the existence of multiple definitions of "use value" in neo-classical economics. "Use value" is closely related to the concept of "utility" while the concept "utility" itself becomes hazy at the boundaries of micro and macro economic analysis. In the analysis of Ankara household surveys this problem with regard to the definition of "use value" becomes manifest.

A further elaboration of the existing debate on urban location theory is related to the fact that in most of the cities of the underdeveloped world there exist not a single but usually two separate housing markets. One of these housing markets serves upper income groups while the other serves the lower income groups. The prices in each market are determined at distinctly separate levels. Just the same this paper does not directly deal with the problem of two housing markets (excluded in the neo-classical approach), but rather with the
argument on whether the equivalence of "use value" and "exchange value" in any one market is a valid assumption. But then the existence of two separate markets in the city of Ankara is an inescapable fact, so we have selected our examples from two distinct housing areas although we have analysed each market separately within itself.

The first section of this paper gives a brief review of the arguments on the concepts of "use value" and "exchange value" in relation to the attitude of various interest groups active in the urban housing market. In the following sections "use value" is analysed with regard to the indoor standards of dwellings as well as the environmental standards.

The neo-classical approach provides a very inadequate explanation for the deterioration of environmental standards in most parts of the city. One section in this paper relates the deterioration of environmental standards to the discrepancy between "use value" and "exchange value".

The last section studies "exchange value" of dwellings with regard to rent and income and to the distribution of resources in the housing market.

"USE VALUE" AND "EXCHANGE VALUE" IN THE HOUSING MARKET

According to the neo-classical economists who have developed concepts on the location of uses in urban areas, "urban land rents are determined by the value of the land's marginal productivity" and "the land's productivity is determined by the characteristics of the land itself and by transportation costs to relevant markets". The land which has the highest marginal productivity is used by those who pay the highest rent, as a result of which, the urban land is distributed among different uses in the most productive way. What determines this distribution among uses is the equilibrium between supply and demand. The land use pattern is created by the market forces. The use of land determines the "exchange value" of the land. This "use value" and the "exchange value" are the same. On the other hand, Adam Smith explains the difference between use value and exchange value as follows:

"The word VALUE has two different meanings:
1) Sometimes it expresses the utility of some particular object.
2) Sometimes it expresses the power of purchasing other goods which the possession of that object conveys. The one may be called 'value in use', the other 'value in exchange'."

"Use value and exchange value have no meaning in and of themselves...They take on meaning through their relationship to the situations and circumstances under discussion." It is not correct to consider use value and exchange value independent of each other. In a purely capitalistic economy a commodity gains an exchange value only when it has a use value. A commodity comes into being through the unity of use value and the exchange value. It is only when a producer offers his products to the market for the use of others that his goods gain an exchange value. In a society where there is more than one producer and more than one user, the exchange value is "the proportion in which the use values are exchanged for each other".

Some commodities may have a very high use value while they have little exchange value. The use value is different for each user.
For example, a commodity which has a high use value for a person, may have no use value at all for another, therefore, its exchange value is very low. When a commodity has a use value for a number of people then it gains an exchange value.

The urban housing market however is not a purely capitalistic economy. There are varying levels of public intervention in almost every city. Therefore in cities some commodities having high use value for people may have no exchange value. Public areas and roads fall under this classification. These areas are devoted to public use and they cannot be exchanged, although they have a very high value in use. In spite of the fact that they have no value in exchange, such uses contribute highly to the exchange values of commodities near them. This is true for natural resources, such as lakes or the sea. Neither can be exchanged, but they create high exchange values around them.

INTEREST GROUPS IN THE HOUSING MARKET

i) Tenants:
Tenants are those people who use a dwelling for a period of time. What is important for them is the use value of the dwelling. A building ages with time therefore some expenses become inevitable for its maintenance. Maintenance expenses serve the function of upkeeping the building's use value. When a building deteriorates its use value for one social group declines while its exchange value may not always decrease; another social group may be ready to pay a relatively high price for that building. This social group applies different criteria for assessing the use value of the dwelling.

It can be argued that the rent reflects exchange value. The rent can be considered as the exchange value divided into regular payments. In neo-classical economic analysis rent is assumed to be closely related to use value. However, in reality the rent may be determined by various other factors in addition to the use value.

ii) Landlords:
Some of the Landlords—live on their own property, while others buy property for letting out. For the owner-occupiers the use value of the dwelling has greater significance, but for the professional landlords the dwelling is regarded only as a means of exchange. They create use value for others in order to obtain an exchange value for themselves. For either kind of landlord housing is an investment and the capital invested in it should return back.

Unlike the exchange values of other commodities, the exchange value of a building and of the land on which the building is constructed, usually increases with time. This increase in exchange value is a return to the owner even if the building is not exchanged. The owner-occupiers benefit from it in the sense that they do not have to pay increasing rents to another landlord. Furthermore, they feel secure since their money is invested in a commodity the value of which is increasing every year.

In short, whether the landlords occupy or rent out their property and whether they sell it or not, they benefit from the increases in the exchange values. If they rent out their property their income from the rents will increase, if they live in their own property they will not have to pay increasing rents.
Investment in a building is different from that in a nondurable commodity. For example when an investment is made in a machine, the machine depreciates and when it is totally depreciated its use value decreases to zero.

The value of a building seldom decreases to zero. There is always a social group which is ready to pay for a run-down building. A building may lose its use value for one social group, but it may still have a value for another group. In addition to this, the value of the urban land on which the building is constructed rarely decreases.

These assumptions are valid mostly for the fast growing cities of the underdeveloped world and where there is always a housing demand due to increasing population.

iii) Realtors

Realtors can be very influential on the exchange value of the dwellings in the market. They act as intermediaries between the buyers and the sellers, and they charge transaction costs for their service.

Realtors are generally more effective on the exchange values of land in the future development areas at the outskirts of the city. They know well that these areas will gain value within a short period of time, and they promote an artificial inflation of exchange values. In Turkish cities, working in co-operation with the owners of the land outside the city limits, they initiate urban development with the help of the system of "shared title deed." Their substantially form a strong group to force the authorities to bring infrastructure and other public services to these areas. In this way they play an active role in the determination of the urban form and the direction of urban development.

iv) Contractors:

Contractors enter into the process of housing production to obtain exchange values. But to realize exchange values for themselves they have to create use values for others, because if there is no demand for housing, there will be no exchange value. The aim of contractors is to construct as many buildings as possible.

Most of the contractors who operate in big cities of Turkey are small firms that perform small-scale business. They carry on construction on small, individual plots rather than on large areas and their initial invested capital is small. In the case of building individually owned flats, they obtain land from the land owners without any prepayment and they give them a number of flats depending on mutual bargaining. These firms provide dwellings for high-income groups. Since their own investment is small they want the full price of the dwellings to be paid by the buyer in a short period. Therefore they require a high amount of advance payment in cash. Only 10 percent of the necessary capital is provided by the contractor firms. The remaining 90 percent comes from the savings of the buyers and the land is provided by the owner.

The contractors replace the small buildings in the city with multi-storey apartments. Furthermore they force the authorities to permit higher buildings which results in high densities for which neither the existing infrastructure
12. Gecêkondus is a shelter, usually built by rural-urban migrants, without any regard to municipal laws or regulations on a piece of land not legally owned by the dweller or without the consent of the land owner. It is given a variety of names like "mushroom house" or "squatter house" most of which carry connotations stressing only one aspect of the phenomena. Therefore we prefer to use the particular Turkish word in this case.

nor the public services are sufficient. This decrease in service standards effect the use value of the dwellings negatively. The contractors, while trying to gain exchange values within the city by constructing as many buildings as possible, induce a decrease in use values.

It should be added as point of information here that in Turkey 90 percent of the resources allocated for housing is used by the private sector, but the buildings constructed by this sector satisfy the housing demands of only 3.3 percent of the total urban households. In other words, private firms use 90 percent of the resources to build officially acceptable dwellings while the greatest part of the housing demand is met by gecêkondus. 12

v) Producers of Housing Construction Materials:

Producers in Turkey, market such products as sanitary equipment, finishing materials and decorative elements rather than materials related to the basic structure of a dwelling. General producers of building materials like cement,
steel etc. are not included in this argument. Here we deal strictly with the process of dwelling construction.

These producers concentrate their production on bathroom and kitchen tiles, floor mattresses etc. serving a small but high-income market. These "make-up" materials increase the face value, hence the exchange value of dwellings, but add little to the use value (unless "visual satisfaction" is included as part of the use value in the user's utility function). Since realtors and contractors are interested in boosted exchange values there is always a demand for such decoration materials.

Flats decorated by these materials form an integral part of the upper income housing demand, although in reality a lot of other basic requirements are lacking. Once again, conspicuous consumption wastes resources at the expense of essential requirements like good plumbing, good services etc. The important point is that, this demand is largely an outcome of the contractor's i.e. of the supplier's policies. Evidently this argument does not make sense under the neo-classical assumption that the exchange value directly reflects the user's "satisfaction level." What the building materials producer performs is a technique of fancy-packing which is analogous to "product differentiation" in consumer goods. Thus the differences in the exchange values of rather similar dwellings can be explained not only by the differences in the values of land on which they are located but also by the differences in their decoration, i.e. their fancy-packing.

vi) Government

The government is normally expected to interfere in the housing market when there is a shortage of sufficient use value available for the consumers of housing.

The government also contributes directly to the use value of housing by providing infrastructure such as gas, electricity, water, sewage, roads.

Government can be effective on exchange values of dwellings. Improvement of road services to the housing area is one way to increase exchange values. Shaping the environment in a desirable way by physical planning such that it becomes attractive for higher income groups is another way of increasing exchange values through government action.

THE STUDY AREA - THE CITY OF ANKARA AND ITS SUB-AREAS

The city of Ankara is selected for an empirical analysis of use and exchange value concepts.

The Social Survey (referred to as S.S. from here on) which was carried out by the Ankara Metropolitan Area Planning Bureau (A.M.B.P.) in 1970, has provided some very interesting data on the subject.

Ankara is one of the fastest growing cities of Turkey (and of the world). It had a population of 70,000 in 1924. This has reached 1.7 million in 1975. In half a century the population of the city has increased 24 times.

If the population indices in 1940 are taken as 100 the index for the population of Ankara in 1970 is 4 times greater than the total population index for Turkey, 2.5 times that of the urban population index of Turkey and 3 times larger than the index for Istanbul (Table 1).
HOUSING AND ENVIRONMENTAL STANDARDS

Table 1 Population Growth Indices


<table>
<thead>
<tr>
<th>Census Years</th>
<th>Turkey General</th>
<th>Turkey Urban pop.</th>
<th>Cities with Population 100,000+</th>
</tr>
</thead>
<tbody>
<tr>
<td>1940</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>1945</td>
<td>105</td>
<td>107</td>
<td>118</td>
</tr>
<tr>
<td>1950</td>
<td>117</td>
<td>120</td>
<td>154</td>
</tr>
<tr>
<td>1955</td>
<td>134</td>
<td>158</td>
<td>218</td>
</tr>
<tr>
<td>1960</td>
<td>155</td>
<td>202</td>
<td>300</td>
</tr>
<tr>
<td>1965</td>
<td>176</td>
<td>251</td>
<td>427</td>
</tr>
<tr>
<td>1970</td>
<td>199</td>
<td>325</td>
<td>618</td>
</tr>
</tbody>
</table>

13. 1 U.S. Dollars is approximately equal to 35 T.L.

14. Some interesting results are obtained from a study made in Ankara to reveal the relations among the distance of residential areas of different income groups from the center, the rents paid for land and the density. (A. TREL, "A Study of the Residential Location Patterns of Different Income Groups in Ankara", Ankara: METU Faculty of Architecture, 1972, Unpublished M.C.P. Dissertation.) According to this study the high income groups are settled at about a distance of 4.2 km. from the center. The land prices are about 750 TL/sq.m. and the density is 122 persons/ha. in such areas. The middle income groups inhabit the areas which are 2.4-3.9 km. from the center and where the land prices are 425-2702 TL/sq.m. and the density is 264-586 persons/ha. The low income groups live in gecekondu areas (v.f.t.2) at the periphery of the city, 4.2-6.3 km. from the center. Here the land prices change from 88 TL to 469 TL/sq.m. and the density is 144-314 persons/ha. What is interesting here is that some of the low income groups pay more for a unit piece of land than what middle income people pay, while they benefit less from the city services.

15. The gross residential density is 272 persons/ha. The population of the subarea is 44,785 (according to the results of 1970 census) and its area is 170 ha.

16. The population of the subarea is 41,266 and its area is 950 ha (of which 300 ha is vacant). The density is 85 persons/ha.

INCOME GROUPS OF ANKARA

According to the results of the S.S. (1970) the low income group (a monthly income per household of 780-1300 TL.) constitutes 52 percent of the total population of the city. The middle income group (1450-2750 TL./household/month) constitutes 39 percent and the high income group (3000-5000 TL./household/month) 9 percent of the total population.

For a city like Ankara where there is a large difference between income groups living in separate parts of the city, an analysis of the city as a homogeneous unit is not possible. Therefore, two sub-areas containing different income groups are selected rather than taking an overall sample from the total population.

SUB-AREAS IN ANKARA

For planning purposes the city of Ankara has been divided by A.M.A.P.B. into 33 sub-areas which are assumed to be socially and economically homogenous within themselves. The population sizes of these sub-areas vary between 30-50,000. They are also considered as the smallest planning unit and the analysis of the existing situation is made on the basis of such subareas.

The first of the two sub-areas selected in this paper is subarea no.22 and it includes the districts of Kavaklidere and Küçükesat where a relatively high income group lives. The average annual income per household is 36,400 TL. The dwellings are mostly in the form of multi-storey flats.

The second sub-area(sub-area no.25) contains the districts of Dilmen and Öveçler. This is a low income area where people live in gecekondu's and have an average annual income of 14,000 TL per household. Although there are some dwellings which are not gecekondu's within this sub-area, they have not been included in our analysis.

The two selected sub-areas do not necessarily contain the highest and the lowest income groups. Our aim was to analyse the housing markets in a higher income area and a relatively lower income gecekondu area. The higher income group area is officially recognized and built more or less according to a preassigned layout, as opposed to the officially unrecognized lower income housing area.
THE USE VALUE OF HOUSES

In order to find empirical correspondence for the concept of the use value of dwellings we attempted to find the extent to which existing dwellings satisfied the demands of the users.

If the dwellings in the market were suitable to the demands of the people who used them, then the use value of these dwellings were high. Two hypotheses were stated which were assumed to reflect the use value of dwellings:

1. There is a close relationship between the number of rooms in the dwellings and the size of the families who use them.
2. Whether the people find the dwellings sufficient for their needs, determines the use value of their dwellings, e.g. the opinion of the people about the sufficiency of their dwellings for their needs is an indication of the use value of these dwellings.

THE RELATIONSHIP BETWEEN THE NUMBER OF ROOMS AND THE SIZE OF THE HOUSEHOLDS

Two questions were selected from the S.S. to find the relationship between the number of rooms and the size of the households:

a) How many rooms do you have excluding kitchen, bathroom, w.c. and the cellar?

b) How many persons are there in the household?

The coefficient of simple correlation between these two variables is only 0.23 for Kavaklıdere sub-area (no. 22). Thus there is a very weak correlation between the size of the dwelling and the family size. In other words, there are some small families living in large dwellings while many large families occupy small dwellings.

Fig. 1 Number of Rooms per Household in subarea no. 22.

\[ x = 3.27 \]
In order to compare the bivariate frequency distribution of rooms by dwelling and family sizes two histograms (Fig. 1 and 2) were drawn. These histograms indicate once again that the two distributions are in no way related. The modal value is 4 persons for family size and 3 for the number of rooms in sub-area no. 22.

In the Dikmen-Üvaçler sub-area (no. 25) the correlation coefficient between the family size and the number of rooms is even lower (r = 0.13). In gecekondu areas the dwellings show very little variance as far as the number of rooms is concerned. The majority of the dwellings have two rooms. But the family size varies enormously (Fig. 4). The modal value is 2 for the number of rooms while it is 4.5 persons for family size.
Fig. 4 Distribution of Household Size in Subarea no. 25.

For further comparison of the housing standards in the two sub-areas the following figures will be illuminating:

The number of persons per room is 1.17 in sub-area no. 22 and 2.99 in sub-area no. 25.

Types of dwellings people prefer

According to the results of the S.S., only 21 percent of the people in Kavaklidere found their dwellings not sufficient for their needs. People in this sub-area are generally satisfied with their dwellings. While the number of rooms per dwelling is 3.22, the number of rooms desired is 3.53.

On the other hand, the distribution of the number of rooms demanded gives a more interesting picture. When the histogram for the distribution of the number of rooms demanded is superimposed on the histogram of family size distribution, the close fit between the two becomes an indirect proof of the hypothesis that the number of rooms in dwellings is related to family size (Fig. 5). The modal value for family size is for the modal value for the number of rooms desired is also 4.
In sub-area no. 25, 43 percent of the people said that their dwellings were not sufficient for their needs. The percentage of people who are not satisfied with their dwellings is twice as much as in sub-area no. 22. While the average number of rooms per dwelling is 2.57, the number of rooms demanded is 3.32 (Fig. 6)

![Distribution of Number of Rooms and Household Size in Subarea no. 25.](image)

**THE FLEXIBILITY OF GECENKONDU'S IN MEETING USER DEMANDS**

Various assumptions have been made about gecekondu's. One of them is that they are flexible structures which can and do change according to the needs of the people who occupy them. If this assumption is correct then the size of the dwellings should reflect the size of families. The evidence, however, does not support this assumption. Can it be that the people living in these gecekondu's should not yet find time to enlarge their dwellings?

According to Öncel's study20, 80 percent of the people in Öveçler had settled here before 1964. During a period of sixteen years the dwellings have somehow not been able to adapt themselves so as to fit family sizes. Even if the assumption with regard to the flexible character of gecekondu's were correct, the adaptation would perhaps take place after a very long period of time. In the short run, new rooms added are usually rented to others in order to increase the family income while the shortage of space continues. In other words, the expansion of the gecekondu is a contribution to its exchange value in the short run. A contribution to its use value can only be realized after a large increase in family income.

**THE EXTENT TO WHICH DEMANDS REFLECT THE NEEDS**

While evaluating the housing demands of the higher income
An example in this connection is the existence of ineffectively used spaces in some of the dwellings. There usually exists a room which is reserved strictly for visitors and kept clean and closed at other times. According to the results of the S.S. in 18 percent of the dwellings in subarea no. 22 such a room exists. In subarea no. 25, however, only 8 percent of the dwellings have a room for welcoming visitors.

Inhabitants in Kavaklidere (subarea no. 22) one controversial point that neo-classical economics ignores should be kept in mind:

Demand does not necessarily reflect real needs. The suppliers of housing, being interested in exchange values, set the standards accordingly. People who in actual fact need small dwellings may wish to live in large dwellings offered in the market. In other words the suppliers tend to shape the demands of the people. Therefore the answers to the selected questions in the S.S. on housing demands are proxy indicators that must be considered with some reservation.

It may, on the other hand, be argued that people who demand unnecessarily large dwellings today are considering that their families will get bigger in the future. If this is so, then it is assumed that people expect to live in the same dwelling for a long period of time. In order to test the validity of this assumption the following question of the S.S. was selected:

"Have you ever moved during the period that you lived in Ankara? If you have, how many times?"

The answers indicate that 32 percent of the families in subarea no. 22 have moved 2 times, 19 percent 3 times, and 23 percent 4 times or more (Table 2). Only 22 percent have remained in the same dwelling during their total stay in Ankara. Therefore, it is either not true that families choose their dwelling with a consideration of the needs in the long run, or that even if they wish to do so they cannot live long in the same dwelling for one reason or another.

<table>
<thead>
<tr>
<th>No. of</th>
<th>Number of Homes Lived In</th>
</tr>
</thead>
<tbody>
<tr>
<td>Families</td>
<td>1</td>
</tr>
<tr>
<td>Subarea No. 25</td>
<td>(26)</td>
</tr>
<tr>
<td>Subarea No. 22</td>
<td>(23)</td>
</tr>
</tbody>
</table>

Table 2 Change of Residence in Ankara

For the gecekondu area (subarea no. 25) the spatial mobility within the sub-area or between other gecekondu areas is not any lesser. 33 percent of the families have moved 2 times, 19 percent 3 times, and 22 percent 4 times and more. 26 percent have not changed their dwellings at all.

Empirical findings with regard to the fit between demand and supply show that the dwellings supplied in the market do not correspond to people's needs.

It should be noted that all these evaluations are made on the assumption that every social group seeks dwellings within what it considers its own sub-area. We have seen that demand and supply do not have a close correspondence even within a specific sub-area containing a homogeneous income group. On the other hand, in a society where it is claimed that there is equal opportunity for every individual to select wherever he wishes to live, this condition is far from being fulfilled. Not only is there no possibility of selection among different sub-areas but there is also a very limited choice within separate sub-areas for given social groups.
22. Services at subarea level are:
   - Nursery schools, primary and secondary schools and lyceums.
   - Kindergartens, playgrounds, playfields, parks and sports areas at subarea level.
   - Cultural and recreational services such as cinemas, theatres and libraries which serve only a certain subarea.
   - Administrative services such as district post offices and police stations.
   - Health services such as small polyclinics, dispensaries and maternity clinics.
   - Religious services such as small district mosques.

Almost all of them are included among the responsibilities of public authorities. In subareas there are also commercial facilities, but these are to a large extent privately owned and operated.

ENVIRONMENTAL STANDARDS

In the previous section the use value has been studied for indoor standards of dwellings. However, the use value is also determined by the environmental standards.

In Turkey, where the rate of urbanization is very high—it is expected that 27 million more will be added to the existing 13 million urban people by 1995—the supply of necessary social and cultural services in residential areas is as important as the supply of housing per se. These services increase the use and exchange value of dwellings around them and they are set to be provided by public authorities.

What we call public services (or urban services) include all kinds of educational, cultural, social, recreational, administrative and health services in a city. These services can be at sub-area level, i.e., they serve the inhabitants of a sub-area, or at city level, i.e., they serve all the inhabitants of the urban area. For reasons which will be seen below we will have to mention briefly the city level services in Ankara.

<table>
<thead>
<tr>
<th>Services at subarea level</th>
<th>Existing Standard area sq.m/per.</th>
<th>Proposed Standard area sq.m/per.</th>
<th>Existing area (ha)</th>
<th>Necessary area (ha)</th>
<th>Existing area as the % of necessary area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nursery and Primary Sch.</td>
<td>0.66</td>
<td>3.20</td>
<td>80.52</td>
<td>387.52</td>
<td>221</td>
</tr>
<tr>
<td>Secondary School</td>
<td>0.32</td>
<td>1.80</td>
<td>38.39</td>
<td>217.98</td>
<td>18</td>
</tr>
<tr>
<td>Lyceum</td>
<td>0.18</td>
<td>2.00</td>
<td>21.80</td>
<td>242.20</td>
<td>9</td>
</tr>
<tr>
<td>Green areas</td>
<td>0.42</td>
<td>8.00</td>
<td>51.27</td>
<td>968.79</td>
<td>5</td>
</tr>
<tr>
<td>Cultural and recreational services</td>
<td>0.07</td>
<td>0.50</td>
<td>8.29</td>
<td>60.55</td>
<td>14</td>
</tr>
<tr>
<td>Administrative services</td>
<td>0.03</td>
<td>0.10</td>
<td>3.42</td>
<td>12.11</td>
<td>28</td>
</tr>
<tr>
<td>Health services</td>
<td>0.02</td>
<td>0.30</td>
<td>2.84</td>
<td>36.33</td>
<td>8</td>
</tr>
<tr>
<td>Religious and other social services</td>
<td>0.06</td>
<td>0.40</td>
<td>7.40</td>
<td>48.44</td>
<td>15</td>
</tr>
<tr>
<td>TOTAL</td>
<td>1.76</td>
<td>16.30</td>
<td>213.84</td>
<td>1973.92</td>
<td></td>
</tr>
</tbody>
</table>

Table 3 Ankara—Services at subarea level. (Note: Standards have been calculated on the basis of the results of 1970 census.)

Urban services in Ankara

As seen in Table 3 the amount of existing services is at a very inadequate level in Ankara. Especially there is a great scarcity of green areas. The existing standards of educational services are also very low. In schools, the quality of education is highly affected by the scarcity of space per student.

An area of about 2000 ha is required in Ankara in order to bring the total amount of services up to a desirable level for the existing population of 1.2 million. But a great part
of the areas required for public services are located at the periphery of the city; in sub-areas near the center there is not enough vacant land suitable for the services. Although some services that a sub-area need can be located in the neighboring areas, some services such as nursery and primary schools and playgrounds should necessarily be located within the sub-area concerned, since they have to be within walking distance from the dwellings. Of the total 33 sub-areas only 16 have adequate amount of vacant land required for the services, but the distribution of this land within the sub-area does not always conform to the requirements of proper physical planning. Furthermore, the land is generally privately owned and therefore its public acquisition and transfer to public use is costly and full of legal complications.

26. Today the open areas per person is 8.27 sq.m. (at sub-area level and at the city level together) in Ankara. It is proposed to be 28 sq.m. in England it is accepted as 34 sq.m. as a planning goal. The nursery and primary education area per person is 0.66 sq.m. in Ankara. It is 5.20 sq. m. in planned English towns. For Ankara it is proposed to be 3.20 sq.m. per person.

In Table 4 there is a comparison of the existing and proposed service standards for Ankara, with some other Turkish cities and some foreign standards. In comparison to the selected foreign standards, Ankara has a very low level of services. There is a great difference between the existing standards and the proposed standards for the city, although the proposed standards of the A.M.A.P.B. are considerably lower than the foreign standards.

SERVICES IN THE TWO SELECTED SUB-AREAS

As seen in Table 5, in both sub-areas the existing service standards are not only lower than what is proposed for Ankara as a whole but even lower than the existing city average. In contrast to the usual assumptions in regard to gecekondu areas the area covered by primary education facilities per inhabitant in sub-area no.25 is larger than that in sub-area no.22. This surprising result cannot be explained by the simple fact that the percentage of children at primary school is greater in sub-area no.25. The number of teachers per student and the area per student are also higher in sub-area no.25. There are two reasons for this:

1. In sub-area no. 25 there is more vacant land and the land-prices are lower. Therefore it is easier for the public authorities to acquire larger areas for the required services.
2. In sub-area no. 25 the density is low therefore it becomes necessary to build more schools in order to avoid increased walking distances.
This difference between the two sub-areas also exist in secondary school standards.

It should be noted however that in sub-area no. 25, although the educational area standards are relatively higher, the physical conditions of school buildings are not always favorable. Furthermore, most higher income families in sub-area no. 22 have the privilege of sending their children to private or public schools outside their own sub-area, although this does not totally solve the problem of over-concentration in the local schools.

Both the sub-areas are rather poor with regard to the possession of green areas. The gecekondu area has no green area at all, while sub-area no. 22 has one small single park. The same applies to health services.

### Table 5 Service Standards in Subareas no. 22 and 25.

<table>
<thead>
<tr>
<th>Service</th>
<th>Subarea No. 22</th>
<th>Subarea No. 25</th>
<th>Gecekondu</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary School</td>
<td>1.9</td>
<td>2.0</td>
<td>3.0</td>
</tr>
<tr>
<td>Secondary School</td>
<td>1.5</td>
<td>2.0</td>
<td>3.0</td>
</tr>
<tr>
<td>High School</td>
<td>1.5</td>
<td>2.0</td>
<td>3.0</td>
</tr>
<tr>
<td>Green Area</td>
<td>0.5</td>
<td>0.5</td>
<td>1.0</td>
</tr>
<tr>
<td>Health Services</td>
<td>1.5</td>
<td>2.0</td>
<td>3.0</td>
</tr>
<tr>
<td>Administrative</td>
<td>0.5</td>
<td>0.5</td>
<td>1.0</td>
</tr>
<tr>
<td>Cultural and Social Services</td>
<td>0.5</td>
<td>0.5</td>
<td>1.0</td>
</tr>
<tr>
<td>Social and Religious Services</td>
<td>0.5</td>
<td>0.5</td>
<td>1.0</td>
</tr>
</tbody>
</table>

### WHAT DO PEOPLE THINK ABOUT THEIR ENVIRONMENT?

Low environmental standards were assumed to have a negative effect on the value of dwellings. It was also stated that the use value was determined by the people who occupy the dwellings. Therefore it was important to learn what people themselves thought about the quality of life in their own environment and to what extent they were sensitive to the level of the services.

Two questions asked in the S.S. have aided us on this subject:
1. In your opinion what are the inadequacies of your locality,
2. How would you classify the quality of services in your district? "Good", "medium" or "bad"?

90 percent of the inhabitants answering these questions in the gecekondu area(sub-area no. 25) complained about the lack of playgrounds and open spaces. Usually it is thought that in gecekondu areas people do not need common open spaces since the density is low and most of the houses have their own gardens. This assumption has proved not to be true. It is interesting to see that the gecekondu inhabitants are very much aware of the scarcity of organized open areas. Being relatively newcomers from rural areas, they may feel the lack of open spaces more strongly and having been introduced to urban life they require such spaces to be organized. In Kavaklidere, on the other hand, only 36.6 percent of the
inhabitants complained about the unavailability of green areas.

The second largest complaint (83.3 percent) of the people in sub-area no. 25 was the lack of recreational facilities within their district. In fact there were three open-air cinemas in Dikmen-Öveçler but no recreational facilities for winter. In Kavaklıdere only 24.7 percent of the inhabitants had complaints with regard to the lack of recreation facilities.

The inhabitants (80 percent) of Dikmen-Öveçler were also sensitive to the "bad smell" in the district. This smell is due to uncollected waste and the absence of a sewage system. Furthermore, 50 percent of the people interviewed had complaints about "dust and dirt", 28 percent about the "inadequacy of roads" and the "lack of shopping facilities", 22 percent about the "lack of sports areas" and 11 percent about the "lack of water and sewage systems".

It is quite interesting that the people who complained about air pollution constituted only a small percentage (4 percent) in Dikmen-Öveçler while Ankara itself suffers enormously from pollution. In Kavaklıdere, for example, pollution is the main
complaint (69.2 percent). The second cause for complaint in sub-area no. 22 is "too much noise" (46 percent).

The result of the S.S. lead us to the opinion that the inhabitants of the two sub-areas are sensitive to standards in their environment. There is in fact a close correlation between subjective and objective evaluation of the environment. In Kavaklıdere, although the public services are inadequate the relative lack of such services is less important for people than in Dikmen-Öveçler. The people living in Kavaklıdere are far more mobile and they can satisfy their needs outside of their sub-area. For the less mobile people in Dikmen-Öveçler, however, the immediate environment is much more important.

THE REASONS FOR THE DECLINE IN ENVIRONMENTAL STANDARDS

In Turkish cities the local government does not own enough land that can be allocated to public services. Even if the local government has a small amount of land it may be sold whenever there is a financial shortage. The municipalities are in serious financial difficulties. It is impossible for them to pay market prices and acquire all of the land indicated by the master plan as the necessary areas for public use. Most often the service areas proposed in the master plan of the city are allocated to other uses, either because of the scarcity of financial funds or due to the political pressures.

Frequent amendments to master plans or an even larger number of specially issued permits increase densities well above the originally designed levels in neighbourhoods. Since no extra service areas are reserved and allocated for this increased population the services become more and more inadequate and the environmental standards decline.

Ankara is a good case for illustration. The decisions concerning building heights and densities were given without any consideration of the available technical infrastructure and public services, thus leading to the decline of environmental standards. Our sample sub-area (Kavaklıdere), for example, was originally developed according to the plan of 1957. Most of the services proposed by this plan were fulfilled. However, the plan of 1957 did not provide sufficient services even for the then existing population. Consequently they were also not adequate for the population foreseen by the plan, let alone for the present much higher densities.

A ROUGH ESTIMATE OF THE COST OF SUPPLYING URBAN SERVICES

The public investments made in infrastructure and in urban services contribute to the use value of the residential environment and hence to the exchange value of the dwellings in the market. However, these investments put a burden on the public budget and their distribution among different communities often involves a political choice with regard to the distribution of income among different social groups. We found it useful to include in our analysis an estimate of the cost of supplying the required services in order to develop some idea on the future of the sub-areas we analysed. There may be many factors affecting the cost of urban services like land use, form, density, size of urban developments, distances between urban concentrations, the ability and capacity of existing urban areas to absorb new developments and staging of
the development. However it requires a comprehensive study to find out how and to what extent these factors effect the urban costs. There is no such study made in Turkey.

According to a study made by A.M.A.P.B. in 33 subareas of the city the cost of public acquisition of land for the necessary services is about 14.8 billion Turkish Liras. The cost of construction of facilities is 2.0 billion and the total cost for the city is 16.8 billion TL. It is interesting to note that the cost of land constitutes 87.7 percent of this total.

The cost of supplying the necessary services in Dikmen-Öveçler and Kavaklıdere is given in Table 6 below.

<table>
<thead>
<tr>
<th>Subarea no. 22 (Kavaklıdere)</th>
<th>Subarea no. 25 (Dikmen-Öveçler)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>Population</td>
</tr>
<tr>
<td>44,265</td>
<td>41,266</td>
</tr>
<tr>
<td>Total area of existing services</td>
<td>Total area of existing services</td>
</tr>
<tr>
<td>1.8 ha</td>
<td>5.4 ha</td>
</tr>
<tr>
<td>Cost of public acquisition of land</td>
<td>Cost of public acquisition of land</td>
</tr>
<tr>
<td>1,209.8 m.TL</td>
<td>364.6 m.TL</td>
</tr>
<tr>
<td>Cost of construction of facilities</td>
<td>Cost of construction of facilities</td>
</tr>
<tr>
<td>56.3 m.TL</td>
<td>79.9 m.TL</td>
</tr>
<tr>
<td>Total cost</td>
<td>Total cost</td>
</tr>
<tr>
<td>1,266.1 m.TL</td>
<td>444.5 m.TL</td>
</tr>
</tbody>
</table>

Table 6 shows that the cost of land constitutes 95 percent and 82 percent of the total cost in Kavaklıdere and in Dikmen-Öveçler respectively. (Here the price of land is the present market price).

THE EXCHANGE VALUE OF DWELLINGS

The previous sections of this paper argued that in the urban housing market the exchange value is regarded by certain interest groups as more important than the use value. In this section we will try to see to what extent this argument holds true for Ankara with the help of the empirical evidence obtained from the two sub-areas.

We have shown above that the dwellings produced do not necessarily satisfy the needs of the people who occupy them. On the other hand for those interest groups which regard housing as an asset, the continuous increases in values of land and dwellings provide a certain degree of security. In fact the S.S. shows that in Kavaklıdere, 183 families out of 426 (43.5 percent) are owners of the dwellings they occupy. But 48.6 percent of these owners (89 families) have still not paid their debts in full. It is obvious that the people who do not have enough money to buy a dwelling prefer to purchase it on credit instead of renting a flat. Although the rent could be considered as the exchange value divided into regular payments, it seems that people find it more advantageous to become owners even if through payment of high installments within a shorter period of time, rather than remain as tenants. In Kavaklıdere 33 percent of the families who are owner-occupiers have a second property which is rented out. This is not a low percentage.

In Dikmen-Öveçler the same security consideration holds true. In this district a larger number of families (90 families out of
26. 35 percent of the families who occupy two-room dwellings pay a rent between 576 TL and 1200 TL, and 65 percent pay 225-575 TL. 39 percent of the families who live in dwellings with four rooms pay rents of 225-575 TL.

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THE RELATION BETWEEN THE RENT AND THE NUMBER OF ROOMS

To what extent then is the rent related to the qualities of a dwelling? Can size be a proxy indicator of quality? Does the assumption that high rents are paid for larger dwellings and low rents are paid for smaller dwellings always hold true? If so, then exchange values are closely related to the qualities of a dwelling.

The S.S. shows that the rents in Kavaklıdere district vary between 275 TL and 1125 TL. The correlation coefficient between the rent paid and the number of rooms occupied is 0.26. This correlation is not significant for the given sample size. The result is due to the fact that there is little variance in the size of the dwellings offered while the rents have considerable variance. What is more interesting is that there are quite a few families who pay high rates for small dwellings and others who pay small rates for large dwellings.

It seems that the size of dwellings is not the only factor that determines rent. There are other factors, such as distance from a main road, interior decoration, etc. which effect the rates i.e. the exchange value.

For Dikmen-Öveçler the relation between the rent and the size of dwellings could not be determined since the sample size of tenants is very small.

THE RELATION BETWEEN RENTS AND INCOMES

In sub-area no. 22 (Kavaklıdere) both the rents and the occupier's incomes have a large variance. The incomes vary from 800 TL to 3200 TL. (Figure 7). Since there are a variety of dwellings offered it can be assumed that the level of rent is closely related to the occupier's incomes. However, the coefficient of simple correlation between the two variables (rent and income) is 0.49. This correlation is not significant for the given sample size.

The percentage of income spent on rent is also important in determining differential rents. In Kavaklıdere the families
having an income between 400 and 2800 TL. pay, on the average, 31 percent of their income for the rent while families with incomes more than 2800 TL. pay only 18 percent of it for the rent.

In the gecekondu area most of the families have an income between 400 and 1000 TL. (Figure 8). The rents, on the other hand, vary at most between 100 and 200 TL. The correlation coefficient between rents paid and incomes is 0.58. This correlation is not significant for the given sample size, either.

**WHAT DETERMINES THE "EXCHANGE VALUE"**

One conclusion that can be derived from the analysis above is that the rents (i.e., the exchange values) are determined neither by the number of rooms (which may reflect the use value of the dwelling), nor by the demands of the people who occupy these dwellings. In other words, empirical evidence indicates that the assumptions of neo-classical economies may run into serious difficulties in urban analysis:

1. Exchange value is not always identical to use value.
2. Land use patterns are not always determined by the supply and demand for housing.

If the exchange values of dwellings are determined by factors other than the use value of dwellings, what are these factors? One factor which is very effective in the determination of exchange value is the aim of housing suppliers, which is to maximize the exchange value. For the suppliers of housing, profit maximization may be defined as maximizing the difference between the cost of construction and the cost of selling the building in the market. Today, in Ankara the cost of land constitutes 8-33 percent of the net cost of a building. The cost of construction is determined by the number of storeys and the type and quality of construction. The cost per square meter is:

- 900-950 TL. in high quality buildings
- 800-850 TL. in 4-5 storey reinforced concrete blocks
- 750-775 TL in 3-4 storey brick buildings

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Fig. 8 Distribution of monthly income per household in subarea no. 25.
For the builder there is a reciprocal trade-off available between the price of land and the cost of construction. However, in Turkish cities the cost of construction is not necessarily minimized by the builder of housing blocks. Often unnecessarily high and costly concrete blocks are said to be built. The contractor’s aim is not to provide sufficient number of dwellings to satisfy the total housing demand but to supply a very small portion of the market and still gain substantial profits. Those who are ready to pay high exchange values for housing find no other alternative while those excluded from this small market are forced to find housing in another market, i.e., the gecekondu housing market.

In this paper we have studied the environmental standards in a relatively high income residential area of Ankara. Even there is more likely that in the coming years the environmental standards will continue to decline. In other words, under present conditions no drastic improvements are seen possible in the near future. Therefore this area will apparently remain a "high class" district only for a short time. The dwellings will very likely lose their use value for the high income groups, not only due to the rapid decline in the environmental standards and public services but also due to bad maintenance of the buildings themselves.

CONCLUSION

A study of the Ankara housing market reveals that the neo-classical assumption with regard to the identity of use value and exchange value of dwellings is sometimes insufficient as an analytical tool. Instead, the analysis of where the difference between use and exchange values lies reveals much more interesting and operational aspects of the problem. The interest groups (such as realtors and contractors) active in the housing market are primarily interested in creating high exchange values while their interest in use values is only indirect.

Under such circumstances not only is there a continuous shortage of housing but the dwellings do not satisfy the needs of the people who occupy them. Although in this paper we have accepted the existence of separate housing markets for separate groups the inequality between supply and demand is also valid when it is assumed that the two social groups seek housing within their own social area. For example, in a high income residential area in Ankara it is seen that the distribution of dwelling sizes does not fit the distribution of family sizes. Some families live in dwellings which are larger than what they need—while some others have to live in small dwellings which do not satisfy their needs. Those living in large dwellings have been subject to the pressure of artificial norms set by the suppliers. In gecekondu area the problem is more acute. When the distribution of family sizes and the distribution of dwelling sizes are studied together, it becomes apparent that the families in this district do not live in dwellings large enough for their needs.

The results of the S.S. reveals that in a housing market where the exchange value is regarded as more important than the use value some social groups inevitably suffer. A sufficient amount of use value cannot be obtained although a large amount of exchange value is created. This is
symptomatic of the distortion in the allocation of resources in housing. "The maximization of exchange values by diverse actors produces disproportionate benefits to some groups and diminishes the opportunities for others."

The Ankara examples present unbelievably low environmental standards. It is surprising that such standards may even be lower in the so called luxury(!) areas. The low environmental standards are the indications of the indifferent attitude towards human life in a market where the basic concern is the exchange value.

What is interesting here is that the occupiers (both the tenants and the owner occupiers) of these high income dwellings do not yet fully suffer from the lack of urban services in their environment. Perhaps it is more correct to say that they are not yet fully aware of alternative conditions of living. However, it can be assumed that in coming years, with increasing car ownership, these occupiers will prefer to move out to suburban settlements where they can obtain better services.

Under the light of our empirical findings what is expected to happen in large Turkish cities can be summarized as follows:

The dwellings will continuously lose their use value for the higher income groups, since no attention is paid either to physical maintenance of buildings or to the environmental standards. However this will not reduce the exchange value of dwellings for there will always be some lower income social group ready to accept the conditions no matter how undesirable they may be. It is almost impossible for
public authorities to supply the necessary urban services to such areas since the land and building prices are extremely high within the city. The authorities can more easily supply services in the areas out of the city where the land prices are relatively lower. Therefore, it is natural that the high income groups will prefer to move to areas where the environmental standards are higher. The public investments in such areas will create high exchange values. Unless this increase in values returns back to the public, this will mean a transfer of benefits to high income groups. After absorbing whatever benefits they could obtain within the city, the high income groups will now start to look for new areas where they can obtain new advantages, from public subsidy. The high income group can be viewed as a noble herd devouring its grazing grounds and moving on to new grounds leaving its place to lower species. It is not a wild guess to see the future of sub-area like Kavaklıdere, for example, as a slum with owners living outside in the prosperous suburbs of Ankara.

ÖZET


Yazının üçüncü bölümünde Ankara kenti ve onun alt bölgeciklerinde ortaya çıkan ampirik bulgularla daha önce geliştirilen kıyaslal çevre tutarlığı ve sektörleri analiz edilmekte ve daha sonra Ankara kentsel servislerinin diğer Türk şehirleri ve yabancı ülkelerdeki çevre standardları ile karşılaştırılması yapılmaktadır. Bu bölümde hane halkın kendi çevresini hakkında sorulan sorulara verdikleri yanıtlar ve bu değerlerin egemen olduğu konut piyasasında kaynak dağılımının dengesizliği üzerinde durılmaktadır.
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