Chapter 4

The Housing Allocation Process and Urban Housing Markets

Whatever its ideology or form of government, each society must have some mechanism for allocating investment to housing and then for allocating housing to its population.[1] The former allocation is primarily a question of the division of national income among sectors of the economy, while the latter is primarily a question of the distribution of housing among social groups and households at given locations. This chapter focuses on the latter distributional issue generally, and specifically on the operation of allocation mechanisms for housing with urban areas.

Types of Housing Allocation

There are two principal mechanisms for allocating housing. One is the traditional private "market" which allocates households to housing on a competitive basis in terms of the values people attach to housing and their ability to pay. A second is that of public sector allocation in which governments, housing officials or some other community group, distribute housing according to individual and collective needs and the objectives of the agency involved.

Most countries obviously have some mixture of both forms of housing allocation. The emphasis varies from largely public sector allocation in societies which are centrally-planned to an almost exclusive reliance on the private market mechanism in "laissez-faire" societies. In between are a range of combinations of *quasi-market* or *quasi-public* systems—including those in countries in which a large public housing sector operates within a larger market system and those in which a small market sector operates within what is essentially a state-controlled housing

system. These distinctions are seldom very clear, however, and, as shown later, they are becoming increasingly less clear.

The actual system of allocating housing differs widely even within the same country. This diversity arises not simply because these are so many different systems, but because of differences in the size, heterogeneity, and fluidity of the housing stock, and in the variable demands which people place on that stock. Not surprisingly, the same system will not produce identical results in all areas.

Objectives and Criteria in Housing Allocation

At the outset, we might assume that the private market and the public sector have contrasting objectives and differing criteria for evaluation of the allocation process. The private market for housing is based on the financial resources of firms and their willingness to produce housing for profit, as well as on the income of households and their willingness to pay for housing services through purchase or rental. In contrast, the public sector operates on the basis of housing needs, as defined by individual households or by society collectively. In both instances, however, the objective of matching housing supply and demand, i.e., the allocation process, is roughly the same.

Although both sectors do share some objectives, each employs somewhat different criteria to evaluate those objectives. Table 4.1 provides examples of what those objectives and criteria might be. In theory, the private market emphasizes efficiency, generally in terms of maximizing output while at the same time minimizing overall levels of excess prices and rents. For the public sector, the paramount objective is greater equity or social welfare, in terms of assuring adequate housing for all according to their needs. Nevertheless, when viewed in aggregate, all public agencies must also have efficiency as one of their objectives—in terms of how they distribute units to households—if they are to achieve maximum use of their resources in meeting social needs. Similarly, the private market must have an element of equity in its operation in that price increases force households to regulate how much housing they consume.

A similar duality emerges when one examines the process of allocation. The overwhelming mechanism in the private housing market, among both producers and consumers of housing is competition. Yet competition also appears in the public sector, in terms of defining who is to get housing of what type and where, and among the various agencies involved in housing allocation. Wherever there is competition there is also a countervailing force, which we call simply cooperation. This factor is evident in housing allocation not only in such obvious and positive examples as that of housing associations and nonprofit and self-help groups, but in terms of collusion. In the private market, the latter might involve individuals and groups acting together to exclude others from living in their neighborhoods, or to set prices or rents, or to restrict mortgages in certain areas of a city. Similar, although perhaps less obvious, collusion occurs within the public sector in attempts to alter the location of public housing or the waiting lists of people trying to secure access to that housing (see Chapter 10). Note also that the two types of allocation operate at quite different scales. In

Table 4.1. Similarities and Contrasts in Private and Public Housing Allocation

Index	Private market allocation	Public sector allocation
Principal objective	Efficiency	Equity
Criteria of efficiency	Minimizing aggregate housing prices and rents	Maximizing use of existing stock
	Maximizing output and profits,	Minimizing administrative costs
	Maintaining rates of return	Maintaining adequate stock
Criteria of equity	No one can move without making others worse off,	Assuring adequate housing for all
	Price restricts over-consumption	Treating all equally according to their needs
Process of allocation	Competition (ability to pay)	Needs and social priorities
Countervailing process	Collusion, Cooperation	Competition (among agencies and tenants)

the private market, it is usually the individual (household) who is bidding for housing, yet the process does not assign a specific individual (John Doe) to a specific housing unit. Instead, it assigns classes of similar households to a limited range of housing types and locations. In contrast, the public allocation process is in theory a community-based allocation yet it actually involves assigning a specific John Doe to a given housing unit in a unique location. This means that both processes contain the seeds of their own contradiction in that it is seldom the case that individual and community welfare coincide.

Additional Questions

Regardless of the type of allocation system used, however, a number of similar questions can be asked of each. First, how does the allocation mechanism for housing actually function? How are the criteria of allocation—whether they be ability to pay or the identification of need—established? To what extent are the criteria explicit, such as in housing prices, and to what extent are they implicit, as in the case of discrimination?

Second, what mechanisms are used to monitor changes in housing preferences, needs, and supply to ensure that there is a reasonable match between households and the housing stock? What information is needed? How is this information to be collected and distributed, and by whom? The private housing market in theory takes in this information as a matter of course, digests it, and then puts it out in the form of "signals," such as changes in vacancy rates and prices or housing deterioration

and household relocations. Many of the same signals come to the public agencies involved in housing allocation. More frequently, however, the public sector must rely on other measures: the length and composition of its waiting list, and complaints submitted from existing tenants (sometimes in the form of graffiti).

A third question relates to the implementation of changes indicated by the information received. In a market system people presumably respond directly to economic "cues." If they don't, they find themselves with less housing or pay more for the same housing. In any publicly-controlled system, some combination of the carrot (such as subsidies) and the stick (persuasion or higher rents) may be employed. The nature of the response in the housing system is critical in understanding the spatial outcomes which we document in the following chapter.

THE NATURE OF URBAN HOUSING MARKETS

The market for housing, like that for most other goods and services in our society, is primarily an economic market set within a given political framework. It may be defined as a set of institutions and procedures for bringing together housing supply and demand—buyers and sellers, renters and landlords, builders and consumers—for purposes of exchanging resources. In this example, the resources are housing services. In economic theory, the role of the market is to allocate scarce resources in an efficient manner so as to maximize output, or social well-being, while minimizing costs. The mechanism of allocation, as defined above, is price.

Unlike most other markets, however, the urban housing market deals as much with the exchange of rights to property as it does with a consumption good such as housing. Property is not usually consumed as we consume toothpaste, for example. It cannot, in most instances, by physically moved (excluding mobile homes). Moreover, the use of urban property is often severely restricted (e.g., through zoning and neighboring uses) and even these rights can be withdrawn by public fiat (compulsory purchase or expropriation). It is also true that unlike conventional markets, such as the Sunday morning food market, there is no marketplace, at least no single geographic marketplace, for housing. Instead, buyers move to the goods rather than the reverse.

Types of Housing Markets

The initial distinction which must be made in defining housing markets is one of *scale*. Generally, two distinct scales are recognized: (1) the macroscale, which is concerned with the housing sector of the national economy and the interaction of supply and demand at an aggregate (usually national) level; and (2) the microscale, which focuses on the behavior of individual producers and consumers at a more local level.

At the macro-level, research interest tends to focus on aggregate levels of production and consumption of housing, but with little or no regard for the composition

of the stock and its distribution among households and places. The housing market is essentially defined by the relationship between the rate of investment in housing supply and aggregate expenditures by households. As such, housing competes with other sectors (both durable and nondurable goods) in the national market for scarce income and productive resources. Although beyond the scope of this book in any detail, the student of housing must begin with the macro-level housing market since it is primarily at this level that the parameters (or limits) are established for local housing transactions.

At the local or micro-level, we are in fact studying how these national aggregates are reflected in the housing markets of individual regions or urban areas. More specifically, we are concerned with the spatial expression of the matching of supply and demand—i.e., how the housing allocation process actually works on the ground. How is housing produced and exchanged? How are prices and rents determined and how do they vary among types of housing at particular locations? What is the role played by local institutions and governments?

In addition to scale, housing markets can be defined on numerous other criteria. Among these criteria are the location of control (privately or publicly-owned), or more broadly tenure type (rental, owner-occupied, cooperative), age of housing and position in the market (new and resale), and price of quality (derelict units or stately mansions). In almost all cases, however, any disaggregation below the national level (a sectoral definition) or below the scale of an entire urban region (a spatial definition) implies the existence of "sub-markets" for housing. This question is taken up in the last section of this chapter.

Spatial Delimitation

The spatial definition of a housing market then obviously depends on the kind of market one has in mind. At the local level, however, perhaps the only distinguishing feature of a housing market is that it is a limited spatial entity. Even so, defining that entity is by no means straightforward. Generally, an urban housing market may be defined as a contiguous geographic area, more or less clearly bounded, within which it is possible for a household to trade or substitute one dwelling unit for another without also altering its place of work or its pattern of social contacts. In other words, people can change residence without necessarily changing jobs or friends (and vice versa). Identifying the appropriate study area thus depends primarily on determining the spatial extent of substitution in housing. In practice, however, given the difficulties of measuring substitution, we tend to define local housing markets in parallel with local labor markets, where the latter are centered on a major employment concentration, usually the central business district.

It will be immediately evident that neither of these definitions produces discrete spatial boundaries. Instead, given the increasing number of potential work locations, the extensive distances over which commuting to work is possible in the modern metropolis, and the fact that few urban areas are totally isolated geographically, the tendency is for one local housing market to merge into the next. In addition, the increase in second homes, and in the purchase of homes in the

rural countryside in anticipation of retirement, has vastly extended the spatial extent of most local housing markets. In the face of this complexity, researchers have tended to fall back on the use of local municipal boundaries, or those of census metropolitan areas, in defining the spatial area of a local housing market. This restriction, however, often leads to serious distortions in the research results reported.

Finally, the spatial delimitation of urban housing markets also varies depending on where one is within the housing allocation process. It is likely, for example, that large builders and developers would view New York and Philadelphia as being in the same housing (supply) market, between which they might easily consider reallocating resources. On the other hand, it is unlikely that the typical consumer would regard the substitution of dwelling units in the two cities as feasible or desirable. More emphatically, the single-parent, with five young children, living on welfare in a high-rise block on the lower east side of Manhattan, would have a very different view of the urban housing market and its geographic extent than would, for example, the young upwardly-mobile executive working for an multi-national corporation. In sum, while we may, in subsequent pages, rely primarily on one method of defining urban housing market areas, we should recognize that this is but one of many possible images.

Components of a Housing Market

Figure 4.1 provides an outline of the components in a typical housing market. The two major components are the housing stock and the inventory of households in a given market area. Recall from Chapter 2 that we are in fact discussing the flow of housing services from the stock and the housing status attained by particular households. The linking mechanism is the market *transaction*—the exchange process—which brings together units from the stock and certain households. Completion of this transaction process in turn produces a set of outcomes, such as changes in the level and locational pattern of vacancies, prices, investment and overcrowding, as well as in occupancy and neighborhood turnover.

The essential ingredient in the market is change; it is clearly a dynamic process. Both the housing stock and the inventory of households change *internally*, such as through the aging process, as well as through *externally-induced* changes. The determinants of external change primarily alter the rate of new housing construction and the size, demographic structure, and income of the population which give rise to the demand for housing. But all of these components—and this is the essence of the market concept—are interrelated. Increases in household income, for instance, will not only raise the demand for housing, it will alter the nature of that demand. It will also attract more in-migrants into that housing market area, it will also stimulate new housing construction and encourage people and institutions to invest in improvements in the existing stock. This, then, in total is what we term the *housing system*.
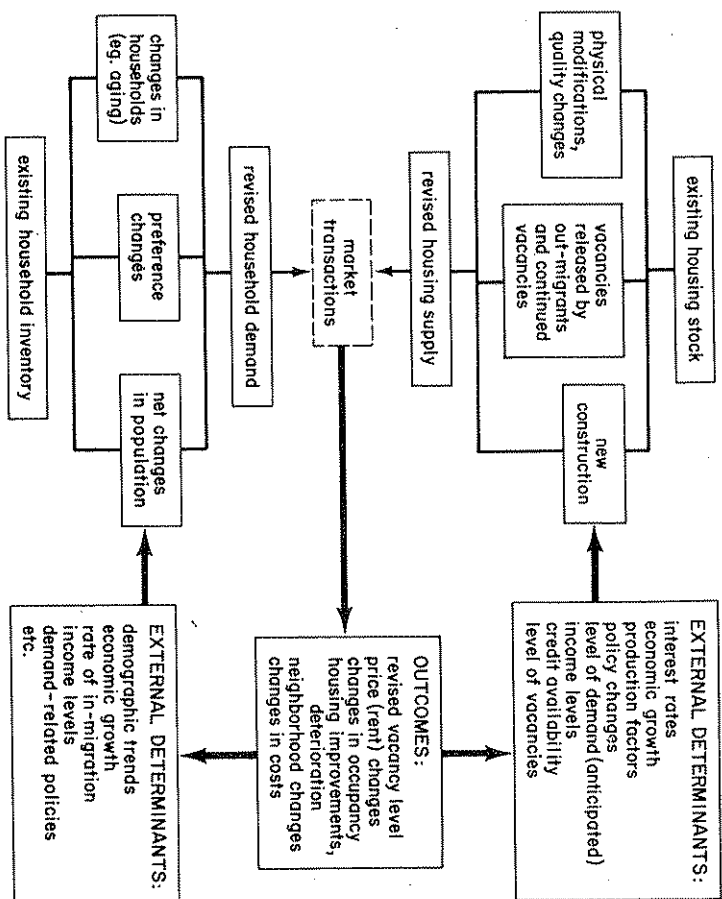
Figure 4.1 components:

existing housing stock → physical modifications, quality changes / vacancies released by out-migrants and continued vacancies / new construction → revised housing supply → market transactions ← revised household demand ← existing household inventory → changes in households (eg: aging) / preference changes / net changes in population

EXTERNAL DETERMINANTS:
interest rates
economic growth
production factors
policy changes
level of demand (anticipated)
income levels
credit availability
level of vacancies

OUTCOMES:
revised vacancy level
price (rent) changes
changes in occupancy
housing improvements, deterioration
neighborhood changes
changes in costs

EXTERNAL DETERMINANTS:
demographic trends
economic growth
rate of in-migration
income levels
demand-related policies
etc.

Fig. 4.1. The components of an urban housing market.

Even with an agreement on definitions, there is an immense diversity of interpretations of how the housing market actually works. Some researchers conceptualize the market as a perfectly competitive economic market in which households have uniform tastes and complete information, and in which the supply of housing is relatively fixed. Some see the market primarily in terms of the institutions and decision-makers involved, while others see it as a process of social conflict and a continuing element in the class struggle in contemporary capitalist society. Still others look to the normative question of how the market should work rather than how it does work. The views are as different as the definitions of housing itself, summarized in Chapter 2.

HOW THE MARKET WORKS

Here an attempt is made to integrate elements from several of these approaches into a broader framework. We begin, however, with the concept of a competitive market drawn from micro-economics since the housing market is, at least in basic outline, an economic transaction process and because this is the best-developed

part of the literature. The concept is then extended to include the behavior of individual actors and institutions operating within and outside the market, and then to encompass the social structure which influences who in fact has *access* to the market and at what cost.

Micro-economic View: The Market Clearing Solution

The most precise interpretations of how the housing market works derive primarily from the micro-economics literature. One such concept views the matching of households and housing units as essentially an "assignment" problem. It begins, as in Figure 4.2, with a supply matrix of housing units classified by attributes of the dwelling, neighborhood and location, and a demand matrix of households classified by their attributes, preferences, and constraints (e.g., income, mobility, etc.). For simplicity, income is usually taken as an overall index of demand and purchasing power, while dwelling price is taken as an index of the type of housing supply available.

In theory, the economic market allocates housing units to households on the strict basis of the prices of those units and the amounts households are willing to pay for housing. The former are represented in a set of *asking prices* and the latter in a matrix of *bid prices* from households. The allocation proceeds so as to achieve a *market clearing solution*, i.e., one in which all units are allocated and all households are accommodated, in the most efficient way. Efficiency in this case is defined as that allocation which minimizes over (or under) consumption of housing and in which total rents paid (and prices) are at a minimum.[2] Again, in theory, all households are assigned to the housing they prefer and can pay for, after all other households with similar preferences and higher bid prices have been allocated. The assignment is also optimal if, as defined above, no household could be made better off with a different assignment without making other households worse off.

This formulation is not dynamic, however, in the sense that it does not allow for change. Nor does it allow for a diversity of behavior among households or for a persistent disequilibrium in the market, e.g., when supply and demand do not match. Nevertheless, it does identify very simply the basic economic components in the process of market allocation. To embellish the concept, we must initially add concepts relating to the behavior of both the consumers and producers of housing.

Households must initially choose between some quantities of housing (q) and all other goods. (z) among which in combination they are equally satisfied and therefore indifferent. These combinations, when ordered systematically, as represented by the curve I′ in Figure 4.3, define the household's *indifference curve*. Their combined expenditures on housing and other goods are in turn subject to an overall budget or income constraint, represented by the budget line BB′. Although the household could choose any one of many possible combinations, such as q_1 units of housing and z_1 units of other goods, the optimal allocation of their resources is at the point T where the budget line BB′ is tangential to the indifference curve. At that point, the household would consume q_2 and z_2 units of housing and other goods, respectively.
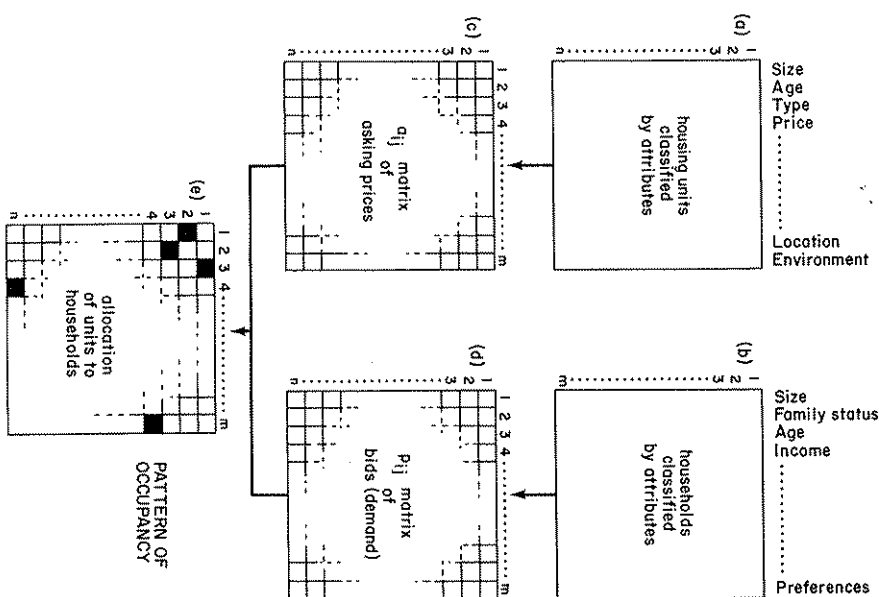

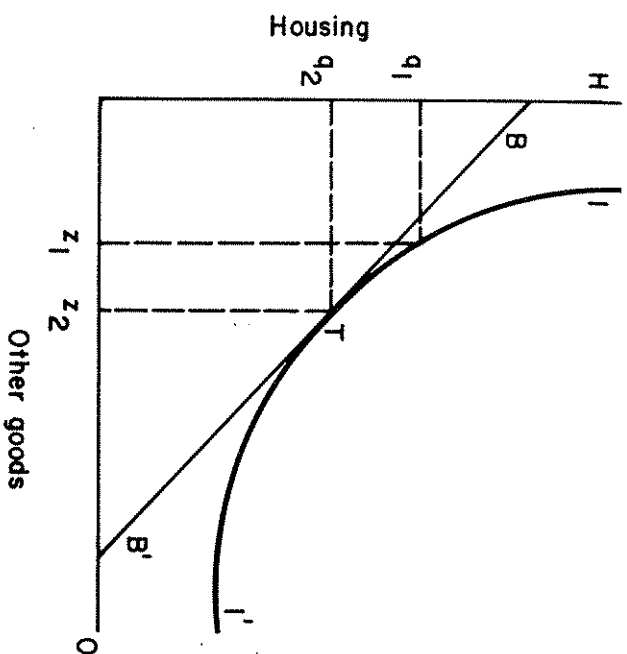

Fig. 4.2. A market clearing model of housing allocation.

In choosing a particular quantity of housing (services), most households must also choose between a given quantity of housing and a location. The latter, conventionally, is expressed in terms of a *trade-off* between housing costs and accessibility (or commuting costs) to some central workplace (the CBD). In Figure 4.4, we assume two households with roughly similar incomes but dissimilar indifference curves, I_1 and I_2, respectively, regarding desired combinations of housing and accessibility. Their respective income constraints, B_1B_1 and B_2B_2, are tangential to their indifference curves at points T_1 and T_2, respectively. The first household would, therefore, choose a_1 units of accessibility and q_1 units of housing and thus live closer to the city center, while the second household would accept fewer (a_2) units of accessibility to obtain more (q_2) units of housing and thus would locate further from the center.

Furthermore, each household will have a somewhat different preference for each type of housing unit, leaving aside for the moment the additional question of tenure choice. These preferences will be reflected in the prices each household is willing to bid for each unit (Fig. 4.5a). The result, in theory, is a *distribution of bid prices* for each unit in the housing stock. When considering all units together, the result is a matrix of bid prices (as in Fig. 4.2). In this simple illustration, household 1 is willing to bid most for housing unit 2, while household 2 is willing to bid
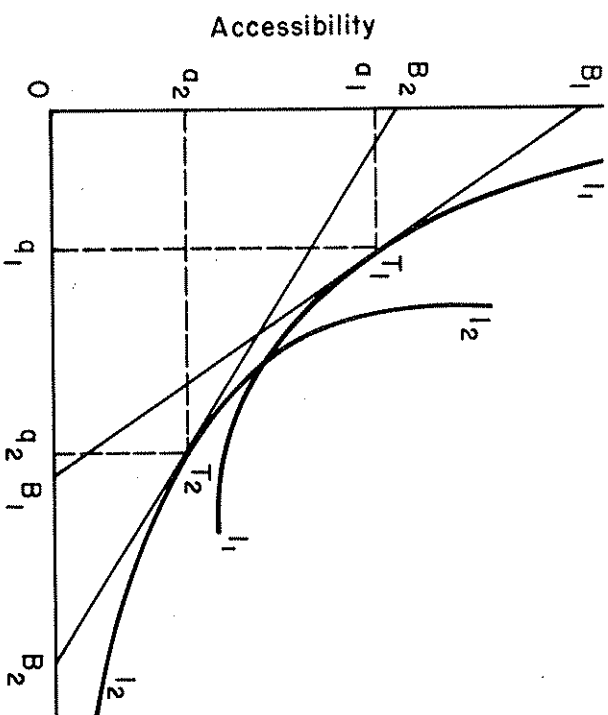
Fig. 4.3. The choice between housing and other goods.

more for unit 4 than for any other unit. In an optimal allocation, household 1 will occupy unit 2, even if the potential bid of household 2 for that same unit is higher.

Each producer (e.g., landlord, builder, owner-occupier) of housing will have an *asking price* for each unit (or units), based on the initial costs of producing (or replacing) that unit plus a premium which he thinks that households currently in the market will pay (Fig. 4.5b). Although one can think in terms of a matrix of asking prices for each household (as shown in Fig. 4.2), in reality there is usually but one asking price for a given unit, which is lowered or raised based upon the households in the market at that time. When the location variable is added, of course, the asking price varies even when the housing units are equivalent.

These transactions also take place over a period of time. During that time, differences in the perceptions of the market, as reflected in the vendors' (sellers') asking prices and buyers' bid prices, are resolved. Thus, over time, we expect a convergence between asking and bid prices until a final sale price is reached (Fig. 4.5c). This convergence may take only a few hours or days, or it may take weeks or even months, depending on market conditions.[3] In a dynamic or tight market, for example, with few housing vacancies and rising prices, the bid price may finally exceed the initial asking price. In a very slow market, this convergence may not take place at all, and the property could be withdrawn from the market. In any
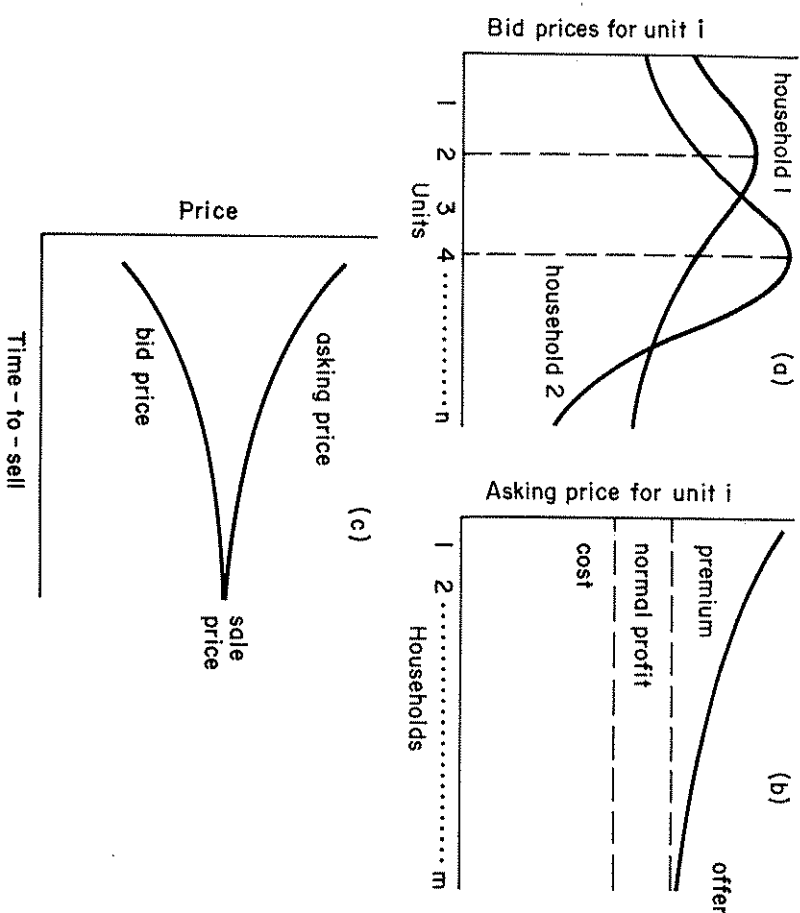
Fig. 4.4. The choice between housing and accessibility.

Fig. 4.5. Components of the bidding process for housing.

case, the behavior of buyers and sellers in these two market situations will be very different.[4]

This model can be extended one step further by adding the effects of different production costs facing producers in determining the kinds (and densities) of housing units which are provided. For illustrative purposes, assume that there is a single production function (with constant returns to scale) made up of only two components: inputs of land (L) and non-land (N) inputs, with the latter including the costs of labor, materials, and capital. For each input there is a single set of prices, r for land and n for non-land inputs. In Figure 4.6, we see that where the price of land is low relative to non-land inputs, more land will be consumed per unit of production and the tendency will be to construct low-density, likely single-family houses. Where the ratio of land to non-land prices increases, multi-family higher-density units will be built, and beyond a certain point, $(\frac{r}{n})_2$, only
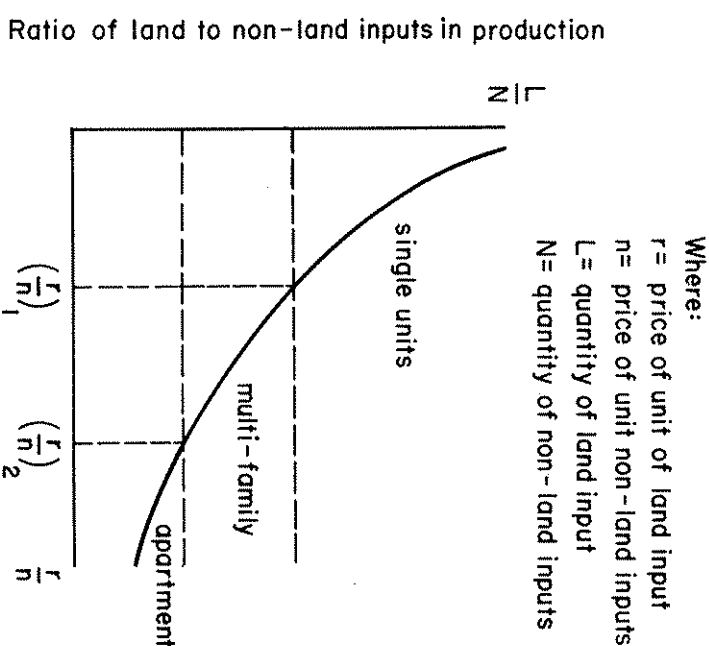
Where:
r = price of unit of land input
n = price of unit non-land inputs
L = quantity of land input
N = quantity of non-land inputs

Fig. 4.6. Determinants of the type and density of housing produced.

high-rise buildings will be produced. Figure 4.6 also provides a schematic cross section of the composition of housing types and densities in a typical city extending outward from the center to the suburbs.

The Process of Bidding for Housing

The actual process which buyers and sellers, or landlords and tenants, go through in setting prices (or rents) is not well understood. In contrast to the process of deciding on a specific location for a house (see Chapter 6), we know considerably less about how expectations, prices, and the rules of negotiation involved in housing transfers are established. One can focus on the behavior of either buyer or seller or of both together, perhaps as Cassidy (1975) suggests, as a temporary coalition formed for purposes of exchange.

Whatever the approach, however, it is clear that each household entering the market faces a given set of *entry conditions*. In the private market, these conditions

usually include price (rent), the down payment required (or rental deposit), credit availability (mortgages) and cost (the interest rate), and the cost of moving and buying or selling (transaction costs).[5] These may also include the costs and difficulties of modifying the unit to suit their tastes and needs, as well as the possibility of discriminatory charges by the seller, estate agents, or lending institutions. Clearly, to consider all these factors simultaneously is an immensely difficult task; yet millions of ordinary people solve such complex problems all the time whenever they buy or rent a house or apartment.

Most households also have some kind of checklist of what housing they need, where they want to live, and what they can afford. They solve the decision problem in roughly that order. For many households, it is not the *nominal price* of the unit which is important, however, but the monthly carrying costs (mortgage plus taxes, utilities, and maintenance) and the *cash requirement* in terms of down payment. The former bears most directly on the household's current income and the latter on household wealth (e.g., assets). This combination leads to an inevitable trade-off between the size of the down payment and the mortgage. In the new housing market, the relative balance of the two is usually specified a priori, but in the older resale housing market both tend to be up for negotiation more frequently, especially if the vendor is involved in taking back a mortgage, as is often the case in the inner city.

The importance of timing in this transaction process should be stressed. That is, while the distribution of buyers and sellers in the market changes markedly over time, the available stock and, of course, neighborhood and accessibility attributes change much more slowly. The former, then, has a more significant effect on the market in the short term.

Who and What Houses are in the Market?

We also know that the proportions of households and properties actually on the market at any given time is relatively small. Depending on local conditions, perhaps only 5 or 6% of all houses in a city come up for sale or rent during a relatively short period of time (6 months to a year). Similarly, only a small proportion of households are actively seeking a new dwelling or a trade, at any given time. This does not mean, however, as noted in Chapter 2, that all changes are confined to units or households on the market. Others find their situation has changed even though they have remained in place, and not entered the market. This distinction between *market* and *non-market* changes is one we use throughout the following discussions.

Of those houses and households on the market at any given time, a substantial proportion are also new (i.e., newly-built housing or newly-formed households and in-migrants). This proportion, which may be as high as 40%, in turn leads to the question of which sector, the new or existing stock, dominates in setting prices in the market. Generally it is argued that the *existing stock is dominant* (Grigsby, 1963), but there is considerable evidence that either the new or resale markets can dominate at different times.[6]
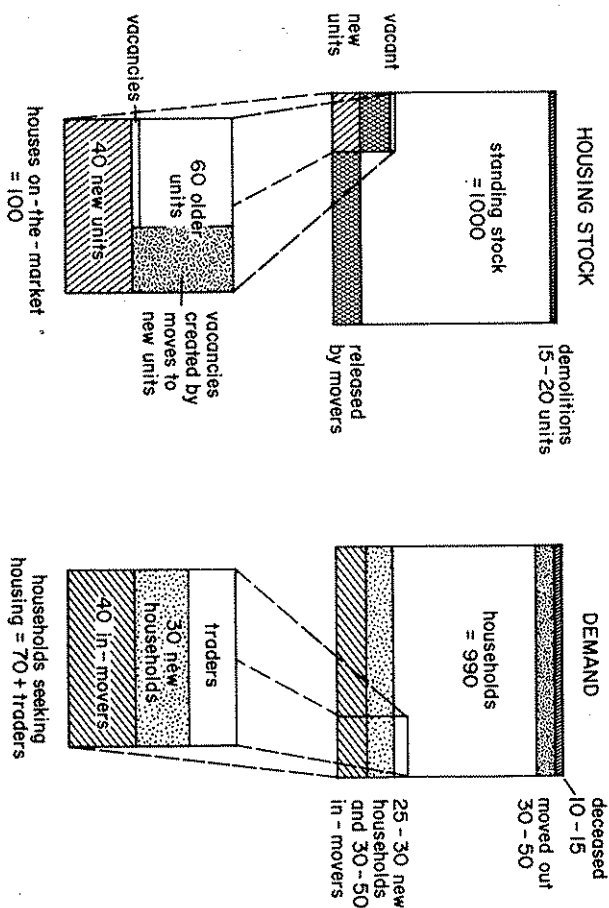
Fig. 4.7. The households and housing units on the market.

To illustrate the changing composition of the flows of households and housing units in an urban housing market, consider a simple example of an urban area with a housing inventory of 1,000 units occupied by 990 households, the difference being vacant units. Over a short period of time, say one year, 15 to 20 units might have been demolished or otherwise removed from the stock, and 30 to 50 units would be newly built. On the demand side, perhaps 10 to 15 households would now be deceased or have been dissolved, 25 to 35 new households would have been formed, and 30 to 50 would have moved to other urban areas. Although we are not considering either the price of the units or the income of households at this point, it is evident that housing units tend to be added at higher than average quality and price levels while new households enter at all levels in the income profile.

The housing market at any point in time might then consist of some 100 units available for sale or rent, and from 90 to 110 households looking for housing, depending on local conditions. Of the 100 units on the market, the following composition might be expected:

60 older units, of which on average:
— 35 would represent units available because of trades between households
— 25 would be currently occupying older units, as well as vacancies

— 25 would represent new vacancies created by the movements of the initial occupants into new units

40 new units, of which on average:
— 25 would be occupied by older households formerly living elsewhere in that market area
— 15 would be occupied by new families or in-migrants

At the end of the period of study, the new stock would then consist of 1,025 units (40 new units less 15 demolitions) and approximately 1,010 households.

The most difficult component of these flows to predict is the number of "traders" (e.g., replacement demand); how many people are in the market in search of a more preferred or appropriate housing bundle. In fact, all households are by definition *potential members of the market* in that if conditions were considered favorable they would undertake to purchase (or rent) alternative housing. In practice, however, only a very small percentage do.

The Actors in the Market: The Behavioral and Institutional View

The housing market is obviously even more complex than that outlined above. Not only does the market not work as neatly as economic theory implies, including the observation that it is never in equilibrium, but in addition it is shaped by a multiplicity of decision makers, rules and regulations. A myriad of participants or *actors* are involved in the real-world production and allocation of housing, all of whom operate within an established system of "institutions." Figure 4.8 outlines the components in this view of the structure of the market.

The focus of this approach begins with the identification of the individual decision-making units or agents involved and the manner in which their behavior is linked to the housing market. The central element is again the market "transaction." This might be any decision to construct or renovate a new house or to transfer a mortgage, but in most instances it implies the purchase (or rental) of a dwelling unit. It also culminates a lengthy process through which housing is constructed, financed, marketed, and then eventually occupied.

The institutional context of housing identified in Figure 4.8 contains both individual and corporate actors, such as government agencies, and it also suggests *guidelines* for the behavior of all actors. The latter includes, for example, the legal system which defines property rights, the financial system which determines who gets what credit (and where), the policy system (national and local government policies) which sets out building and land use regulations, as well as the context of societal preferences and precedents regarding the way we "do business." Any housing market transaction requires the tacit approval (or at least the absence of formal disapproval) from these various actors and conformity with established rules and regulations.

Many of these actors have come under close scrutiny by housing researchers. W. F. Smith (1970), for example, provides a careful review of the role of each actor and institution in the housing allocation process. Others have added notes of criticism regarding those roles. Pahl (1976, 1977) refers to the entire spectrum

PRINCIPAL ACTORS   HOUSING MARKET   POLITICAL AND INSTITUTIONAL CONTEXT

PRINCIPAL ACTORS: Land-owner, Mortgage lender, Speculator, Builder, Developer, Estate agents, Planners, Politicians, Consumer

HOUSING MARKET: Transactions of property and rights

POLITICAL AND INSTITUTIONAL CONTEXT: Legal system, Societal preferences, Land tenure system, Financial system, Land and building regulations, Infrastructure provision, Government policies

Spatial outcomes: occupancy patterns, land use changes, social areas, housing prices, quality changes
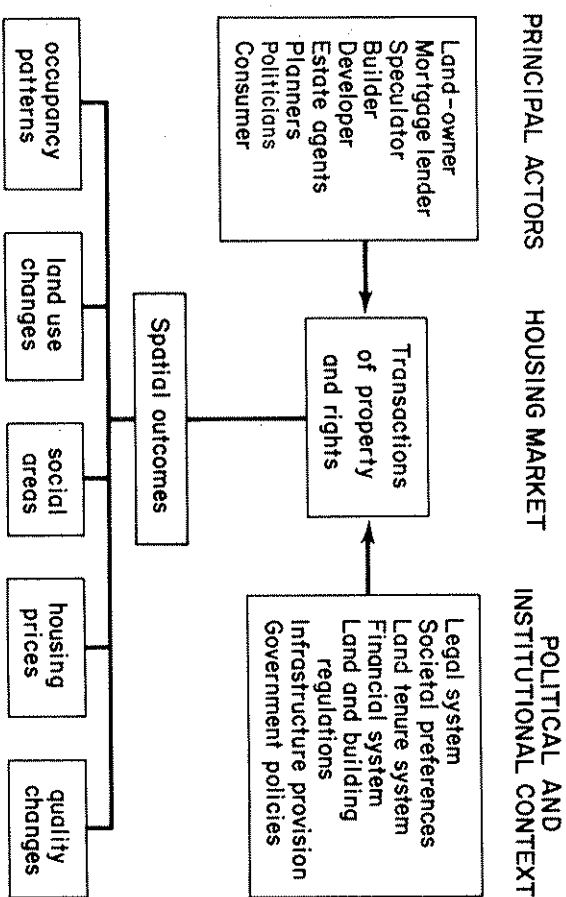
Fig. 4.8. Actors and institutions in the housing market (adapted from W. F. Smith, 1970, p. 42).

of administrators, politicians, and technicians in the housing field as *gate-keepers* who effectively determine who gets what from the housing market and where. Palm (1976, 1979) has examined the role played by real estate agents in shaping the housing choices available to households through their control of market information, and Harvey and Chatterjee (1974) have examined the critical role of mortgage lending institutions in segmenting the operation of housing markets in older parts of the city. Still others have looked at the impact of specific government policies—such as rent control, growth and development controls and fiscal restraint—on housing (see Chapter 9). All form part of the institutional context.

Access to Housing and Housing Conflict

An alternative view interprets the housing allocation process as the result not of a competitive economic market or institutional behavior per se, but of a deeper process of class conflict. Following the earlier classic work of Max Weber, Rex and Moore (1967) argue that housing allocation is a direct function of the class struggle inherent in capitalist societies as well as the central element in understanding the social structure of the city. That structure, they conclude, is the result of "... a class struggle over the use of homes in the city."

That struggle arises, as noted in the previous chapter, when people have *differential means of access* to the housing market. The fundamental cause of such differentials, of course, is the existence of wide differences in income in our society. But, as Castells (1975) and others have argued, it does not stop there. Access to housing, and the very different housing "situations" which this produces, also depends on access to credit, as was noted above. That access, in turn, depends not only on income but on the predictability of the flow of future income. This concept roughly parallels the economists' definition of long-term or permanent income. Income predictability in turn depends on one's career path and occupational status as well as on one's social position and thus one's ability "to use the system."

A person's ability to use the system to gain greater access to housing is further dependent on the ability to gain and use information and social contacts. That ability, as both Harvey (1973) and Castells (1975) argue, is in large part *culturally determined*, particularly with respect to one's familiarity with the cultural values and behavioral norms of the dominant social class (the wealthy and the burgeoisie). To the extent that the poor, the working classes, and new immigrants do not share these same values, or understand or accept the behavioral norms, they are systematically denied a level of access to housing which even their low incomes would allow.

We then conclude that the urban housing market is, at the same time, more than it appears. It is an economic assignment problem, a competitive bidding process, an institutional and behavioral system, and an element in the social conflicts which plague all mature societies.

ONE MARKET OR MANY?:
HOUSING SEGMENTATION AND SPATIAL SUB-MARKETS

Of basic importance in understanding how housing markets work is the question of whether sub-markets exist or not. There are two dimensions to this question. One is whether the stock is partitioned into distinct "segments" in aspatial terms, and the second is whether the urban area is geographically subdivided into "spatial sub-markets." Most students of housing agree that an urban housing market, particularly in a large metropolitan area, does not operate as "one large market" but rather as a series of *linked sub-markets*. But what are sub-markets? How would we know when they are present? What are the links? These questions warrant a relatively extensive treatment here precisely because sub-markets are most likely to arise—and to become socially visible—through the spatial differentiation of an urban area.[7]

Types and Sources of Sub-markets

Sub-markets, as the term implies, may be broadly defined as quasi-independent subdivisions of an urban housing market. Within these subdivisions supply and demand interact to produce homogeneous clusters of housing types or household

characteristics in which there is a unique set of prices (or rents) and between which there is little substitution of one unit for another. While it is obvious that houses and households with similar attributes tend to be grouped in identifiable areas of the city, it is quite another question to assess whether this grouping leads to significant differences in the prices paid for a given amount of housing services.

In general, sub-markets might arise for several different reasons: (1) through the sheer *size* and *heterogeneity* of the housing stock; (2) through the *diversity* of demands placed on that stock by households; and (3) because of barriers or *disequilibria* in the market itself. On average, the larger the urban area the greater is the heterogeneity of the stock and of households, and thus the more likely are sub-markets to arise. Moreover, the substitution of housing over long distances is often impractical. By disequilibria we mean primarily constraints on the supply of housing of given types at given locations relative to the demands for such housing. Inevitably the stock changes more slowly than does demand. Such disequilibria become more sharply focused if additional barriers, such as racial discrimination, are also present.

One consequence of these constraints is that a price *premium* (or discount) may be paid for housing in specific areas in comparison to the price of similar housing in other areas. These premiums, sometimes called *quasi-rents*,[8] are assumed to reflect geographic differences in the operation of the market within particular neighborhoods, but also may identify the existence of spatial sub-markets.

An examination of the literature reveals an immense diversity in the definition and use of sub-markets (Table 4.2). The range of criteria used to define those sub-markets, the variable number of sub-markets, and the list of attributes of the geographic areas involved are immense. Sub-markets have been defined simply on the basis of the newly-built and resale housing stock (Maisel, 1963), on areas of changing social status (Maher, 1974), on municipal boundaries (Straszheim, 1975), and on the zones created by the differential behavior of mortgage-lending agencies (Harvey, 1973, 1977a) and real estate agents (Palm, 1978).

Each of these approaches varies in purpose and concept. Some have had the identification of sub-markets as their primary objective. Others have used the definition of sub-markets as a necessary stepping-stone to subsequent analyses, and still others have assumed the existence of sub-markets without really acknowledging what they were doing. Few have actually taken the trouble to test whether their zones are in fact spatial sub-markets.

Alternative Definitions, Criteria, and Tests

The most common use of the term sub-market is perhaps a simple *taxonomic* or classification use. Conventionally, the stock is divided into tenure classes (owner-occupied vs. rental), structure types (apartment, row housing, and single-detached), and value (price), while households are classified by income, family type, and race or ethnic origin. These categories in turn may be subdivided by location within the city (e.g., inner city or suburban), or with reference to work locations. Figure 4.9 provides a summary of these traditional definitions.[9] The limitation of the use of the term sub-market here is that while these criteria do differentiate visible

Table 4.2. The Diversity of Definitions and Applications of Housing Submarkets: Selected Examples

| Author	City	Principal criteria for classification	Types	
			Number	Examples
Grigsby (1963)	Philadelphia	location, tenure value race	many	central city/suburban owner occupied/rental high; medium/low price black/white
Needleman (1965)	London	tenure	4	local authority; owner-occupied privately rented (furnished) privately rented (unfurnished)
Maher (1974)	Toronto	social status	5	regions: stable single-family increasing ethnicity increasing social status increasing population and crowding
		tenure	2	owned/rented; high turnover
Harvey and Chatterjee (1974)	Baltimore	location, income, ethnicity, mortgage financing and turnover rates	12	grouped into 8 areas or general types primarily on the basis of housing prices and finance: e.g., ethnic South Baltimore
Kain and Quigley (1975)	Pittsburgh	density, size quality (age) and tenure	30	basically structural: 15 types cross-classified by interior size, building type, lot size and tenure, for each of two time periods: post 1930 and pre 1930.
Ball and Kirwin (1977)	Bristol	multivariate: socio-economic and stock variables	11	identified as clusters of homogeneous attributes: primarily a social typology; students, affluent, immigrants; and tenure.
Palm (1978)	San Francisco–Oakland	Real estate information– Boards of Realtors districts	7	real estate districts are aggregations of municipal units (e.g., Marin County), defined by a principal components analysis of social, housing and environmental variables.
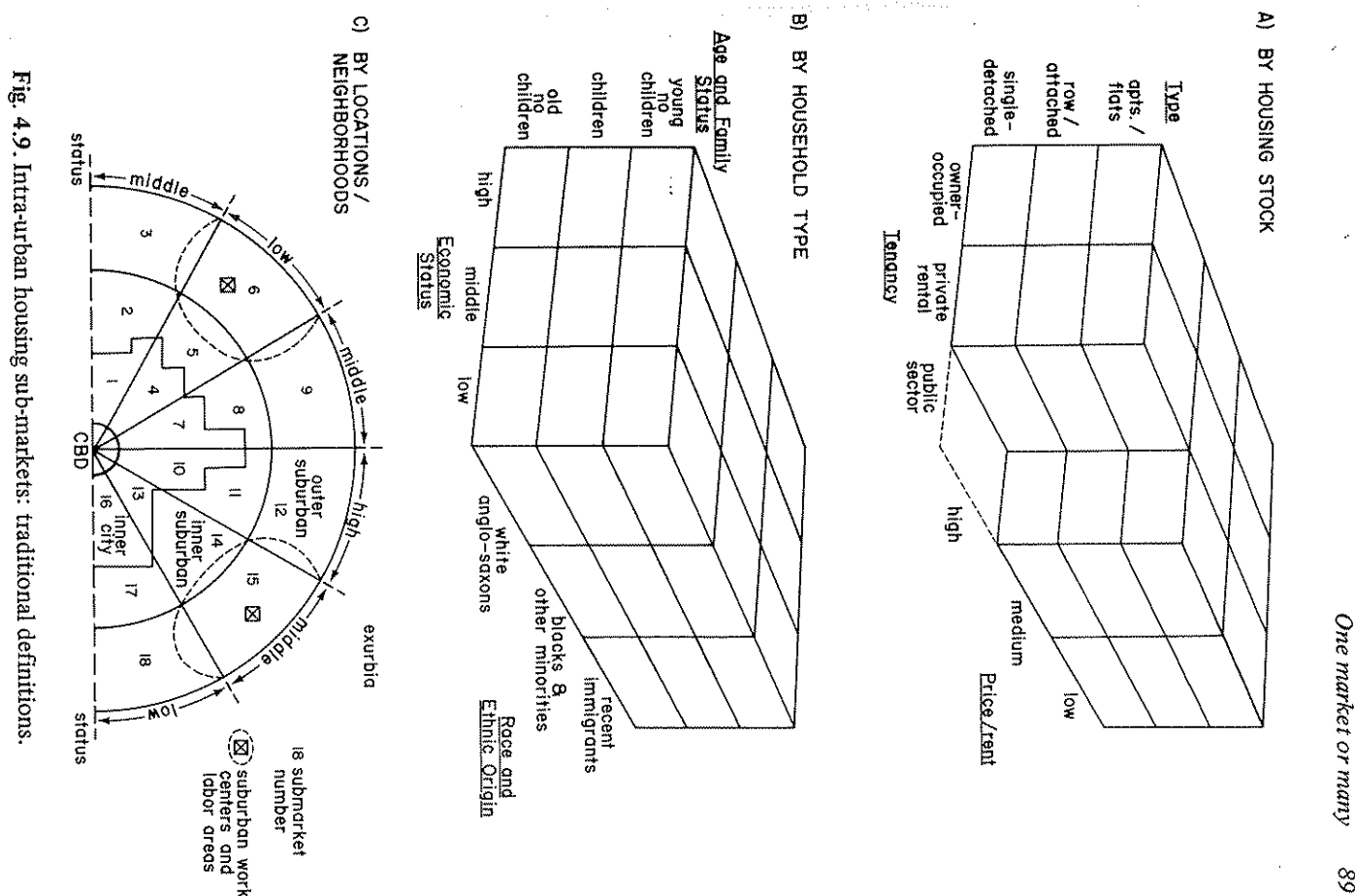
Fig. 4.9. Intra-urban housing sub-markets: traditional definitions.

A) BY HOUSING STOCK

B) BY HOUSEHOLD TYPE

C) BY LOCATIONS / NEIGHBORHOODS

subdivisions of the stock and its inhabitants, it remains to be proven that they also represent real differences in the behavior of the market.

A second approach makes use of the concept of *substitution* among housing types and locations which we employed earlier in this chapter to delimit the outer boundaries of an urban housing market. Grigsby (1963, p. 34), for example, in his classic study of housing in Philadelphia, defined sub-markets in the following way:

the test of whether two dwelling units are in the same submarket is whether substitutability is sufficiently great to produce palpable and observable cross-relationships with respect to occupancy, sales, prices and rents . . .

He argued that substitution could be measured empirically by observing the number of movements or *transitions* of households between one sub-market and another. Converting the number of movers into proportions would then provide a matrix of transitions and a direct assessment of how closely linked are housing movements in different areas. Obviously, some movements take place between almost all sub-markets, although the probability of movement declines with the *distance between the sub-markets*, with distance measured in terms of value, social class and structural type as well as geographic distance. The result then is a gradation of movements (or linkages) between sub-markets but with every sub-market linked most closely with those nearest to it. This is what is meant by a series of "linked sub-markets."

A more formal statement of substitution among sub-markets looks to the *cross-linkages* between demand and price. One such measure relates the proportionate change in the consumption of one kind of housing to the proportionate change in the price of other kinds of housing. In symbolic terms:

$$\eta_{ij} = \frac{\Delta q_i}{q_i} \Big/ \frac{\Delta p_j}{p_j}$$

where q refers to quantity and p to price for two types of housing units, i and j, respectively. If the coefficient η_{ij} is small or zero, then a change in the price of unit j (that is Δp_j) produces little or no effect on the quantity of housing type i consumed. The two units can then be said to be in separate sub-markets. On the other hand, as η_{ij} becomes progressively larger, then it can be assumed that the two types of housing units are good substitutes, and therefore can be considered as being in the same market. In this way it is likely that the demand for expensive, detached single-family houses in the suburbs, to take an extreme example, could be easily separated from that for low-cost, low-quality inner city housing.

A fourth approach actually tests whether the prices paid for similar bundles or attributes of housing are distinctly different in the various parts of an urban area. This might involve the comparison of a series of regression equations, with price as the dependent variable, one fitted for the entire urban housing market area and the others fitted to the same area disaggregated into potential sub-markets.

If the fit of the equation is better for the sub-markets than for the entire urban, area, the researcher would conclude that sub-markets exist *and* that they help to "explain" the spatial behavior of house prices. Straszheim (1975) and Palm (1978), for example, found that disaggregating the housing market of the San Francisco Bay area in this way significantly improved their ability to explain variations in house prices. However, Schnare and Struyk (1976) and Ball and Kirwin (1977), in studies of Boston and Bristol, respectively, did not.

Spatial Sub-markets: A Summary

One might then conclude that sub-markets for housing do exist, but that their importance—in terms of influencing market behavior, prices, and the choices open to consumers—remains to be established. In part, the confusion over the use of the concept derives from the obvious fact that the methods of testing for significant differences in house prices seem so far removed from the reality we observe. The ghetto tenement, the suburban box, and the leafy mansion district must be in distinct sub-markets, we ask? They are, of course, but not necessarily in terms of the prices paid for each unit of housing quality, and not if they all respond to essentially the same pressures of supply and demand.

A more fruitful approach perhaps is to focus on those specific constraints in the housing market which one would not expect to appear uniformly across the urban area. As examples, spatial sub-markets might arise as a result of:

supply restrictions: the limited availability of certain kinds of housing which is in demand, but which cannot be easily reproduced (e.g., 19th brown-stones or low-cost older units).

accessibility restrictions: some houses may have a unique location, which conveys to them an additional benefit (or liability) in terms of accessibility (i.e., single-family housing within walking distance of the center).

neighborhood restrictions: for various reasons, particular small areas can and do become especially attractive (or unattractive), for which entry is limited and people will pay a premium (or discount).

institutional restrictions: perhaps the most obvious is the practice of redlining, in which mortgage-lending agencies refuse to lend in certain areas. Other examples include the effects of building codes, zoning and planning regulations.

racial, ethnic, and class discrimination: the obvious problem that certain families are limited in their search for and choice of housing because of direct exclusion.

information restrictions: some households have differential access to information on housing opportunities, and on how the market works.

The combined result of these restrictions is that the prices paid for certain houses, by certain types of households, will be more (the premium) than might be expected for similar housing in other areas, and that movements of households between areas would be less than one might predict. The important distinction is to discover where these differences in price (or rent) are paid intentionally and where they are paid because people have no choice.

Why Are Sub-markets Important?

Despite its complexity, the sub-markets question is important. First, as in any situation where spatial disaggregation is necessary, the way the urban housing market is subdivided for purposes of research shapes the results and insights obtained. It is preferable that such subdivisions be based on their relationship to the operation of that market. Second, sub-markets are important because the assumption that they exist permeates much of the literature on residential mobility, neighborhood change, ghetto formation, racial segregation and housing deterioration.

The sub-market issue is also relevant to housing policy. Simply put, if independent sub-markets do exist, then policy initiatives must be directed to particular segments of the stock and to specific areas of the city if they are to be most effective. If they do not exist, then policies can be uniformly applied across the entire housing market. Under the latter assumption, that all segments and areas are interdependent, the effects of construction subsidies or housing allowances, for example, will (eventually) work their way through the entire market. The impact of housing policies formulated under these two interpretations will be very different indeed.

Finally, even if it is not possible to empirically identify sub-markets on the precise, but rather narrow, criteria of substitution and independent price schedules, it is important that we identify where price differentials do exist and who pays them. The size of these differentials, and the fact that certain groups in society tend to carry the burden, are sufficient to warrant further investigation. But until the actual market implications of these differentials are assessed, perhaps we should only label the geographic areas involved as "market areas" or housing "regions."

NOTES

[1] Excluded here are those societies and cultures, such as rural subsistence cultures, in which housing is produced and consumed individually or in small groups.

[2] More formally stated, the allocation process might be considered efficient in economic terms if the prices of adjacent residential properties (e.g., single lots for housing) are equal at their boundaries. If they are not equal, a transfer of some portion of that lot would in theory take place resulting in both households being better off than before.

[3] A useful measure of the short-term performance of a housing market, noted in Chapter 2, is the "time-to-sell" or "wait-time." This is the period between the listing of a property and the actual sale.

[4] Note also that the behavior of buyers and sellers will be different simply because each owner-occupier will have a different assessment of their own housing unit than will a buyer. The latter very likely will be indifferent among several similar units currently on the market.

[5] Typical transaction costs for owner-occupied housing include fees for the search and registration of the title or deed to the property, land transfer taxes and fees (if any), insurance, and lawyers fees for conveyence. More broadly defined, transaction costs may also include the physical costs of moving house.

[6] There are very wide differences between urban areas in the proportion of houses on the market which are new, reflecting different rates of population growth and levels of prosperity.

[7] The following discussion draws heavily on previous papers by the author and his associates (Bourne, 1976; Bourne and Simmons, 1978; Bourne and Hitchcock, 1978).

[8] Quasi-rents are a form of economic rent, which refers to the surplus element in charges for the use of land and housing over and above what would be considered as normal rent.

[9] The spatial pattern of sub-markets in Figure 4.9c would, of course, be substantially more complex in the large and multi-centered modern metropolis, particularly with the growth of large employment concentrations in suburban areas.