3   The housing system

Introduction

The basic idea underlying LHSA is that housing is a system. Any system has a number of key components that interact in some way. Systems can be more or less complicated, and the housing system is in truth quite complicated. However, a system perspective allows us to understand housing problems better and therefore to resolve them more effectively than might otherwise be the case.

Systems theory applied to housing is considered in detail in annex 2. Using that annex as a base, this chapter:

- Summarises the notion of a 'housing system'.

- Considers the market and non market components of the housing system.

- Identifies the signals that act as links within and between components of the housing system.

Systems thinking

Housing as a System (and Subsystem)

Housing can itself be thought of as a sub component of a bigger system. Within a local area (defining what local means in housing terms is discussed in chapter 4) what is happening to housing cannot be understood without recognising that broader economic, demographic and social trends are having impacts. (Recognising and allowing for these is the subject of chapters 5 and 6 respectively).

The housing sector itself is made up of interacting, separate but connected parts. Most obviously there are the various housing tenures, but these are themselves complex systems, made up of smaller parts. These can be characterised in a variety of ways.

How should the parts of a housing system be defined for analytical purposes? There is no unambiguous answer to this question. In part it will depend on the question to be answered. Another key consideration will be the availability of data. Annex 2 discusses the idea of consumer groups and product groups as a way of thinking about the housing system. From an analytical perspective, this is very attractive, but data is frequently a problem in adopting this approach. At a bare minimum however, it is important to think through the major links between the following when analysing a local housing system:

- New build, resale and right to buy markets.

- Social housing owner occupation and private renting.

- General and particular needs.

- Need and demand.

These links are the subject of chapters 8-13.

A fundamental issue is the relationship between market and non-market systems.

Market and non-market systems

Most local housing systems will contain both market and non-market sub-systems and it is important to understand the different kinds of observable signals these systems generate and what they mean.

The fundamental characteristic of a market system is that consumers (or purchasers) make choices, which reflect the interaction of their preferences, and budgets with the prices of goods and services. They do so in order to secure maximum satisfaction from their available resources. Firms as producers or sellers make their production and sales choices on the basis of costs, the degree of competition and anticipated demands. Producers aim to maximise profits. Where consumers are prepared to purchase all of the good supplied at the ruling market price then equilibrium or balance is said to prevail.

In a competitive market system the self-interests of a myriad of consumers and producers ideally lead to a balanced, orderly system outcome. Where goods are in short supply consumers are encouraged to switch consumption to alternatives as prices rise, and at the same time rising prices attract new supply. Prices and profits are the signals in markets, which generate balancing adjustments.

A number of factors can prevent this. Where sellers have monopoly power, then the appropriate market outcome or balance will be frustrated. Moreover, in housing markets, price and profit signals are not always clear. In rural markets the low volume of specific, varied transactions may make it difficult to observe price trends. In complex metropolitan markets clear price signals in one sector may still leave developers unwilling to react as they are unsure of how many other developers are similarly reacting within linked sectors. Economists refer to situations where markets fail to adjust to balance, or to provide efficient outcomes, as situations of market failure. Table 1 develops the concept of market failure in more detail.

Table 1: Market failures, housing and intervention

LHSA requires useful analytical frameworks that can order thinking and help analysts work their way around complex problems. Market failure is one such framework. Increasingly, analysts describe housing problems as market failures. Normally, they mean situations of chronic imbalance – where supply and demand remain out of equilibrium (e.g. low demand markets) or where the reputation of poor quality neighbourhoods has an effect on adjacent housing prices and ease of resale. Market failure is also cited in situations where it is difficult to provide a working land market that allows housing development to take place.

The main forms of market failure can be listed and defined as follows:
Monopoly/imperfect competition, Competitive outcomes produce goods and services in an efficient response to demand at minimum cost. In the extreme, if competition is replaced by monopoly power, then there is no external competitive pressure to keep prices down and quality up; indeed, the monopolist may have scope to discriminate against groups of consumers and otherwise exploit its market power

Information failures. A precept of efficient competitive markets is that both producers and consumers are well informed in terms of prices, quality and related data important to making good economic decisions. Of particular relevance are failures in the capital market where lenders refuse loans or set unaffordable terms because of a lack of information about their potential clients' capacity to pay. This is known as a missing market (referring to knowledge about the future).

Externalities. Also known as spillovers, these refer to situations where the social cost of production or consumption does not equate to the social benefits of the activity. Examples include pollution or environmental damage and public health externalities flowing from vaccination. In the former case, private decision-making takes insufficient account of the wider impact on society.

Public goods. The market cannot produce certain goods and services because they are non-rival, that is, one person's consumption does not prevent others consuming the good or service. If property rights break down and consumption cannot be excluded (as with national defence or, more locally, public parks, coastal views, etc), the state must provide the service. However, an additional problem is that there is no obvious way to price the good or service efficiently because each consumer has an incentive to understate their willingness to pay (the free rider problem).
How relevant are these concepts to modern housing markets? Despite what one may think, social housing is not a public good – one person's consumption does prevent someone else from consuming (i.e. there are clear

---

and enforceable property rights). Externalities are pervasive in housing markets because of housing's key characteristic of being fixed in space and because neighbourhoods and locational accessibility factors influence the attractiveness and hence perceived value of properties. The public health externalities associated with overcrowded slums was a key reason for the original clearance and building of council housing. Informational problems are also characteristic of the housing market – our knowledge of current housing market circumstances is partial, spatially limited and subject to rapid decay over time. Housing is a complex commodity, idiosyncratic and highly varied. This fact makes information valuable. Consequently, information agents play an important role in modern housing markets. At the same time, housing is expensive and so the functioning of capital markets is important to the underlying efficiency of the housing market. Market power is an empirical question but could exist at different scales – a dominant landlord in a neighbourhood or city, a developer with control over the potential land bank, etc

Two other forms of problem commonly identified as a 'market failure' in the housing context (though not strictly speaking so in the conventional sense) are:

Dynamic or volatile markets. Housing markets are relatively unstable, prone to cyclical change and to unanticipated volatility in prices in both directions. This creates opportunities for speculation, which can worsen the instability and affect housing opportunities for households seeking housing

Inelastic or unresponsive supply. A reason for the volatility is that supply does not respond quickly to changes in demand or to price signals. This may be because of problems in the land market, inertia in the planning system or problems in the construction industry. Sluggish supply responses indicate that one cannot assume speedy market adjustments

The State can intervene in different ways to tackle these market failures. The main forms of intervention are

Regulatory. The enforcement of rules, laws and procedures that change the basis by which markets can operate (e.g. outlawing monopoly or restricting prices and enforcing competition).

Subsidy/tax and finance. Changing the cost of a good or service in order to make it affordable, to change incentives or to achieve other objectives

Income transfers. Redistributing income to low income groups either to provide specific consumption or general income transfers either by right, means-test or for categorical reasons

Direct provision. The State can of course simply provide the good or service on a non-market basis. This can be the direct political solution, at least initially, to a public policy problem

When are specific forms appropriate? The simple rule is that the punishment should fit the crime – the form of intervention should be sufficient only to tackle the specific market failure. Barr argues that while there might be a case for subsidy (externalities) and regulation (capital markets) this would not extend to tax relief or to direct provision

A good example of the sensitive use of market failure-based intervention is the Scottish Enterprise RAPID property market policy menu. Here, a range of interventions from providing information, through loan guarantees, subsidy and even joint ventures and provision were designed to tackle the forms of property market failure faced within the Scottish economy. Subsequent competition rules from the EU have ended this policy but one can grasp its aim and scope provided the policymaker can accurately diagnose the specific problem at hand

This last point is important. The other side of the coin is state failure – where state intervention actually makes things worse (Whitehead 2003). Why might this happen? Governments may misunderstand the impacts of their intervention – there may be unintended consequences such as the negative impacts of rent controls. Second, bureaucrats may have their own agendas related to personal prestige and power rather than the interests of society. Third, the absence of market disciplines such as competition, may lead to inefficiency and a lack of pressures to innovate. It is not enough to identify the market failure, it has to be appropriately tackled and those polices have to be efficiently implemented. This is often quite a tall order. However, the framework is a highly useful one for helping the analyst organise their thinking and look for the reasons behind adverse market outcomes.

Non-market housing systems contain radically different signalling and resource allocation mechanisms to those found in the market. Non-market systems essentially aim to let houses at below market rents (otherwise, unless the market was suppressed by legislation, households would shift to the market sector). When rents or prices lie substantially below market prices situations can

arise where more housing is demanded than is available. In current housing policy terms this is often referred to as excess or pressured demand. In consequence, queuing procedures have to be devised and socially determined allocation rules applied. 'Queues' rather than 'prices' now signal entry interest and the observed flows reflect assessed needs priorities rather than real demands. In a complex housing system with different types and sizes of housing, queues will relate to sub-sectors and areas. Allocations made reflect, primarily, social priority and chance, rather than preferences and incomes.

The Scottish housing system at the local scale is typically mixed. A market sector with elements of regulation and subsidy, of growing scale, and predominantly owned rather than rented, co-exists with a declining, diversifying social or non-market sector. Further, as the ownership of social housing diversifies through stock transfer and social landlord creation, more diverse social sector sub-systems are developing.

Although social and market sectors are separate they are linked, not least because households move between them, and builders/developers operate across them. Sub-system structures and interactions are discussed below.

Understanding market systems

A key idea in understanding how market systems operate is the responsiveness of quantities, either supplied or demanded, to changes in prices. Economists measure these relationships using the concept of 'elasticity', in this case the price elasticity of supply and demand. Technically, the price elasticity of demand for a commodity is measured as the percentage change in quantity demanded induced by some percentage change in price (the relationship is almost always negative). Likewise, the price elasticity of supply is the percentage change in supply induced by some given percentage change in price (the relationship is positive). Table 2 provides more detail on the concept of elasticity.

Table 2: Elasticities
Own price elasticity of demand
The (own) price elasticity of demand tells us how much demand for a good changes when its price change. It is a measure of responsiveness. The larger the value the more demand changes for a given percentage change in prices. Elasticity measures are useful summary indicators. Economists distinguish between inelastic demand and elastic demand. Inelastic demand implies that the percentage change in demand is less than the change in price. Elastic demand implies that the change in demand is bigger than the change in price. Thus a five per cent fall in prices might lead to a six per cent increase in demand This is why there is a negative sign on price elasticities of demand.

Some examples of empirically constructed price elasticities of demand are:

Dairy products	-0.05
Bread and cereals	-0.22
Fuel and light	-0.47
Alcohol	-0.83
Entertainment	-1.40

Economists generally believe that the greater the ease with which consumers can substitute another good that fulfils the same function, the more elastic demand will be.

Cross price elasticities

The cross price elasticity of demand measures the change in demand for a good when the price of another good changes. The key issue here is the relationship between the two goods. If there is none then the cross price elasticity will be zero. The two usual cases concern situations where demand falls when the price of the other good increases (e.g. bicycle helmet demand when the price of bicycles increases) known as complementary goods; and when demand rises when the price of the other good increases (e.g. the demand for tea when the price of coffee rises) known as substitute goods.

Income elasticities

Lots of other factors affect demand, the most important probably being income. Economists distinguish between normal goods (demand increase following an increase in income, measured proportionately) and inferior goods (when demand no longer increases when incomes rise). Many staple or subsistence items are necessary goods. Housing is a normal good but may possess also some of the attributes of superior or luxury goods (goods with an income elasticity in excess of one).

Inferior Goods	Elasticity < 0	Bread
Necessity	Elasticity 0< 1	Food
Normal	Elasticity > 0	Housing
Luxury	Elasticity > 1	Yacht

Market supply

The term supply is used with quite different meanings in housing analysis. This is discussed in detail in chapter 7. In examining the movement and impacts of market prices in an area the focus is likely to be on new housing supply plus turnover of existing stock.

Where supply is responsive to price, then market systems are usually regarded as producing satisfactory outcomes, as small price rises will trigger extensive supply responses. However, research suggests that housing supply is relatively inelastic and this is more so in the UK than in many other advanced countries. This could be due to the effects of policy and planning on the development, or it may reflect inefficient, monopolistic or speculative behaviour on the part of residential developers and landowners.

Supply responsiveness can only be assessed meaningfully in the context of an explicit timeframe. The short run is the immediate period in which a market has to deal with the supply that is already available. That is, in the short run there is little if any supply side response to change in demand. The long run is the period in which new capital or firms can be employed in a sector. Clearly the balance of price and investment responses to market shortages and surpluses will differ between the short and the long run. In the shorter period price effects dominate and in the longer period quantity adjustments may prevail. Research on the housing construction sector shows that elasticity or responsiveness in the longer period is substantially higher than in the short term.

Market demand

Estimates have been made of price elasticities of demand for housing in Scotland. Analysts should not expect to undertake such estimation but should make full use of what we know from this research.

In the short term and particularly in the longer term, factors other than price influence demand. Longer-term variations in demand for housing are likely to be driven by changes in income and wealth, changes in taste, fashion and lifestyle and changes in the housing product available. There are no general laws about these effects.

Research across a wide range of contexts shows that the income elasticity of demand for housing lies above 0.5 and below 1; households spend more on housing as incomes increase but they do so at a rate less than their growth in income (Table 3 provides estimates of both price and income elasticities for Scotland as a whole, and the main Scottish cities). Available studies of how the demand for different housing attributes responds to income change suggest that the demand for both structure quality and neighbourhood quality increases more as incomes rise than does the demand for size of house.

Table 3: Empirical measures of demand elasticities in Scotland

Kenneth Gibb and Daniel Mackay (2001) used the 1996 Scottish House Condition Survey to derive estimates of the price and income elasticities of demand for Scotland and for specific cities within Scotland. These are reported below and compared with standard results from the literature. The study uses a rigorous economic methodology first employed by Ermisch et al (1996).

Table 1 Elasticity estimates (all areas combined)

Elasticity	Specification 1 (all variables)		Specification 2 (exclusion of demographics)		Specification 3 (all variables)	
	Permanent income measure	Current household income	Permanent income measure	Current household income	Permanent income measure	Current household income
Income	0.66	0.28	0.53	0.31	0.62	0.26
Price	-0.92	-0.88	-0.91	-0.89	-0.73	-0.71
Adj R2	0.49	0.49	0.47	0.47	0.49	0.49
Sample size	1768		1768		1768	

(Note 'permanent income' is a measure of household income that excludes transitory factors such as one off bonus payments. Current income includes such factors)

The elasticity estimates in table 1 are striking and robust. The elasticities of current household income, 0.26 to 0.31 are, as we would expect, much lower than the estimates based on permanent income, 0.53 to 0.66. The price elasticities are also fairly stable moving within the narrow band –0.71 to –0.89 but increasing to –0.73 to –0.92 when a more robust measure of permanent income is included in the regression. The estimates of the aggregate price elasticities of demand are markedly higher than the past and recent UK estimates but are broadly similar to those found in the US. The income elasticities, on the other hand, are very similar to both UK and US estimates.

When the data is disaggregated by city area, the core model elasticities generated were: for Glasgow, -0.55 (price) and 0.6 (income), Edinburgh –0.5 (price) and 0.7 (income), Dundee, -0.8 (price) and 0.3 (income) and, the outlier, Aberdeen –1.2 (price) and 0.65 (income). The Aberdeen price elastic effect creates a strong upward impulse in the overall elasticities reported in Table 1. Removing Aberdeen reduces the central elasticity estimates for the three other city areas combined to –0.5 (price) and 0.6 (income). However, until it is demonstrated that the Aberdeen results are in fact a statistical aberration, there are no grounds for removing them.

In summary, we find that the price elasticity of demand for Scotland is about –0.8, an unexpectedly high but still inelastic estimate. However, the relatively high value can be accounted for by large area variations in the elasticity estimates. After splitting the sample by area, price and income estimates dropped to nearer –0.5 and 0.6, respectively. For the present, however, the higher value results remain our central estimates. The study also found that both tenure and mobility decisions do impart important, statistically significant, negative biases into the results.

References

Ermisch, J, Findlay, J and Gibb, K (1996) 'The Price Elasticity of Housing Demand in Britain: Issues of Sample Selection', *Journal of Housing Economics*, Vol.5, pp.64-86.

Gibb, K and Mackay, D (2001) *The Price Elasticity of Demand for Housing in Scotland*. Department of Urban Studies Working Paper, University of Glasgow

Patterns of market adjustment

If the flows of vacancies and the flow of households searching for housing are in balance then the housing market will clear without price change above the rate of inflation, or further adjustment. If vacancy and searcher flows are not in alignment then imbalance and adjustment, signals will emerge over different time periods. Table 4 provides an example where it is assumed that housing demand exceeds supply (although in reality local housing markets are rarely impacted by a single, easily tracked demand side shock).

Table 4: Housing market adjustment patterns	
Action	**Signal**
Short-term:	
Recognising shortages, searchers will increase price bids	• Prices rise
Search activity and displacement increase	• Search times lengthen and location shifts
	• Selling times fall
	• Turnover increases
	• New unit prices increase
	• Presales rise
Medium-term	
Developers speed-up completion rates	• Undeveloped land stocks fall
Competition for zoned sites increases	• Land prices rise
	• New starts increase
Long-term	
Increase new supply	• Increased housing output
New patterns of residential mobility established	• Higher house prices
	• Inflation rate in housing market slows as supply and demand convergence
	• Resident dissatisfaction with locations/house type purchased in supply-constrained periods/locations

Consumer search behaviour and 'latent demand'

For housing, key market signals are house price changes, household movement flows, and sales and new supply rates. However, these reflect choices being made not just on the basis of resource constraints facing firms and households but also on the basis of information, planning and policy restrictions. These may mean that there are gaps between what consumers would demand at the ruling market price and what is actually provided. These are what are called latent or hidden demands. Identifying latent demands involves looking for the signals typically associated with their presence; in particular the nature and pattern of failed bids, search activity and subsequent migration patterns.

The consumer search process typically involves a two, or even three-stage 'matching' process. First, consumers may undertake an 'orientation' search in which the locational/house type characteristics desired drives a low-cost first scan of available property. Second, more intensive search of specific vacancies takes place prior to bidding. Thirdly, after purchase bids are made some, indeed the majority in all but the slackest housing markets, fail. Consumers, either learning new preferences or confronting real constraints, will then adjust the properties/areas in which they regard, on the basis of past bidding, purchase as feasible. The alternative is to raise price bids.

The way in which households chooses to adapt their search process, either through changing the sorts of housing they are willing to consider or the price they are willing to pay, is valuable information for housing analysts.

• If consumers only adjust the price they are willing to pay and will not consider alterative types or locations of property, the planning implication is that there may be a requirement to increase output in such localities or in as close substitutes as possible. In short, sustained real house

price inflation relative to surrounding areas is a clear signal of shortages in specific volume and types of housing.

- On the other hand, if households broaden their search patterns to include a wider range of properties and locations then it can generally be assumed that consumers regard these alternatives as reasonable substitutes.

If prices for specific properties/areas continue to appreciate disproportionately then the reasons for non-supply response need to be identified. Analysis of household search processes can therefore reveal key pressures and linkages within local markets and suggest where latent demands really exist.

The non-market sector

Non-market housing systems, such as council and housing association provision, are shaped by allocation mechanisms that contrast markedly with the market sector and, in consequence, generate very different signals of imbalances. In a non-market housing system household views on what the system provides and how it is structured will be revealed by search/queuing behaviour. Clear demands, in the economic sense, are never expressed in a non-market system.

Well-designed allocation processes, including application forms, can produce important signals. The tenure and locational origins of applicants can be used to identify key linkages within social housing and into the market sectors. Transfer applications can provide particularly important information about potential imbalances **within** the social sector – a key concern in older, maturing social systems. Internal mismatches are often critical in limiting social landlords' capacities to respond to changes in household circumstances (e.g. job location change, children leaving home, retirement etc).

The responses of applicants to offers of accommodation are also important signals. An offer of accommodation may more or less meet with a household's preference. Where they match closely then an offer will be accepted quickly. Where they do not, the household has a choice to make. If offers can be refused without penalty to the applicant, that is they are not demoted in the queue, then some households may reject an offer and wait for the next one. Where the household has acute housing 'needs' then accepting a poor offer may still be preferable to rejecting it.

Signals conveying important information regarding the operation of non-market housing systems include:

- Number of new lets per period.

- Lets to locals per period.

- Vacancies arising from households transferring.

- Vacancies arising from deaths/household dissolution.

- Vacancies arising from transfer out to other tenures and areas.

- The stock of unlet vacancies and its duration profile.

- Refusal rates.

Allied to figures on the applicant queue for particular areas/property types, refusal rate indicators can reveal much about:

- Household/stock imbalances at the local scale.

- The characteristics and extent of low demand housing.

- Flows between tenures.

The notion of product and consumer groups is also potentially useful in analysing the non-market sector. Whatever categorisation is used however, in order to fully describe a local housing system and to develop coherent strategies, it is essential that signals are identified and monitored. If this is not done, the sector remains a black box of unknown problems and linkages. This is no longer acceptable politically, given that system functioning problems in particular places may be as least as important as new investment requirements.

Housing need

Social housing is primarily provided to address housing need. The earlier discussion of demand and market choices highlighted that a relatively clear theoretical understanding of what market demand is facilitates analysis. However, no such clear understanding exists in relation to 'need' or to the role of consumer choice in social housing systems.

Demand is defined as expressed choice, reflecting willingness and ability to pay for housing. Need is defined very differently. It is based on value judgments concerning what constitutes adequate housing provision. Those who cannot afford to secure such housing in the market place are deemed to be in housing need.

This definition contains two important political/ethical decisions:

- First, there is the judgement of what constitutes adequate housing in terms of the physical quality of the stock, the suitability of a property for its current occupant (e.g. overcrowding) and housing management standards. This is discussed in detail in chapter 7.

- Secondly, there is the political judgement regarding the reasonable burden of housing costs that households should incur in securing adequate housing. A needs judgement involves both 'standards' and 'affordability' elements. Affordability is discussed in chapters 8,9,10 and 12.

Discussion of housing need often involves considering households of a particular type, such as elderly people, people with physical disabilities, those who have had a mental illness or have learning difficulties, travelling people, refugees, ex-offenders, abused women, young single homeless people and, more recently, people with drug or alcohol problems and those who are HIV positive. However, the 'needs' covered within this list are diverse.

The issues involved are discussed in detail in chapters 8, 11 and 12 in particular. At this point it is enough to conclude that in assessing housing 'needs' it is not enough to count numbers of broadly defined groups, of people or properties. Analysis has to include attention to household preferences, their requirements for support and related services as well as appropriate housing size/structure and locational provisions, household incomes and other available resources.

It is also important in undertaking LHSA to remember that the boundary between need and demand is a fluid one. If over time pressure grows on a housing market, and costs of housing increase, households that might have been able to meet their own needs in the market can find themselves no longer able to do so. Conversely, over time income growth may lead to a situation where a number of households previously unable to afford housing now find they are able to express a housing demand. Underlying conditions will change in a housing system, and this will change the balance between demand and need over time. Moreover, time lags in housing system response can complicate this relationship. Sudden increases in demand can, before supply has time to adjust, lead to a relatively large increase in housing need, which over time will reduce because the market sector within the housing system will begin to react and respond. The link between the market and

sub market systems is as important as the internal structure of these systems, and understanding it is fundamental to understanding the functioning of the local housing system overall and over time. We return to this very important issue in chapter 13.

The boundary between need and demand can also be fluid because of changes over time in what policy makers decide is need. For example the new Scottish Housing Quality Standard discussed in chapter 7 can be thought of as specifying a higher definition of acceptable quality than was previously the case, and of itself may have increased the number of households unable to afford housing of an acceptable standard.

Balance and imbalance

Housing demand, need and supply across tenures are connected by economic and demographic drivers moderated by housing signals (house price change, turnover, vacancies, housing registers and so on) and adjustments to and based on those signals. LHSA is concerned with the interconnectedness of the housing system.

The notion of 'balance' is a central one to LHSA. Balance just means that the amount of housing of a given type, in a given location, at a given cost is roughly right for the number of households looking to access it. Imbalance means this is not the case – either too much is available, or more usually, too little. Sometimes, imbalance will correct itself. Short run increases in demand can be met after a lag by corresponding increases in supply. Often however, the imbalance may need a policy intervention. LHSA is about understanding the causes of imbalance in order to understand when a policy intervention is needed, and what form it might take.

Intuitively, the demand and supply for housing overall tell us about the crude overall degree of system 'balance' or 'imbalance'. Below this level, imbalance may affect specific tenures in whole or in part, particular geographic areas, or particular property types. In this regard, and particularly with respect to the nature and scale of imbalances over time, income and household preferences play a key role. Subsequent chapters in this Guide deal with what drives change in a housing system, what causes imbalance, and how to recognise and measure it. We summarise these in chapter 13.

Summary of outputs

While there are no 'outputs' as such associated with this chapter, it has introduced a number of concepts fundamental to the material contained in the following chapters of the Guide. By now, analysts should

- Understand why it is important to think about housing as a system, rather than just one or more of its component parts.

- Understand the different signals that can be used to define structure and functioning of the market and non-market sectors.

- Recognise the importance of identifying system response to change, and the ways this can be measured in housing markets.

- Understand the differences between the ideas of demand and need, and the relationship between them.

- Understand the idea of system balance and imbalance.

But a general understanding of these things only takes one so far. To analyse a local housing system, one must take it to pieces and examine it closely. It is to this task we turn in the following chapters.