Chapter One - The process of conducting the Strategic Housing Market Area Assessment.

1.1.1   This report constitutes the core output of the 2008 West of England Strategic Housing Market Assessment (SHMA) carried out by the West of England SHMA Partnership. This Assessment is required by *Planning Policy Statement 3 (PPS3) Housing* to inform planning within the region, responding to the Regional Spatial Strategy (RSS), providing an evidence base for a range of Local Development Documents, as well as informing the local housing strategies and investment plans of the local authorities and their partners, and enabling a subsequent response to these by Government and the new Homes and Communities Agency. The assessment has been carried out in accordance with the Department for Communities and Local Government (CLG) Guidance on SHMAs, referred to in this report as the Guidance[1]. This work builds on previous assessment studies carried out in the region and other related research. The geographic area that constitutes the SHMA is defined along local authority boundaries and consists of Bath and North East Somerset, Bristol, Mendip, North Somerset, South Gloucestershire and West Wiltshire. West Wiltshire became part of the new Wiltshire Unitary Authority on 1st April 2009 and after that date no longer exists as a separate local authority but the housing market will not be affected by these changes.

1.1.2   A SHMA Partnership Board consisting of key stakeholders was established to oversee the delivery of the assessment. The SHMA Partnership Board met in October 2007, February and July 2008 and March 2009. In between meetings written updates were sent to the Partnership. The SHMA Partnership board includes representatives from:

-   The Home Builders Federation
-   Local RSL partners
-   Private Landlords
-   Business West
-   South West Regional Assembly
-   South West Regional Development Agency
-   English Partnerships
-   Housing Corporation
-   Government Office for the South West

1.1.3   The role of the SHMA Partnership Board was agreed in October 2007. Key tasks include:

-   having oversight of the SHMA study
-   signing off the project brief for the study, including the contractors brief
-   supporting and contributing to the analysis and interpretation of housing market intelligence

---

[1] Strategic Housing Market Assessments – Practice Guidance Version 2-Department for Communities and Local Government August 2007.

- receiving interim and draft final reports and presentations
- signing off the final study and further considering the implications of the assessment and any follow-up actions which may be required.

1.1.4 In addition, the SHMA Partnership Board:

- appointed Heriot-Watt University to undertake the SHMA assessment
- agreed key variables within the modelling
- oversaw events involving a wider range of stakeholders and agreed responses to issues raised by them (see Appendices).

1.1.5 The SHMA Partnership Board has been supported by a technical Project Team consisting of housing and planning staff from the six constituent local authorities. The team was co-ordinated by an appointed project manager, Wendy Murphy.

1.1.6 An event for a wider range of stakeholders was held early on in the process, February 2008, so that stakeholders could understand the process and methodology. The event was attended by over 70 people representing a wide range of interests within the housing sector, from developers and home builders to land agents and property consultants, voluntary sector organisations to private landlords. In addition a second stakeholder event was held in March 2009 to consider a draft Executive Report on the study to ensure the widest possible feedback before the final report was published. Feedback from both stakeholder events is included as an appendix to this report.

1.2 **Process of carrying out the SHMA**

1.2.1   In line with the emphasis on p.16/17 of the Guidance, the project has used secondary data where appropriate and feasible. A wide range of data sources has been drawn upon in order to fully comply with the guidance. Some additional research has also been carried out, such as the survey of lettings agents as suggested by the Guidance.

1.2.2 The approach rests on the use of certain models which serve both to organise and bring together the data and also to enable forward forecasts and projections to be made. The use of such models is recognised in the Guidance. The models used in this SHMA are a combination of refinements of models which have been widely used before in official national and local studies, and subject to peer-reviewed academic publication; and some newer and more innovative elements which take the forecasting of market changes down to a more detailed level. Further details are given below.

1.2.3 The study and work programme leading up to this report, including the drafting of this report, has been a collaborative exercise. While Heriot-Watt University consultants have played a leading role in the central modelling and analytical work, the local authorities, supported by the West of England Partnership, have been heavily involved in compiling a substantial amount of data from a range of local sources.
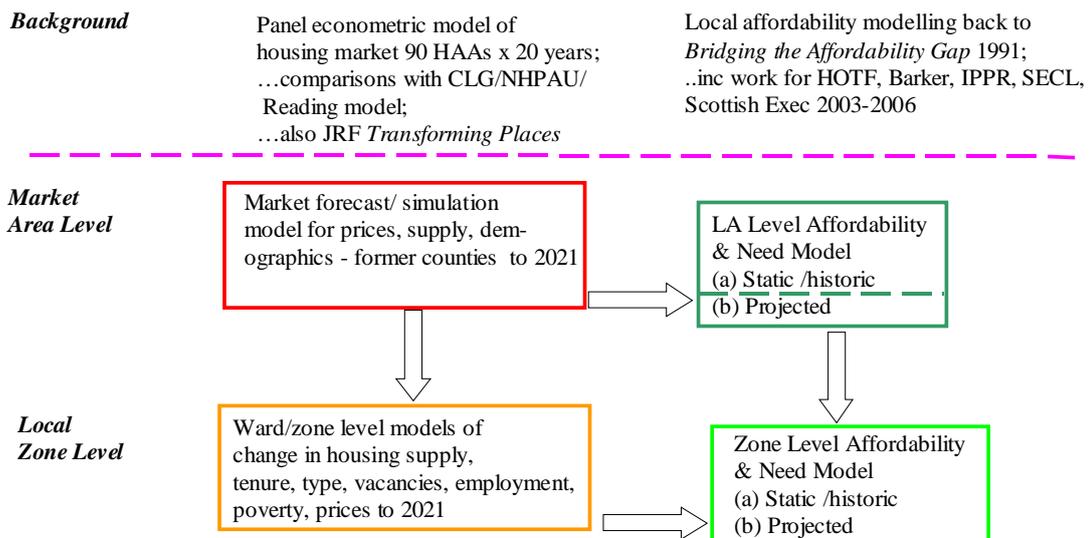
1.3 Overview of the modelling work

1.3.1 This SHMA is in many ways directly comparable with those which are being produced in different areas of the country, providing similar kinds of analysis using similar kinds of data, and following the same guidance. However, in one sense at least this study is unique. It is the first time a particular suite of models have been used in an integrated way to forecast housing market outcomes at both the Housing Market Area (HMA) and the sub-local authority levels and to trace through the detailed implications of these forecasts, and of strategic policy variants, for housing affordability and housing needs.

1.3.2 This is an important area for innovation in the context of SHMAs. The SHMA framework seeks an analysis which goes beyond a traditional descriptive account of housing needs and a forward projection based on demographics and simple extrapolation. There is an expectation that the assessment will be informed by an understanding and an analysis of the operation of the housing market, the influence of key drivers such as the economy, and the implications of different planning decisions. The modelling underpinning this study is directly intended to rise to that challenge, and to provide a set of forecasts which are rigorous, evidence-based, and tailored to the West of England HMA context.

The models are summarised in Figure 1.1

Figure 1.1

Overall Model Structure

Background	Panel econometric model of housing market 90 HAAs x 20 years; …comparisons with CLG/NHPAU/ Reading model; …also JRF *Transforming Places*	Local affordability modelling back to *Bridging the Affordability Gap* 1991; ..inc work for HOTF, Barker, IPPR, SECL, Scottish Exec 2003-2006
Market Area Level	Market forecast/ simulation model for prices, supply, dem-ographics - former counties to 2021	LA Level Affordability & Need Model (a) Static /historic (b) Projected
Local Zone Level	Ward/zone level models of change in housing supply, tenure, type, vacancies, employment, poverty, prices to 2021	Zone Level Affordability & Need Model (a) Static /historic (b) Projected

1.3.3 The model in the top left quadrant has been developed on the basis of econometric research into migration and into the operation of the housing market and housing supply in response to different planning policies (by Bramley 2002, and Bramley & Leishman 2005). Based on a 20-year 'panel' of data, it predicts prices, output, migration, vacancies, household formation and relets for 90 areas across England – these areas include the former Avon, former Wiltshire (which includes Swindon) and Somerset as units.

1.3.4 The model on the top-right hand quadrant is the well-established Bramley affordability model (Bramley & Karley 2005), as used recently in studies for Barker (2004), Housing Corporation (2003), Council of Mortgage Lenders (2004), Institute for Public Policy Research IPPR (2005) South East County Leaders (2006), and Scottish Government (2006). This estimates local income patterns and housing affordability for different types of household and derives estimates of housing need from this by allowing for demography and supply. The model works at local authority (district/unitary) level and can provide both a snapshot picture for the recent past (e.g. 2006) and a forward projection for future years. Its main value for this study is as a check on the operation of the lower level model, and to place local findings in a consistent national context (e.g. how much of the national need does WoE HMA represent?).

1.3.5 The model in the bottom-right quadrant is a version of this model which is in principle the same but which works at a lower geographical scale, in this case the WoE HMA Zones. This makes more use of local, administrative or survey data, whereas the model above is designed to run entirely off universally-available secondary data sources. It also produces more detailed outputs for example in relation to size and type requirements. A previous WoE study covering the four Unitary Authorities of the former Avon area involved a very similar model of this type, and it has also been used in a number of other local studies.

1.3.6 The model in the bottom-left quadrant is designed to forecast how housing market numbers and characteristics/outcomes will change over a medium term planning period at a small area scale (wards or groups of wards). It is designed to be partially driven by, and controlled for consistency with, the higher level market area model. It builds on a significant 2007 research study for the Joseph Rowntree Foundation[2]. Compared with the other models used in this study, it is more 'experimental' in character but its results so far appear to be reasonable and is based on the evidence of changes observed over the last 10-20 years across all wards in England. The main value of this model is to give a plausible picture of how area socio-demographic and market conditions are likely to respond to different levels and mixes of supply intervention, but it can also reflect more localised economic or infrastructural changes.

---

[2] Transforming Places: Housing Investment and Neighbourhood Market Change: Bramley, Leishman et al- Joseph Rowntree Foundation (JRF) May 2007.

1.3.7 The combination of top and bottom-left quadrant models were used for the first time in a 2008 study for the Housing Market Renewal organisation Bridging Newcastle Gateshead[3], but they have been refined further in this study for the WoE partnership. The use of all four models linked together is unique to this study.

1.3.8 The first model makes forecasts on an annual basis, starting in fact from 2000 and running forward to 2021/26. The other models make forecasts at five year intervals, 2006, 2011, 2016, 2021, 2026. Clearly, the further into the future, the less certain one can be about outcomes. On the other hand, the housing market can be volatile and forecasting the precise movement of house prices can be hazardous even over short periods of time, as is illustrated by current events. It can be argued that we can be more confident about conditions in the medium term than we can be in the very short term. For planning purposes, periods of 15-20 years ahead are useful to think about. For affordable housing provision, a time horizon of 5-15 years is probably more important.

1.4 Higher Level Market Forecast

1.4.1 The higher level market forecast is provided through the use of the model, based on an econometric model fitted to panel data for 90 areas covering England over the period 1983-2004. This econometric model estimates (calibrates) a set of simultaneous equations which predict for each year the values of the following key market variables:

- house price;
- new private completions;
- in- and out-migration;
- private sector vacancies;
- net social rented relets; and
- intermediate market resales

1.4.2 These equations take account of contemporaneous or lagged values of these variables in each area and also in adjacent areas, while also taking account of a large number of other 'exogenous' variables measuring economic, demographic, housing supply and environmental conditions in each area and year.

1.4.3 Variables used to predict these outcomes include about ten factors which vary over time and space – e.g. employment growth, job/worker ratios, unemployment, household income, new and existing social renting, social sector relets, total population - and another twenty or so variables which are measured for each area as single cross-sectional values – e.g. environmental factors like air quality, climate and derelict land, urban form factors like density, housing quality and condition

---

[3] Bridging Newcastle Gateshead – Modelling Future Housing Markets- Final Report-Bramley and Watkins Heriot-Watt University January 2008.

indicators, social composition measures, demographic characteristics. There are also time-varying macro-economic factors including interest rates and Gross Domestic Product (GDP) growth rates.

1.4.4   For forecasting, a simulation version of this model has been adapted, which recalculates values for the above variables and certain other key stocks such as households and dwellings, for each year of the forecasting period (in this case, 2000-2026), and for each area. West of England Housing Market Area (WoE HMA) represents the whole of one area in this model (the former Avon County) and part of two other areas (Somerset and Wiltshire). The simulation model has been refined in various ways to improve the realism and consistency of its forecasts over longer periods and to provide additional useful outputs. In particular, feedback mechanisms are included to ensure that the total numbers of households and dwellings do not get too far out of line. New household formation is forecast to respond to house price: income relationships, based on separate research using the British Household Panel Survey. Internal migration is controlled partially at regional level and partially at national level. Migration is grossed up to allow for international flows of all age groups, using recent Office of National Statistics (ONS) local estimates as a base. It should be noted that a consequence of this approach to demographics within the model means that the model generates predictions of household numbers which may deviate from official household projections.

1.4.5   The most important inputs to forecasts using this model are economic assumptions about growth in income and jobs, and associated unemployment rates, on the demand side and assumptions about supply. For the baseline we base income and job growth on past trends by region and urban-rural type of area. Initial period GDP and income growth reflects independent forecasts published by the Treasury, but with adjustments (see below). The assumed longer term trend growth rate for the region in the baseline is around 2.8%, with national growth around 2.4%. This is a cautious assumption, below the level of growth aspired to by the South West Regional Development agency (SWRDA) and some of the Regional Planning documents and forecasts. However, we test high and low growth variants around this level.

1.4.6   The model takes inputs in terms of flows of new planning permissions for private housing, and this influences output indirectly through the completions equation, which takes account of flow and stock of planning permissions, price levels and changes and other economic and environmental variables. Although new social housing can be more directly input, it is not possible to specify an exact supply number, but the forecast uses a general output trajectory consistent with certain planning assumptions; for the baseline forecast this relates to the RSS Panel Report for the South West.

1.4.7   In conducting this forecast at the present time (2008) it has been necessary to take some account of the currently disturbed state of the

financial and mortgage markets, generally known as the 'Credit Crunch', which are clearly having more pronounced effects on the housing market and the economy than was originally expected. While there is inevitably great uncertainty about this, we assume now that this disturbance will have significant effects particularly in 2008 and running on into 2009 and 2010, but that after that the markets will return to a more normal pattern. Key assumptions changed for the period 2007-2010 to reflect this disturbance include higher (effective) mortgage interest rates, higher unemployment, lower GDP and income growth, and a big drop in Buy to Let (BTL) mortgage lending[4]. These generate a sharp drop in house prices in 2008-09, about 25% down from 2007 in real terms, and also a drop in completions, followed by a rather subdued period in terms of prices for several more years. Prices recover to 2006 levels in real terms by about 2014. However, for most of the analysis discussed in this section we are focusing on the medium term time horizons of 5-20 years ahead.

1.5   Local Zone Level Forecasts

1.5.1   At the more localised geographic scale 31 Zones were defined by the local authorities as local housing market areas. The map of zones and more information on how the zones were chosen is included in Chapter 2 of this report. A different approach is adopted to forecasting at zone level, although this is explicitly linked to the market area level forecasts. At this scale there is evidence that markets evolve as the result of households making choices about where to live and where and when to move on the basis of the housing, social and environmental opportunities which different neighbourhoods present. These opportunities may be changed by the effects of planning and other interventions, particularly through the provision of new housing or redevelopment. They may also be influenced by changes in transport infrastructure or environmental programmes, although there is limited data available on these, and by the local availability of jobs.

1.5.2   The approach taken here is to use an extensive database constructed at ward level for the whole of England, and the previous analysis of this in a JRF study (see 1.3.6 above). This provides a base profile of wards in the WoE area and a picture of changes in these areas in the preceding period. For a number of market variables forecasts of changes can be made using statistical models fitted to these data for past changes, using data for the whole of England, which show how changes in one variable are influenced by changes in a number of other variables. Variables predicted in this way include new private building, employment rates, higher level occupations, private renting, poverty, vacancy rates and house prices. The key inputs fed into this model are the land release data compiled by planners within the housing market partnership for this study, which indicate where and

---

4   The BTL factor in reality is acting as a proxy for the particularly relaxed lending regime which developed in the early 2000s, and which has now clearly gone into reverse following the Credit Crunch.

over what time period new supply is likely to come forward. For other variables, changes are modelled in a more mechanistic fashion, as with the adjustment of housing stocks, demolitions, house types and household numbers. Forecasts are made at five year intervals and these are both influenced by and controlled to the relevant values derived from the higher level forecast. This model works at ward level but the results are aggregated up to Zones. Full technical details of the model are available in the technical appendix.

1.5.3   The results of this exercise are of interest in their own right, providing a picture of how different areas within WoE are likely to change. However, they also provide an essential basis for the running of the affordability and need model at Zonal level, estimating local income and affordability patterns and providing the demographic and supply inputs needed.

1.6   Definitions

1.6.1   Throughout this assessment definitions used are those from PPS 3 i.e.

"Affordable housing includes social rented and intermediate housing, provided to specified eligible households whose needs are not met by the market."

Social rented housing is "rented housing owned and managed by local authorities and registered social landlords, for which guideline target rents are determined through the national rent regime"

Intermediate affordable housing is "housing at prices and rents above those of social rent but below market price or rents.... these can include shared equity products (e.g. Homebuy) other low cost homes for sale and intermediate rent"

1.7   Summary

1.7.1   This chapter describes the process by which this Strategic Housing Market Assessment has been carried out and the key role of the SHMA Partnership. It describes the complex modelling that has been carried out drawing on a very wide range of secondary data, supplemented with locally provided data where necessary.