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Affordable Housing Need in Scotland

Final Report – September 2015

Ryan Powell, Richard Dunning, Ed Ferrari, Kim McKee



Foreword

There's a lot to do to make the Scottish housing market meet the needs and expectations of people in Scotland.

There's the challenge of an ageing population and making sure the homes we have are right for older citizens. There's the need to protect fragile rural communities by ensuring there's a mix of housing provision. Making our homes more energy efficient; improving private renting; supporting better neighbourhoods – all important priorities.

But underlying that mix is a stark fact. We need more homes. Affordable homes at that. In which people can have the security of knowing they have somewhere to call home, which is within their means.

This report shows just how much current policy is lagging behind that need. Scotland needs at least 12,000 affordable homes a year for the next five years. Current programmes, at best, provide only half of that. And it is a longstanding failing as well, spanning governments of different hue.

Scotland needs 12,000 affordable homes because the market alone cannot do the job. Those homes can vary as to whose needs they meet. While there is a compelling case for the bedrock of that programme to be socially rented homes – council or housing association homes with below-market rents and with

secure tenancies – we believe that there is also room for a range of solutions, including low cost home ownership or newer products like mid-market rent homes.

So in scaling up to 12,000 affordable homes, there is plenty of scope for continuing innovation, especially as different areas match the specific needs of their localities to the range of options available. However, that must be in the context of a concerted effort to increase affordable housing supply through to 2020. That should be the litmus test of housing policy for the next 5 years.

We recognise that a programme of this scale is a challenge to national government, to councils, to housing associations, to builders. But there's a prize too. There's a jobs and skills boost from upping our game on housing supply; the health gains from better homes; the critical role of secure and affordable housing in reducing inequality and child poverty.

All of these gains are widely-recognised of course, not least by government ministers. But it has been a long time since the rhetoric on the importance of housing has been matched by programmes of sufficient scale.

We are at that point now. The evidence is clear. The benefits are clear. The need is clear.

Let's get on with it!



Graeme Brown
Shelter Scotland



Annie Mauger
CIH Scotland



Mary Taylor
SFHA

Contents

Acknowledgements	i
List of abbreviations	ii
Summary	iii
1. Introduction	1
2. The research approach	2
3. Assessing affordable housing need at the local level	4
4. Demographic trends and context	6
5. A pan-Scotland assessment of affordable housing need	20
6. Policy and funding implications	40
7. References	49
Annex	51

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List of abbreviations

ARC	Annual Return on the Charter	LLP	Limited Liability Partnerships
AHSP	Affordable Housing Supply Programme	MMR	Mid-market Rent
ASHE	Annual Survey of Hours and Earnings	NHT	National Housing Trust
CCHPR	Cambridge Centre for Housing and Planning Research	NRS	National Records of Scotland (formerly GROS)
CHMA	Centre for Housing Market Analysis	ONS	Office for National Statistics
CIH	Chartered Institute of Housing	PRS	Private Rented Sector
CSR	Comprehensive Spending Review	PSR	Partnership Support for Regeneration
ECO	Energy Company Obligation (Scheme)	RSL	Registered Social Landlord
GROS	General Register Office for Scotland	RTB	Right to Buy
GWSF	Glasgow and West of Scotland Forum for Housing Associations	SAR	Shared Accommodation Rate
HaTAP	Homelessness and Temporary Accommodation Pressure	SCORE	Scottish Continuous Recording System
HMO	Housing of Multiple Occupation	SDPA	Strategic Development and Planning Authority
HNDA	Housing Need and Demand Assessment	SFHA	Scottish Federation of Housing Associations
IIF	Innovation and Investment Fund	SHCS	Scottish House Conditions Survey
LAD	Local Authority District	SHIP	Strategic Housing Investment Plan
LBTT	Land and Building Transactions Tax	SHQS	Scottish Housing Quality Standard
LCHO	Low-cost Homeownership	SNP	Scottish National Party
LHA	Local Housing Allowance	SRS	Social Rented Sector
LHS	Local Housing Strategy	UC	Universal Credit

Summary

Introduction

- This report presents the findings from research conducted in 2015 which sought to estimate the need for affordable housing across Scotland as a whole. The research was commissioned by Shelter Scotland, the Chartered Institute of Housing Scotland and the Scottish Federation of Housing Associations (SFHA). The study updates a previous, similar exercise conducted almost a decade ago for the Scottish Government (Bramley *et al.*, 2006).
- The purpose of this research is to: arrive at an estimate which can inform of the scale of affordable housing need *nationally*; and assess the extent to which Scottish Government housing spending plans can address this need. The focus is therefore on a *pan-Scotland* estimate of affordable housing need which can inform housing policy and debate across the sector.
- This national focus necessitates the development of an alternative, consistent approach which builds on local evidence and the model developed by the Centre for Housing Market Analysis (CHMA) at the Scottish Government. In this sense the findings presented complement the local evidence base derived through the local Housing Need and Demand Assessment (HNDA) process, rather than challenge it.

The research approach

- The research was commissioned in December 2014 with a primary focus on: the additional affordable housing required for households whose needs are not met by the private housing market. The overall aim of the research is to provide Shelter Scotland and partners – CIH Scotland and SFHA – with robust evidence on total and affordable housing need in Scotland.
- The research was divided into five overlapping stages: policy review; a review of HNDAs; key stakeholder interviews; a pan-Scotland assessment of housing demand and need; and analysis and reporting.
- The pan-Scotland assessment involved the development of a stock-flow model of the type commonly used in housing needs assessment in the UK. The model builds on the CHMA Tool produced by the Scottish Government and is presented in section five.
- Evidence from stakeholder interviews is drawn upon in sensitising the research to a changing local context (e.g. welfare reform considerations) and in highlighting the diversity across Scotland.

Assessing affordable housing need at the local level

- Local authorities are required by law under the Housing (Scotland) Act 2001 to produce a Local Housing Strategy (LHS), underpinned by an assessment of housing need and demand: HNDAs provide the evidence base for local strategies.
- Over the last three years the CHMA has developed a HNDA modelling tool to assist local authorities in the analysis and development of their HNDAs. The tool serves to separate the evidence base on HNDAs from policy; streamline and bring greater clarity to the HNDA process; and provide a clearer method and approach.
- Geography is obviously critical to any assessment of housing need. Yet in practice HNDAs can use a range of different geographies which can have implications for sourcing suitable data, and arriving at an assessment of need. Many stakeholders reported that housing need tends to be greater the more you disaggregate at the local level.
- The HNDAs of many local authorities in Scotland pre-date the development of the CHMA Tool, as well as recently updated guidance on conducting HNDAs. As a result, there is inevitable variation in the methodologies and timescales of HNDAs.

Demographic trends and context

- The Scottish housing market has undergone significant change since the last assessment of affordable housing need at the national level (Bramley *et al.*, 2006).
- In addition, wide-ranging and on-going welfare reforms since 2011 have impacted on the nature of housing need and demand for many low-income households in Scotland (e.g. the bedroom tax has resulted in increased demand for one-bedroom properties).
- Household projections show that the number of households in Scotland is growing at a steady rate, as is the Scottish population, underscoring the need for an increase in housing delivery over the longer-term.
- House prices and market rents show an upward trend, the latter have increased steadily and consistently in recent years, which is perhaps unsurprising given that the social rented sector has contracted and many households are struggling to access homeownership.
- Overall housebuilding levels are well below their peak at 2007 and social housing completions have fallen by 44 per cent from 2010 to 2014 – to just 3,217 last year. At the same time, social rented

stocks have been depleted through demolitions and the Right to Buy.

- Though the number of households assessed as homeless has fallen since a peak in 2010, homelessness is still a pressing issue in many local authorities.
- Taken together, demographic and housing market trends in Scotland point to significant housing pressures, with the potential for a worsening situation in terms of access to affordable housing in the short- to medium-term.

A pan-Scotland assessment of affordable housing need

- A statistical model of affordable housing need has been developed. It attempts to balance the need to create a model that is robust and evidence-led at the level of the country as a whole, with the need to be sensitive to an array of potential local issues that will inflect the overall assessment of need.
- Our basic principle is that a national assessment of housing need cannot simply be the sum of local needs assessments but must proceed using a set of common assumptions.
- A main version of the model is detailed in section five – this is termed the ‘Core Model’ as it is built around ‘core’ assumptions built into the CHMA Tool. A set of four scenarios are then presented which provide bottom- and top-end assessments of affordable housing need by varying assumptions related to household formation and affordability within the overall calculation of needs expected to arise in the future.
- The assessment of affordable housing need employs a stock-flow model of the type commonly used in housing needs assessment in the UK. Put simply, the model architecture consists of:



- 2012 based household projections that have been built into the CHMA Tool are used within the model, which results in an average increase in the number of households in Scotland of 18,704 per annum. This represents the de facto total housing

requirement for Scotland over the next five years, though this figure will be significantly higher once losses to stock through demolitions and regeneration are taken into account.

- The core model represents a ‘mid-point’ scenario in terms of future demographic and house price changes, and is considered the most likely to occur. **The core model estimates an affordable housing requirement in Scotland of 12,014 dwellings per annum over five years.** This represents 64.2 per cent of the expected net increase in households in Scotland (18,704) over the next five years.
- The estimate of overall affordable housing need varies from 10,435 to 14,678 per annum. It is clear from the presentation of the scenarios in section five that the models are more sensitive to assumptions about price inflation than they are to assumptions about migration.
- Housing needs are not distributed equally across Scotland, although we note that it is unreasonable to expect needs arising in one part of the country to be met in another. A classification of local authorities has been developed driven by measures of migration self-containment and recent house price inflation, which results in four local authority types (see sections four and five).
- The level of affordable housing need expressed as a proportion of expected net household formation is highest in aggregate in Type 3 areas (95 per cent) and lowest in aggregate in Type 2 areas (11 per cent). Type 3 areas are those where recent price inflation has been strongest and where self-containment has been lowest (i.e. areas that have attracted a higher number of in-migrants). This combination of factors has arguably led to a worsening of affordability in those areas. In contrast, Type 2 areas have experienced the lowest levels of price inflation and are relatively self-contained (i.e. the market tends to meet more localised demand).

Policy and funding implications

- As a proportion of *overall* housing need, the need for *affordable* housing is much higher than previously estimated. As a result, in discussions about overall housing supply, far more attention needs to be focused on *what* is provided, not just *how much*. This is an important consideration nationally and locally in terms of specific discussions on land-use planning, and affordable housing policies within the planning system.
- Social housing remains more prevalent in Scotland than elsewhere in the UK, and the supply of new affordable housing remains a stated priority for the Scottish Government. It has expressed a commitment to deliver at least 30,000 affordable homes, of which at least two-thirds will be for social rent, including 5,000 council houses, during the lifetime of the current Parliament (by 2016). This equates to around

- 6,000 affordable homes per annum over five years: just half of the estimated affordable housing requirement per year evidenced here.
- The Scottish housing system has experienced significant change and pressure over the last decade. Households are finding it difficult to realise their long-term aspirations towards homeownership and social lettings have become more concentrated amongst the poorest and most vulnerable sections of society. The deregulated private rented sector has grown markedly and is emerging as the default destination for many vulnerable households unable to access the social rented sector.
 - Ongoing welfare reform creates risks for the business plans of social landlords already operating in a difficult economic climate. Social landlords have expressed particular concerns over the implementation of Universal Credit for instance.
 - Other changes to Housing Benefit pose a real threat to the Scottish Government's aim of increasing affordable choices for households. Ultimately, reductions in Local Housing Allowance entitlements serve to increase the gap between Housing Benefit payments and market rents thereby adding to affordability pressures for those unable to access social housing.
 - Demographic and housing market trends point to steady household growth, rising house prices and rents, and increased homelessness. On the other hand, the social rented sector has contracted and new affordable supply is at historically low levels.
 - A well-functioning housing system which meets the needs of all households is pivotal to addressing national policy outcomes. Yet current Affordable Housing Supply Programme targets fall well short of the levels of affordable housing required to address the need evidenced here.
 - At current subsidy levels of £58k¹ per home (for an urban registered social landlord property for example) an affordable housing programme to deliver 12,000 homes per year – which would address both the backlog of housing need and newly arising need over a five year period – would cost the Scottish Government around £700m per annum (£696m). Clearly, addressing housing need in Scotland would require additional public investment over and beyond what is currently committed.
 - Over £1 billion has been allocated from the Scottish Government housing supply budget, to local authority areas across Scotland, for the three years to March 2016. This represents roughly £333m per year; and a shortfall of over £360m if housing need is to realistically be met. However, a return to previous investment levels would significantly reduce that shortfall. Whilst the affordable housing landscape is more positive in Scotland than elsewhere in the UK, ultimately, delivering such a programme is not cost-free.
 - This is a critical juncture for Scottish housing policy. In England, emphasis has shifted to the private sector and the encouragement of higher rent intermediate markets. While such initiatives can prove beneficial to some households, this ultimately shifts the focus from low-income households – those in the most acute housing *need*.
 - The major policy lever in affordable housing delivery remains the level of housing subsidy. If housing need is to be met, and future housing crises are to be averted, then the Scottish Government must build on the national legacy of prioritising affordable housing investment in the forthcoming Comprehensive Spending Review.

1. £58k is the average for rented programmes. To the extent that the programme is a varied one, drawing in low-cost home ownership and mid-market rent products, then that average will be lower. However, against that is the likelihood that low rates of subsidy would act as a constraint on expanding housing supply, so higher rates are likely to be needed to deliver an overall programme of this scale.

1. Introduction

This report presents the findings from research conducted in 2015 which sought to estimate the need for affordable housing across Scotland as a whole.

The research was commissioned by Shelter Scotland, the Chartered Institute of Housing Scotland and the Scottish Federation of Housing Associations. While all Scottish local authorities are required to conduct their own local housing need and demand assessments (HNDAs), there is currently no up-to-date and consistent estimate of affordable housing need at the national scale.

The study updates a previous, similar exercise conducted almost a decade ago for the Scottish Government (Bramley *et al.*, 2006). The evidence base provided by Bramley *et al.* was particularly useful to the Scottish housing sector in terms of an independent and consistent measure of affordable housing need across the country as a whole. The Scottish housing market has obviously undergone significant change since 2006, and there have also been key changes in the approach to housing need and demand assessments (HNDAs) since that research was undertaken (see section three). In addition, wide-ranging and on-going welfare reforms since 2011 have impacted on the nature of housing need and demand for some affected households. The findings presented here take account of these developments in providing an up-to-date and consistent evidence base on affordable housing need in Scotland.

The focus is on a *pan-Scotland* estimate of affordable housing need which can inform housing policy and debate across the sector. In this sense the findings presented complement the local evidence base derived through the HNDA process, rather than challenge it. Arriving at a national estimate of affordable housing need is more complex than simply summing together the housing need requirements presented in local HNDA documents (see section five). The Scottish Government Centre for Housing Market Analysis (CHMA) has recently developed a tool for the modelling of affordable housing need at the local level. However, many local HNDAs pre-date this model, as well as recent updated guidance on conducting HNDAs (Scottish Government, 2014c). As a result, there is an inevitable degree of variation in the methodologies and timescales of HNDAs.

A pan-Scotland estimate of affordable housing need therefore necessitates the development of an alternative, consistent approach which builds on local evidence and the model developed by the CHMA. However, it in no way undermines or replaces the evidence base provided by the local HNDA exercise. Those assessments are

able to capture local context and policy considerations and therefore provide a rich understanding of the picture locally, which can feed into Local Housing Strategies (LHSs) and Strategic Housing Investment Plans (SHIPs). In contrast, the purpose of this research is to: arrive at an estimate which can inform of the scale of affordable housing need *nationally*; and assess the extent to which Scottish Government housing spending plans can address this need. The estimate also provides an indicator from which progress towards the delivery of affordable housing can be monitored and assessed.

It is important to distinguish between *social* and *affordable* housing at the outset. This is not as straightforward as it may first seem as ‘what makes a home ‘affordable’ has become a serious point of contention’.² Despite the contested nature of the term there is the need for a distinction which captures the difference in terms of policy and tenure. For the purposes of this report a tenure based definition is used rather than a household one, as what is affordable to one household may not be affordable to another in a similar position in the housing market. In what follows:

- *Social housing* refers to secure, relatively low rent housing, prioritised by need and provided by local authorities and Registered Social Landlords (RSLs).
- *Affordable housing* is used to denote a much broader category of housing tenures that includes social housing, but also a plethora of low-cost homeownership and mid-market rent schemes.

These definitions should be borne in mind throughout the rest of the report.

The remainder of the report is divided into five sections:

- **Section two** details the aims and objectives and sets out the research approach adopted.
- **Section three** outlines the policy context for assessing affordable housing need at the local level with a focus on the HNDA process.
- **Section four** provides an overview of demographic trends and context drawing upon key socio-economic indicators that feed into the pan-Scotland assessment.
- **Section five** presents the main findings from the modelling exercise, and provides estimates for affordable housing need in Scotland under a range of different scenarios and by local authority type.
- The **final section** discusses the key policy and funding implications of the pan-Scotland assessment presented in section five with reference to the broader policy and fiscal landscape.

2. <http://blog.shelter.org.uk/2015/08/what-is-affordable-housing/> - see the Shelter blog for a discussion of the various points of contention in defining affordable housing.

2. The research approach

The research was commissioned in December 2014 with a primary focus on: *the additional affordable housing required for households whose needs are not met by the private housing market.*

The overall aim of the research is to *provide Shelter Scotland, CIH Scotland and the Scottish Federation of Housing Associations (SFHA) with robust evidence on total and affordable housing need in Scotland* from which they can:

1. Advise the Scottish Government and Parliament on the scale and nature of current and future housing need in Scotland.
2. Assess the extent to which housing spending decisions and plans by the Scottish Government will address total affordable housing need and specific aspects of affordable need.

The objectives of the research are to:

- Provide a review of housing needs and demand assessments (HNDAs) published by local authorities in the latest HNDA refresh exercise, drawing out common themes and what they tell us about the scale and nature of housing need across Scotland as a whole.
- Develop and provide a pan-Scotland assessment of total and affordable housing need based on the consistent use of data and methods, and based on the researcher's own insights as to best practice.
- Draw out policy and funding implications for housing supply for the immediate spending review period (2016-17 to 2018-19) and, more generally, for the 10 year period through to 2026.

The research was divided into five overlapping stages:

- **Stage 1: Policy Review** – This sought to establish a comprehensive picture of the policy context pertaining to the delivery of affordable housing in Scotland and also focused on some key changes since the financial crisis of 2007/08. The findings from this element are drawn upon throughout the report where relevant but specific policies are outlined in section six.
- **Stage 2: Review of HNDAs** – Stage two first involved the collation of the latest HNDA documents for all Scottish local authorities, or Strategic Development and Planning Authorities (SDPAs). There are four SDPAs in Scotland which represent an amalgamation of authorities (i.e. Aberdeen and Aberdeenshire; Clydeplan; Sesplan; and Tayplan). A pro forma was then developed through which each

HNDA could be consistently reviewed and the key information and data recorded. This exercise then formed the basis of an assessment of how far the 17 Scottish HNDAs diverged in their approach and methodology. The approach to the reviews drew upon assessment criteria developed by Ferrari *et al.* (2011) and was driven by the following key considerations:

- *technical*: robustness of data sources; evidence of statistical significance testing; adherence to guidance, etc.
 - *conceptual*: definitional clarity; selection of scenarios; basis for household forecasts; analysis of underlying market geography, etc.
 - *processual*: partnership working; stakeholder engagement and buy-in; robustness of policy implications; use of resident views and other sources of qualitative data, etc.
- **Stage 3: Key stakeholder interviews** – local authority stakeholders were consulted through a series of interviews conducted with housing officers. In total, ten interviews were conducted from April to June 2015. Interviews focused on the local HNDA process and perspectives on housing market change since the latest HNDA refresh exercise was conducted. Local insight was invaluable in sensitising the research to a changing local context (e.g. welfare reform considerations) and in highlighting the diversity across Scotland, but also within many local authorities. Stakeholder perspectives also informed of the importance of local policy considerations in terms of the delivery of affordable housing. Evidence from stakeholder interviews is drawn upon throughout the rest of this report but particularly in sections three, four and five where local knowledge sheds light on the complexities and nuances of the HNDA process. For example, in revealing specific issues and considerations that may be masked by local authority level data, or in aiding understanding of the factors driving recent housing market change (e.g. developments in the oil and gas industry in the Shetland Isles). In addition to telephone interviews, the views of local authority housing officers were also sought at two meetings of the Scottish Housing Best Value Network: a national housing forum at which the 32 Scottish local authorities are represented. One held in Edinburgh in March 2015, and another in Glasgow in May 2015.
 - **Stage 4: Pan-Scotland assessment of housing demand and need** – this involved the development of a stock-flow model of the type commonly used in housing needs assessment in the UK. The model builds on the CHMA Tool produced by the Scottish Government but also deviates from that model, which is designed for LAD/SDPA analyses, in a

number of respects. Details of the model and a full explanation of the methodological assumptions underpinning it are presented in section 5.

- **Stage 5: Analysis and Reporting** – findings from stage four were then ‘sense-tested’ against a

number of different scenarios based on varying levels of migration/household formation and affordability into the future. More optimistic and pessimistic estimates of affordable housing need are therefore presented alongside the core model.

3. Assessing affordable housing need at the local level

3.1. Introduction

This section sets out the policy framework for assessing affordable housing need in Scotland. It focuses in particular on the Housing Need and Demand Assessment (HNDA) process and how this evidence relates to Local Housing Strategies (LHSs).

3.2. Local Housing Strategies and HNDAs

Local authorities are required by law under the Housing (Scotland) Act 2001 to produce a LHS, underpinned by an assessment of housing need and demand. The LHS is a pivotal document, and reflects local authorities' strategic housing role and statutory responsibilities. It is developed in partnership with other public, private and voluntary sector agencies and reflects priorities identified by the Community Planning Partnership in the Single Outcome Agreement, which is a 'shared plan for place' (Scottish Government 2014a, p.3). HNDAs provide the evidence base for local strategies. They arrive at estimates for the number of additional homes, including affordable and specialist housing, required to meet current and future need and demand (Scottish Government, 2014a, 2014c):

- **Current need:** driven by factors such as pressures on existing stock including overcrowding, homelessness, care and support needs etc.
- **Future need:** driven by future household formation projections. The amount of additional housing to be delivered is outlined in the Housing Supply Target (see section five for a detailed discussion of these distinctions).

HNDAs aim to ensure local plans and policy developments are based upon a common understanding of existing and future housing requirements for all sectors and tenures. Yet housing 'need' is itself a contested concept, commonly defined in subjective, as opposed to normative, terms and often conflated with the related but different concepts of 'aspiration' and 'demand'. In this report housing 'need' refers to households whose needs cannot be met by the commercial market, which covers a range of household

situations from homelessness to overcrowding to the need for adaptations (see sections four and five).

The HNDA process has recently undergone significant change. Over the last three years the Centre for Housing Market Analysis (CHMA) at the Scottish Government has developed a **HNDA modelling tool** to assist local authorities in the analysis and development of their HNDAs.³ This has been driven by a number of aims (Scottish Government, 2014c):

- to separate the evidence base on HNDAs from policy and political considerations (policy issues are considered in the translation of HNDA findings into LHSs)
- to bring greater clarity to how HNDAs inform housing and planning policy
- to streamline the HNDA process and reduce the time and cost of their production
- to provide a clearer method for estimating housing need and demand.

The CHMA seeks to work collaboratively with local authorities and there is a pragmatic recognition on all sides that estimating housing need is not an exact science: there is no magical, 'right' number that can be arrived at given the dynamism of local housing markets. Rather, the CHMA check whether HNDAs have followed the guidance and that the methods and assumptions employed are sound and reasonable. HNDAs that meet these standards are then given 'robust and credible' status by the Scottish Government, which signals the green light for their use as an evidence base for the development of LHSs. This separation between evidence and policy, along with the streamlined process, was considered a positive by the vast majority of interview respondents. As one interviewee noted:

“ *The next HNDA will pay a lot more attention to the CHMA tool. When we did the previous HNDA we had to pay consultants to do all the number-crunching for us, but the tool enables us to plug in our own data now...It seems a lot simpler in terms of what's been suggested, but having said that they still seem to be very weighty documents!* ” (Local authority officer)

However, it was also noted by several local authority stakeholders that there would often be a difference between the affordable requirement in HNDAs, and the delivery targets included in LHSs. As one interview respondent put it:

3. <http://www.gov.scot/Topics/Built-Environment/Housing/supply-demand/chma/hnda>

“ *There is quite significant variation in [this local authority] between the figures in the HNDA and the affordable housing targets in the LHS...the HNDA is evidence but the LHS reflects the policy and political reality* ” (Local authority officer)

This quote reflects the fact that delivery of affordable housing does not occur in a vacuum; it is dependent on local and national policy and political priorities, and is not simply a methodological exercise.

3.3. HNDAs and capturing the local context

Geography is obviously critical to any assessment of housing need. A grasp of the micro-geographies of housing is central to understanding the constraints on household decision-making. Yet in practice HNDAs can use a range of different geographies, from the Housing Market Area to the local authority or Strategic Development and Planning Authority (SDPA) level. These differences in spatial scale can in turn have implications for sourcing suitable data, and arriving at an assessment of need. For example, several stakeholders interviewed as part of this research highlighted the fact that **the more local the analysis, the higher the resulting estimate of need tends to be**. More fine-grained analysis was better able to capture the nuances of housing demand and supply locally:

“ *There is a lot more information provided by the Scottish Government but perhaps not as much of a deep understanding that you get from a more localised approach...there could be a danger of the loss of that context and local knowledge* ” (Local authority officer)

In a number of cases there was a local desire to expand the number of housing market areas to better capture the varied geography of housing need within particular localities. This was especially the case for local authorities covering rural and/or island communities. As one interviewee noted:

“ *We’re currently working with nine sub-market areas and often these are not truly adequate. If you ask locals and members, there should be dozens* ” (Local authority officer)

The geographic level of analysis was also an on-going consideration in local authorities where house prices and rents varied internally. This related to ‘pockets’ of relative affluence or poverty which deviated from the market average, as well as areas where sharp variations were apparent. In the latter case, where housing sub-markets are particularly polarized within areas (i.e. where the gap between Housing Benefit/Local Housing Allowance rates and market rents is higher), there may be more scope and demand for mid-market rent provision (see section 6).

Local policy issues were also sometimes at odds with HNDA geographies. For example, sustaining what one interviewee described as ‘very small, fragile communities’, often in rural areas, cannot be accounted for within the HNDA process where an aggregate analysis masks these concerns. This was reportedly a cause of tension in some local authorities as residents in remoter areas lobby for more housing to revitalise the community, but the HNDA and LHS processes are driven by the notion of need ‘where it arises’, which inevitably focuses in on the main population centres. Such concerns highlight the problems in balancing the specific local needs of relatively small communities, with the need for a robust evidence base.

Given the recent changes to the HNDA process alongside the variable timescales to which they are conducted at the local level, there is an unavoidable degree of variation in the approaches, assumptions and methods utilised within them. For example, the publication dates of the latest HNDAs collated and reviewed for this research vary from 2008 to 2015. Furthermore, some local authorities/SDPAs had recently undertaken their HNDA refresh exercise, some were conducting theirs over the course of the research, while others were about to embark on theirs. Previous research has also highlighted challenges within the HNDA framework, not least an over-emphasis on the provision of ‘new’ housing and the lack of a definitive and consistent definition of housing ‘need’ (Newhaven Research, 2011).

Within this context a pan-Scotland assessment of affordable housing need requires the development of an alternative, consistent approach which is informed by HNDAs and builds upon the CHMA model (see sections four and five). We return to the policy and funding implications of that assessment in section six.

4. Demographic trends and context

4.1. Introduction

This section sets out the demographic and housing context for the pan-Scotland assessment of affordable housing need that follows. It presents projections on household growth alongside evidence of recent changes in housing provision.

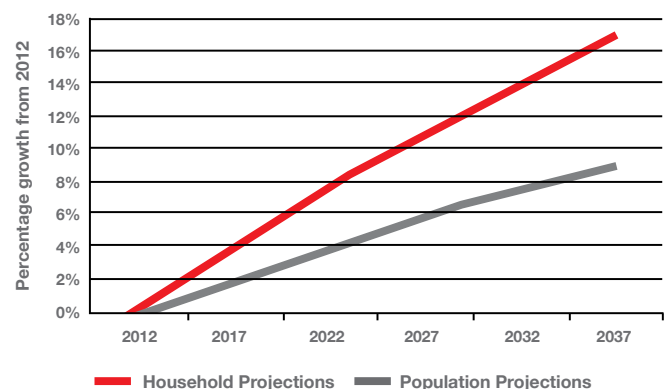
The context is provided at both the national and, where appropriate, the local authority level to illustrate national trends and some of the variation across the country. Further tables showing variations at local authority level are available in the Annex to this report. Particular attention is paid to the datasets and trends which underpin the key components of the model utilised in the following section. The components considered here are:

- **Future household projections** are taken from the National Records of Scotland (NRS) published projections and are considered first as the primary driver of changes in housing demand, before recent housing trends are described.
- **House price changes** are analysed to inform of the relationship between market demand and supply and market housing pressure.
- **Income and affordability** trends are presented to provide a more detailed view of the relationship between household economic changes and house price trends.
- **A classification of Scottish local authorities** used in the pan-Scotland assessment is then presented. This uses measures of migration self-containment and house price inflation to group together councils exhibiting similar attributes and trends.
- **New completions of social housing and newly available properties (re-lets)** are explored to ascertain the recent availability of social housing supply.
- **Homelessness** is a major contributory factor to the demand for affordable housing in Scotland. Open cases of presentations and recent trends in the flows of presentations and households assessed as homeless are analysed.
- **Changes to social housing stock** include both demolitions of social rented stock and Right to Buy properties. Recent trends are considered and recent changes to Right to Buy legislation contextualise the assessment of social housing supply.

4.2. Household projections

The overall level of demand for housing in Scotland is partly contingent on the population and number of households. Figure 4.1 presents the National Records of Scotland (NRS) principal population and household projections (2012) and reveals a steady increase in the number of households in Scotland between 2012 and 2037, adding 400,000 to the national total (2,782,774 households by 2037). The household projections grow at a faster rate than the overall population due to new household formation and decreases in average household size. A 17 per cent growth in households is expected between 2012 and 2037, and a nine per cent increase in the population. The national picture masks significant variation at the local authority level however. The City of Edinburgh and Aberdeen City are projected to grow significantly over the 25-year period, by 40 per cent and 36 per cent respectively (see Annex Table A1 for more details). The overall household growth in Scotland also includes three authorities with declining numbers of households: Argyll & Bute, Inverclyde and North Ayrshire.

Figure 4.1: Household and Population Projections (2012-2037)



Source: National Records of Scotland, population and household projections 2012

According to the NRS mid-year population estimates (2014), Scotland's population has been increasing steadily since 2004, and over the last two years has risen above the previous population peak experienced in the 1970s. Population growth has been driven by positive (but fluctuating) net migration since 2000, and positive (but low and fluctuating) natural change since 2007.

4.3. House price changes

House price changes are both a signal of the outcomes of actions in the housing market and an indicator to participants in it. House price data for Scotland drawn from both the Registers of Scotland (RoS) and Lloyds

House Price Index over the period 2003-15 are presented in Figure 4.2 below. RoS data by local authority for the period 2009 to 2015 are presented in the Annex (Table A5). Figure 4.2 reveals a period of varying prices, both between different authorities and over time within the same authorities. Clackmannanshire, for example, experienced house price inflation in three years, but declines in two. Aberdeen City on the other hand experienced inflation each year, but with levels fluctuating. The data is not weighted nor seasonally adjusted, and susceptible to changes in the volume of sales.

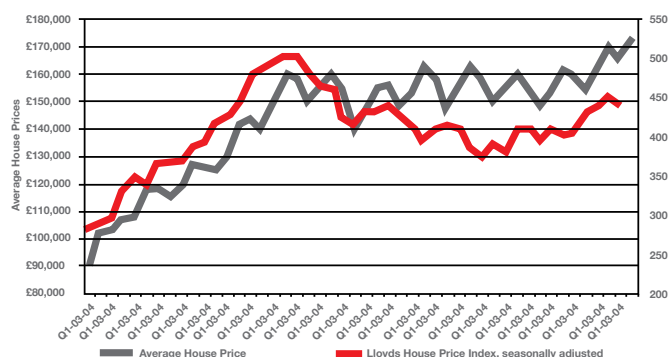
Evidence from local stakeholders interviewed as part of the research also highlighted short-term drivers of house price inflation in some areas in recent years. For example, the population of the Shetland Islands was said to have risen by ten per cent over the last two years, on account of the construction of a new gas plant which has brought an influx of construction workers and contractors onto the Islands. This may partly explain the sharp increase in prices there in 2013. Though deemed a short-term development it also has implications for other housing sectors in the immediacy however:

“ The PRS has completely been taken up by the oil and gas industry which has then created pressure on the social rented sector. ” (Local authority officer)

Similarly, house prices in Aberdeen and Aberdeenshire were linked to the oil industry to a degree. Above average house price growth there had been driven by increased in-migration related to the oil industry and rippled out from the city to the extent that: ‘you would have to go a long way outside the Aberdeen housing market area to get to the lower end prices’. This context had changed recently however:

“ The fall in oil prices has had an effect on the city with redundancies triggering the departure of some residents since the latter part of 2014. ” (Local authority officer)

Figure 4.2: Average House Prices in Scotland 2003-2014 & Lloyds House Price Index (seasonally adjusted)

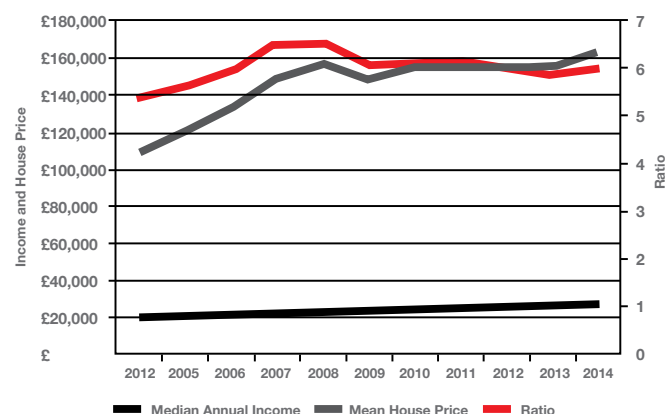


Source: RoS (Residential property £20,000-£1million); Lloyds Bank House Price Index.

These accounts illustrate the importance of the local economic context to house price inflation and underscore the need to consider different economic trajectories in estimating future affordable housing need. With this in mind different modelling scenarios, based on varying levels of migration and economic growth, are also presented in section five.

The affordability of housing is influenced by both house price changes and changes in incomes. The appropriate level of analysis for issues of affordability is often lower quartile house prices and lower quartile incomes. At the time of writing this data was not available; neither time series data nor the most recent year. Instead median incomes and mean house prices have been used to represent the overall trend in prices and incomes. These are shown in Figure 4.3 below. It should be noted that these trends are unlikely to be equivalent to those at the lower quartile level. Median incomes have risen steadily since 2004, whilst house prices have been more volatile. The variation in the ratio of house prices to incomes is a result of the changes in house prices rather than income fluctuations (although this is at the pan-Scotland scale and there may be significant variation between house price pressures and incomes at the housing market and local authority level).

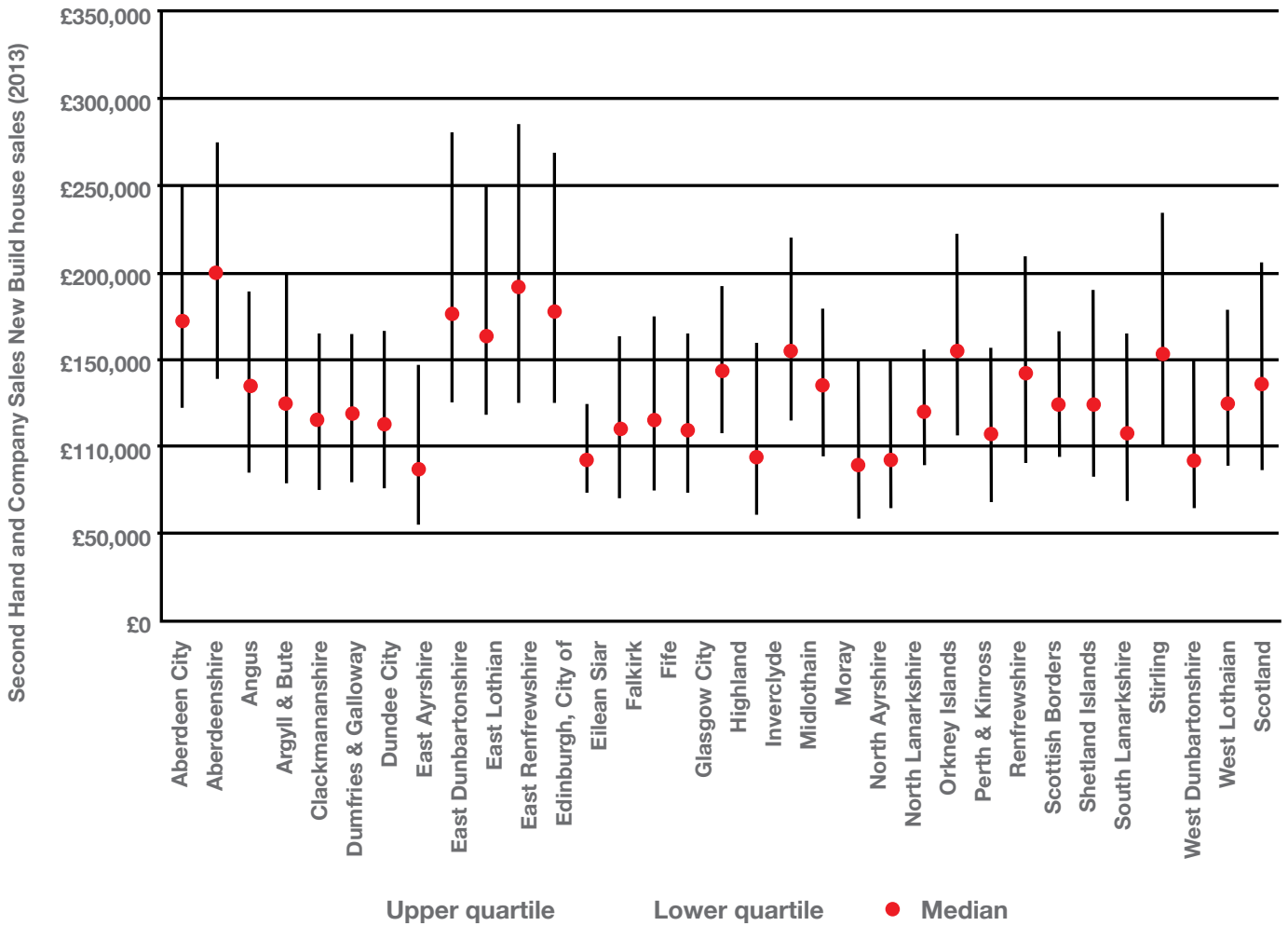
Figure 4.3: Median house prices and mean income in Scotland



Source: Median annual income: Annual Survey of Hours and Earnings, ONS – weekly income grossed up to annual income. House price: Register of Sasines.

House prices vary significantly across local authorities in Scotland. Figure 4.4 shows the lower quartile, median and upper quartile house prices in 2013 by local authority (this data was provided by the Scottish Government and represents a single point in time).

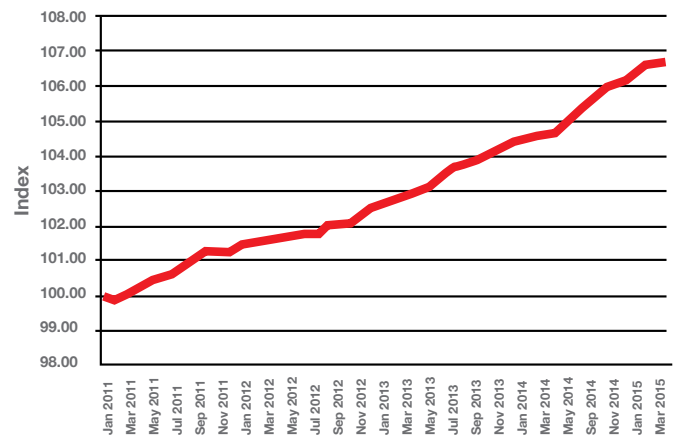
Figure 4.4: Lower Quartile, Median and Upper Quartile house prices (2013) by local authority



Both private house sale prices and private rents have seen increases in recent years. Whilst house prices have exhibited both seasonal and annual volatility, market rents in Scotland have experienced much less, with a steady increase since 2011. The Index of Private Housing Rental Prices fell in only three months over the entire period, and the rental index at the end of every quarter was higher than at the start of that quarter.

Collecting accurate information about rental prices is difficult. The Index is an experimental statistic produced by the Office for National Statistics. It uses data from the Scottish Government collected for purposes other than producing the index and should therefore be treated with a degree of caution. That said it does illustrate a very clear trend of rent inflation over the period.

Figure 4.5: Index of Rents (2-11-2015, January 2011 =100)

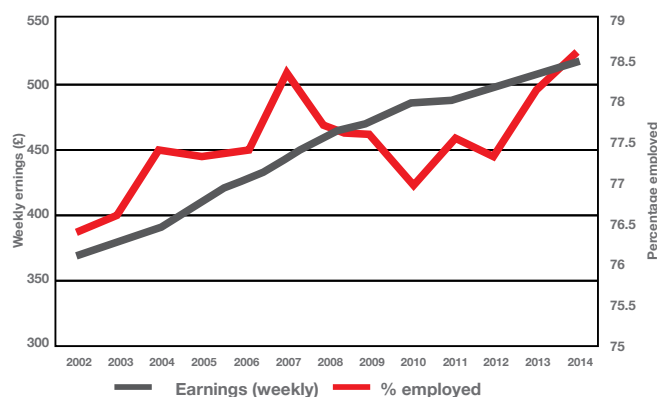


Source: ONS

4.4. Incomes and affordability

Figure 4.6 below shows that the average weekly income in Scotland has increased steadily in recent years, with no significant period of stagnation or decline since 2002. The data collected by the ONS represent resident analysis from the annual survey of hours and earnings (ASHE), with median earnings given in pounds for employees living in the area. Whilst average incomes have increased, the proportion of working age people in employment has fluctuated by 2.5 per cent over the same period. The employment rate fell after the financial crisis in 2007, but picked up again from mid-2010. Despite a subsequent downturn again in 2012, by the end of 2014 the proportion of residents in work was back above its previous recent peak in 2007.

Figure 4.6: Median weekly earnings and percentage of workforce employed



Source: Nomis, Labour Force Survey Indicators

4.5. Sub Scotland variation

A pan-Scotland assessment of affordable housing need must take account of the diversity of housing market context across Scotland. Whilst the top-level figures of household growth and historic house price change give a broad indication of trends, local variation in demand and supply is significant. Therefore any sensible assessment of affordable housing need nationally, must consider the similarities and differences between council contexts in terms of affordable housing demand and supply. The NRS household projections reveal different scenarios: of declining numbers of households in three

local authorities; but high levels of household growth in some of the largest cities in Scotland.

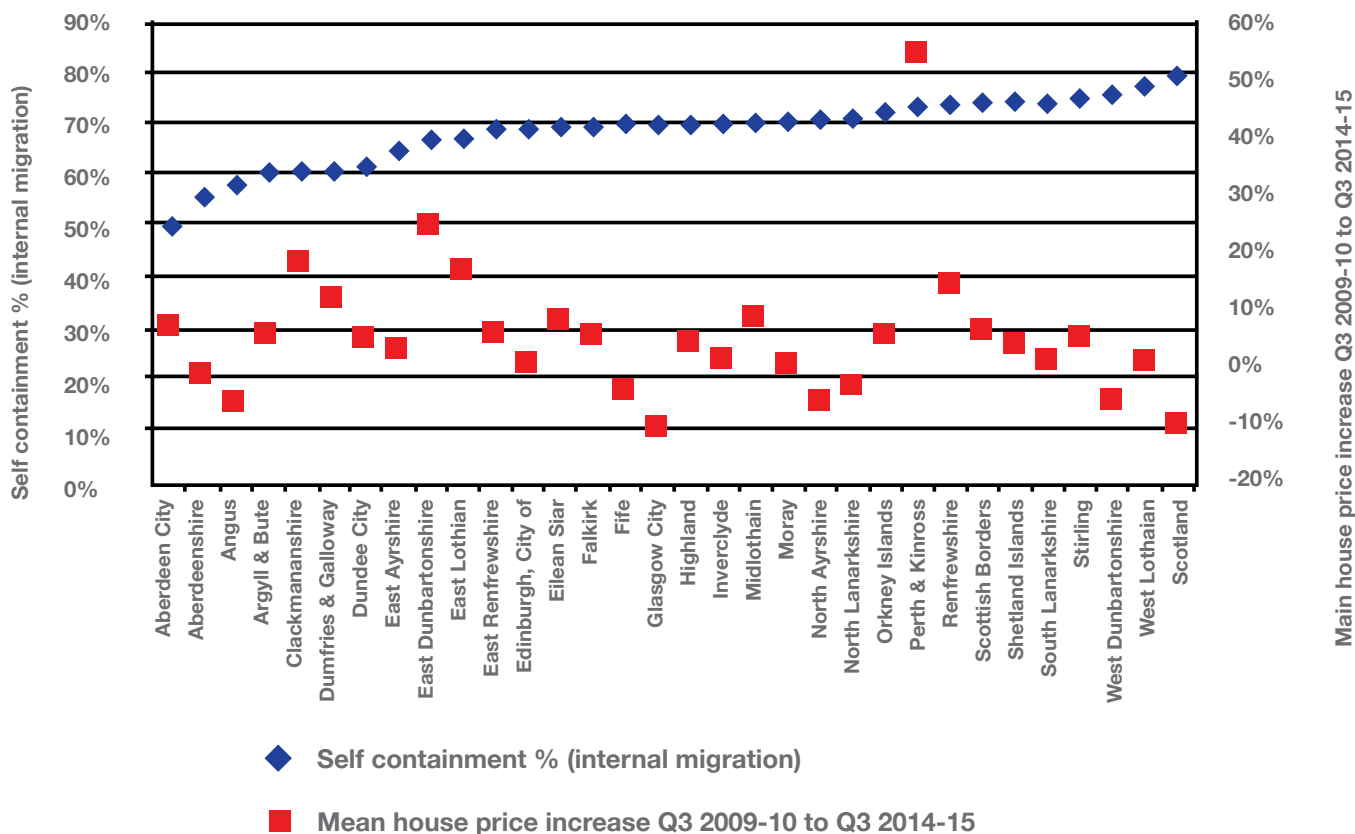
Likewise, despite being in a period of limited national house price increases in the open market, some areas have experienced significant inflationary pressures. The recent five per cent annual increase in house prices in Aberdeen illustrates this. The supply of affordable housing, social housing re-lets and new build affordable housing also show regional variation. This is partly as a function of the overall stock of social sector housing and its geographical distribution, but is also reflective of local initiatives in terms of new housing development. Thus, each local authority area has its own unique set of pressures, historic trends and future projections. However, to facilitate a pan-Scotland assessment, with sub-national variations included, it is possible to group local authorities based on their recent housing trends into different types.

A four-way classification was created for the purpose of grouping the 32 Scottish local authorities. Measures of migration self-containment and recent house price inflation were used. Local authorities were allocated to different groups based on whether they were above or below the median for each measure. Self-containment was measured from the proportion of moves that originated within the authority according to data from the 2011 Census of Population. House price inflation was measured by the change in average prices in quarter two, 2009 and quarter two, 2014 (all houses priced between £20,000 and £1 million).

House prices

Changes in house prices over the period 2009-14 have been described in more detail above. The classification of local authorities uses average house price change data to create an above and below median change bifurcation, as illustrated in Figure 4.7 below. In descending order, the Shetland Islands, Aberdeen City, East Renfrewshire and Aberdeenshire experienced the highest house price increases over the period. East Ayrshire, Inverclyde, Stirling and Dundee City all experienced the largest negative changes in house prices (fall in prices). Above and below median categories are used for the overall classification of local authorities, however, each category includes large-scale variation.

Figure 4.7: House Price changes and self-containment for each local authority



Source: Census of Population, 2011; RoS house price data.

Self-containment

The indicator of housing market self-containment is calculated from the 2011 Census of Population and based on the proportion of household moves originating within each local authority. The data do not include international migration, which may affect some urban authorities more than others. Nevertheless, the data serve as a reliable proxy of relative self-containment

within local housing markets. East Renfrewshire experienced the lowest level of self-containment with only 50 per cent of movers originating internally (six per cent less than the next lowest, East Dunbartonshire). Fife, Dumfries and Galloway, North Lanarkshire and Inverclyde were at the top end: all had more than 75 per cent self-containment. 70 per cent was the median value.

Table 4.1: Classification of Scottish local authorities – house price inflation by self-containment

	Above median house price growth 2009-14	Below median house price growth 2009-14
Above median self-containment	Angus	East Ayrshire
	Fife	Inverclyde
	West Lothian	South Ayrshire
	Highland	South Lanarkshire
	Edinburgh, City of	Falkirk
	West Dunbartonshire	North Lanarkshire
	Shetland Islands	Renfrewshire
	Orkney Islands	Dumfries and Galloway
Below median self-containment		North Ayrshire
	Argyll and Bute	Stirling
	Moray	Dundee City
	Midlothian	Clackmannanshire
	Perth and Kinross	Glasgow City
	East Dunbartonshire	East Lothian
	Eilean Siar	Scottish Borders
	Aberdeenshire	
East Renfrewshire		
Aberdeen City		

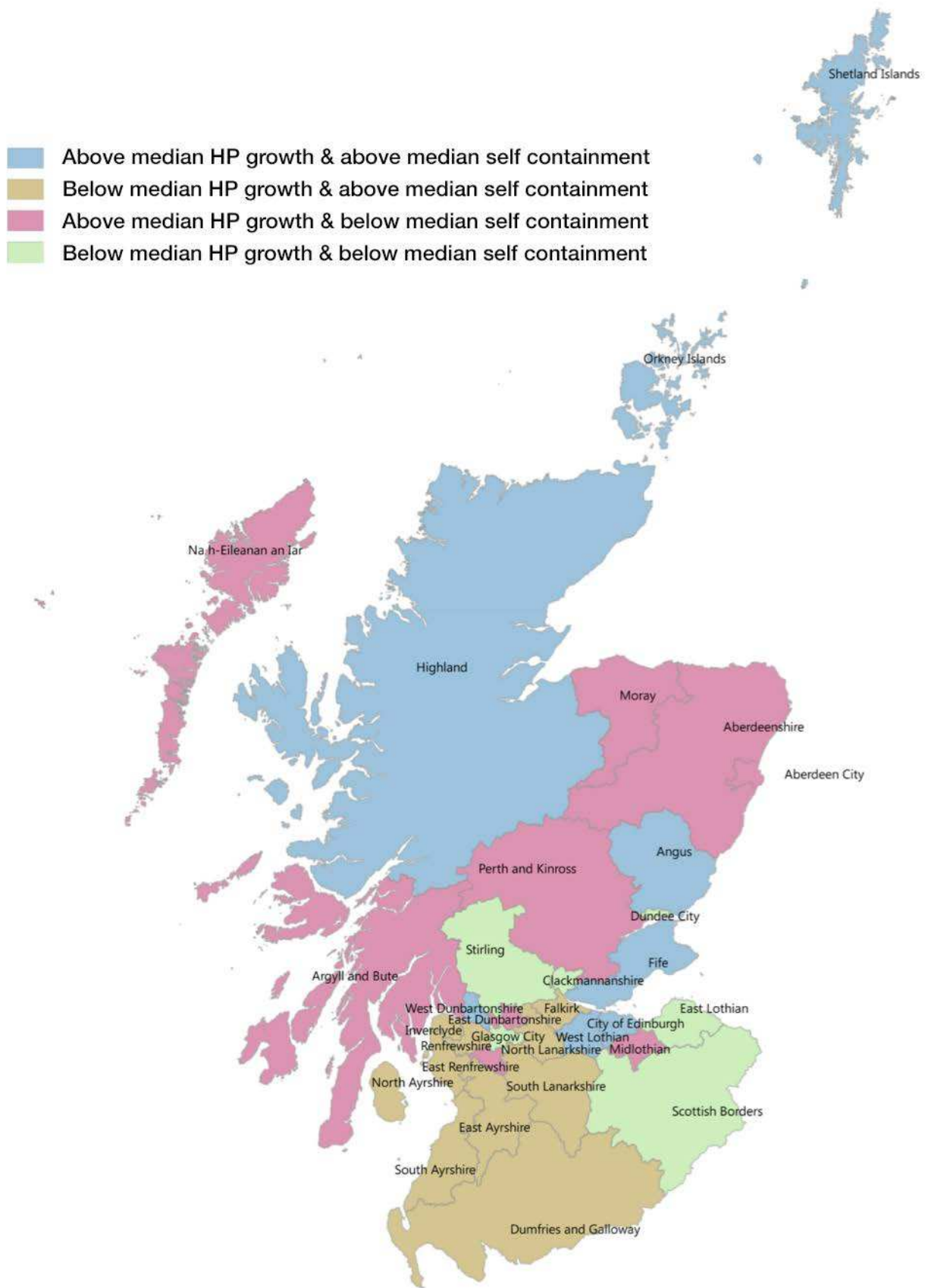
Source: authors' own typology

The four-way classification is presented in Table 4.1 above. Though only an indicative 'typology' it was sense-tested with local stakeholders interviewed as part of the research. All but one agreed on their position within the classificatory scheme in general terms, though the majority cited variations and counter-trends within discrete areas, or 'pockets', of their respective local authorities. In light of stakeholder consultation (and reflecting small sample sizes) one local authority, the Orkney Islands, was moved from the below median self-containment grouping, to above the median. The interviewee noted:

“ It's pretty well self-contained...it's not like Highland where you can work in Moray. On that issue, it makes [the HNDA] a little easier for us. ” (Local authority officer)

Figure 4.8 on the next page provides a visual representation of the local authority classification and the distribution of groupings across Scotland. This classification is used as the basis for the presentation of the results in the following section.

Figure 4.8: Typology of Scottish local authorities



4.6. Supply of new build social rented sector dwellings

New build social rented sector dwellings contribute significantly to affordable housing in Scotland. It is useful to contextualise these new dwellings within the overall picture of new house building, both to understand market provision and the potential for affordable housing contributions in new development.

As Figure 4.9 below illustrates, during the period from 1997 to 2007 house building increased to more than 25,000 units per annum (social and private). Since 2007 there has been a significant decrease to just over 15,000 units completed in 2014. The downward trend in house building conforms to wider trends in the UK since the onset of the financial crisis in 2007. 2014 did, however, represent the first year since 2007 that the year on year number of dwellings completed increased, from 14,884 in 2013 to 15,541 in 2014. It is too early to discern whether this is an isolated increase or whether 2014 is the beginning of an upwards trend.

The supply of new social sector housing completions by local authority since 2010 is shown in Table 4.2. The trend has been a steady decline at the national level. In 2010 5,700 new dwellings were completed, but by 2014 this had fallen to 3,200 – a decrease of 44 per cent. The 2010 figure partly reflects counter-cyclical decisions to bring forward investment from later years. If the rate of decline continues, then new social rental sector completions in each of the next few years will be well

below the 2010-2014 five year average. At the local authority level there is significant variation year on year.

Like the population of Scotland and the overall social sector stock, the development of new social housing is geographically varied. Glasgow City, for example, accounted for almost a quarter (23 per cent) of all new social sector builds in Scotland in 2014; and Dumfries and Galloway 12 per cent. Year on year variation in delivery creates some differences but, taking a three year average, Glasgow still accounts for 18 per cent; and Dumfries and Galloway 11 per cent. West Lothian is the third largest provider of new social housing on five per cent.

Figure 4.9: Number of new dwellings completed per annum in Scotland



Source: Scottish Government, Housing Statistics for Scotland.

Table 4.2: New social sector housing completions by council area per annum, 2009-14

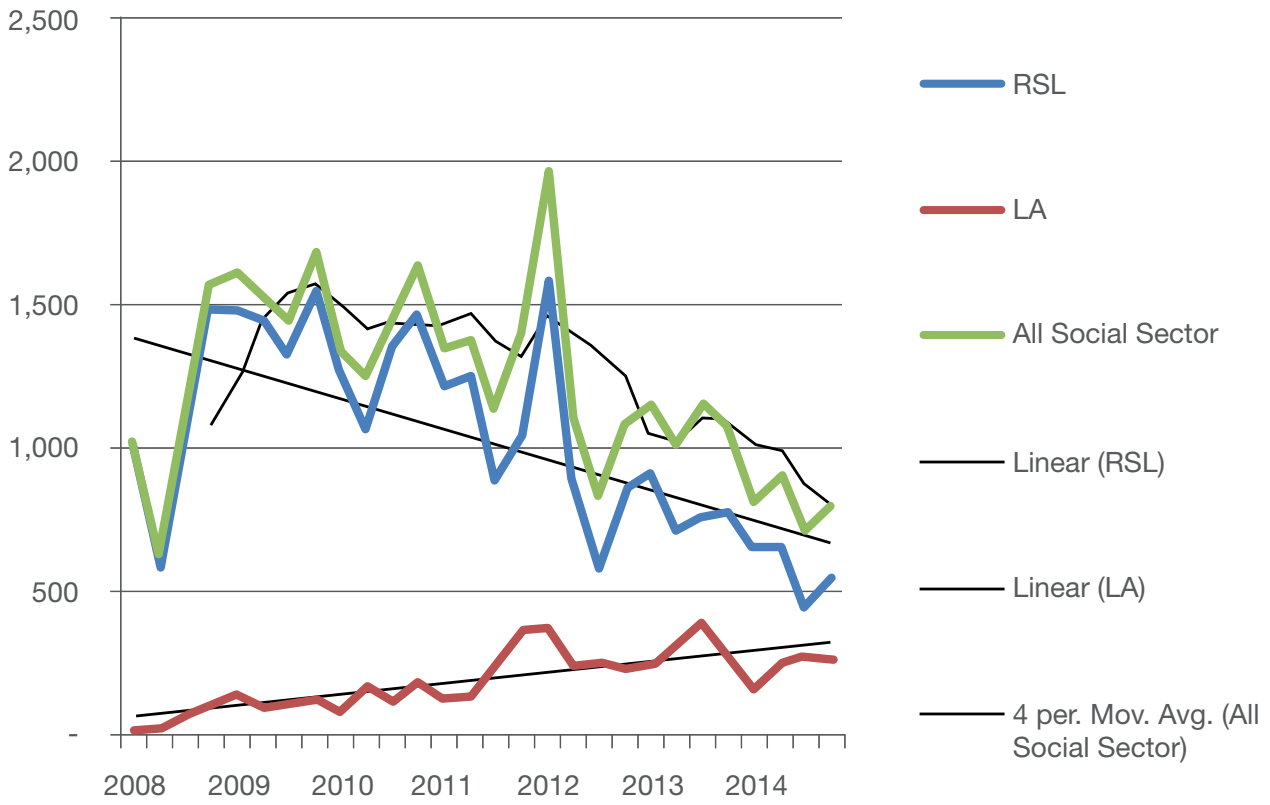
Local authority district	2010	2011	2012	2013	2014	5 year average
Aberdeen City	69	326	66	68	159	138
Aberdeenshire	367	59	37	66	20	110
Angus	65	30	25	117	21	52
Argyll & Bute	199	1	99	150	115	113
Edinburgh, City of	491	521	499	624	249	477
Clackmannanshire	56	10	0	65	26	31
Dumfries & Galloway	72	64	90	27	389	128
Dundee City	176	59	92	87	0	83
East Ayrshire	95	42	132	15	18	60
East Dunbartonshire	36	101	139	148	94	104
East Lothian	239	137	159	151	0	137
East Renfrewshire	130	31	119	16	0	59
Eilean Siar	0	95	21	34	8	32
Falkirk	172	142	52	46	183	119
Fife	213	214	261	133	138	192
Glasgow City	894	1,167	909	621	737	866
Highland	580	218	290	188	155	286
Inverclyde	25	181	354	126	0	137
Midlothian	108	193	291	82	20	139
Moray	221	141	234	58	89	149
North Ayrshire	139	91	123	112	146	122
North Lanarkshire	338	134	108	282	32	179
Orkney	19	98	123	78	22	68
Perth & Kinross	77	204	61	85	18	89
Renfrewshire	90	236	83	233	55	139
Scottish Borders, The	116	63	6	97	21	61
Shetland	22	72	13	30	67	41
South Ayrshire	174	105	76	56	35	89
South Lanarkshire	60	139	299	144	69	142
Stirling	123	111	0	98	84	83
West Dunbartonshire	0	205	73	39	111	86
West Lothian	344	67	187	327	136	212
Scotland	5,710	5,257	5,021	4,403	3,217	4,722

Source: Scottish Government, Housing Statistics for Scotland

Although the supply of new-build social sector dwellings has been falling in recent years across Scotland, Figure 4.10 below illustrates that there has been an increase in the number of council properties being built. This is a reflection of the Scottish

Government's target to provide 30,000 affordable new homes over the current Parliament, 5,000 of which are intended to be Council houses (see section six). However, local authority completions still remain much lower than the number developed by RSLs.

Figure 4.10: Supply of new-build social sector dwellings, per quarter, 2008-14



Source: Scottish Government, Housing Statistics for Scotland⁴

4. We are grateful to James Duffy of the Scottish Housing Best Value Network for providing this Figure.

4.7. Lettings

One of the largest sources of affordable housing in Scotland is lettings in the social rental sector, including both local authority and registered social landlord dwellings. Comprehensive and accurate data on social lettings is, however, difficult to obtain. SCORE data collection ceased in 2015, but had collected information on a voluntary, and therefore partial, basis previously. The introduction of ARC data (to assess landlords against the Scottish Social Housing Charter) now

collects compulsory information from all housing associations and local authorities, but not broken down by local authority. Therefore, whilst there are multiple methods for projecting social rental lettings at the local authority level, each method is encumbered by the quality of the data.

As Table 4.3 below illustrates, the provision of social housing in Scotland is geographically uneven in both

Table 4.3: Local authority and registered social landlord lettings by local authority

	2011			2012			2013		
	LA	RSL	Total	LA	RSL	Total	LA	RSL	Total
Aberdeen City	1,599	568	2,167	1,696	515	2,211	1,521	485	2,006
Aberdeenshire	1,025	598	1,623	1,080	695	1,775	1,038	654	1,692
Angus	750	471	1,221	892	452	1,344	821	426	1,247
Argyll & Bute	0	848	848	0	838	838	Na	789	789
Edinburgh, City of	360	160	520	383	185	568	352	174	526
Clackmannanshire	0	1,351	1,351	0	1,254	1,254	Na	1,181	1,181
Dumfries & Galloway	1,314	982	2,296	1,324	1,000	2,324	1,084	942	2,026
Dundee City	1,384	474	1,858	1,457	483	1,940	1,553	454	2,007
East Ayrshire	193	228	421	264	209	473	315	197	512
East Dunbartonshire	627	240	867	664	264	928	590	249	839
East Lothian	246	172	418	269	202	471	289	190	479
East Renfrewshire	1,867	1,862	3,729	2,056	2,014	4,070	1,839	1,896	3,735
Eilean Siar	0	196	196	0	257	257	Na	242	242
Falkirk	1,312	526	1,838	1,251	478	1,729	1,389	450	1,839
Fife	2,467	957	3,424	2,577	948	3,525	2,325	893	3,218
Glasgow City	0	9,504	9,504	0	9,747	9,747	Na	9,176	9,176
Highland	1,057	878	1,935	1,088	892	1,980	1,291	839	2,130
Inverclyde	0	931	931	0	1,042	1,042	Na	981	981
Midlothian	481	256	737	625	279	904	564	263	827
Moray	361	444	805	448	352	800	552	332	884
North Ayrshire	952	425	1,377	944	454	1,398	962	428	1,390
North Lanarkshire	3,261	774	4,035	3,294	860	4,154	3,153	810	3,963
Orkney	60	69	129	111	69	180	131	65	196
Perth & Kinross	466	384	850	605	482	1,087	881	454	1,335
Renfrewshire	1,078	800	1,878	1,012	965	1,977	1,368	908	2,276
Scottish Borders, The	0	1,305	1,305	0	1,285	1,285	Na	1,210	1,210
Shetland	166	102	268	136	97	233	157	91	248
South Ayrshire	714	227	941	775	335	1,110	681	315	996
South Lanarkshire	1,838	527	2,365	2,123	588	2,711	2,350	554	2,904
Stirling	270	209	479	304	219	523	296	206	502
West Dunbartonshire	827	563	1,390	959	591	1,550	1,042	556	1,598
West Lothian	964	696	1,660	889	735	1,624	977	692	1,669
Scotland	25,639	27,727	53,366	27,226	28,786	56,012	27,521	27,100	54,621

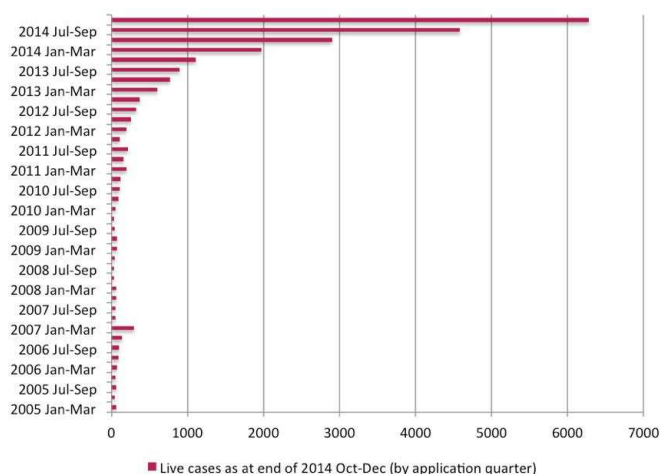
Sources: LA Data: Lettings returns by local authorities to the Scottish Government, Communities Analytical Services (Housing Statistics), RSL Data: The Scottish Housing Regulator Registered Social Landlord Annual Performance And Statistical Return 2012-13 (No data is available for RSLs in 2012 and 2013 by local authority. Values for RSLs and Totals in 2012 and 2013 imputed from RSL averages in 2010 & 2011)

levels and type. Some authorities undertook a wholesale stock transfer of their Council properties to housing associations, whilst others retained part of their housing stock.

4.8. Homelessness

Homelessness is a significant source of demand for affordable housing in Scotland. The total number of homeless households requiring housing over the next five years comprises: households that are *currently* homeless (or waiting to be assessed as homeless); and households that will become homeless during the next five years. Total homelessness is therefore both a stock and flow cause of affordable housing demand. At 9th March 2015 there were 20,340 open homelessness cases with local authorities across Scotland. Whilst the vast majority of these cases were presented to local authorities recently, some cases have been open for a much longer period, as illustrated by Figure 4.11 below. 67 per cent of cases were opened in the preceding 12 months and 86 per cent within the previous three years. Five per cent of cases were opened more than eight years previously.

Figure 4.11: Homelessness presentations (number of live cases) by year of presentation



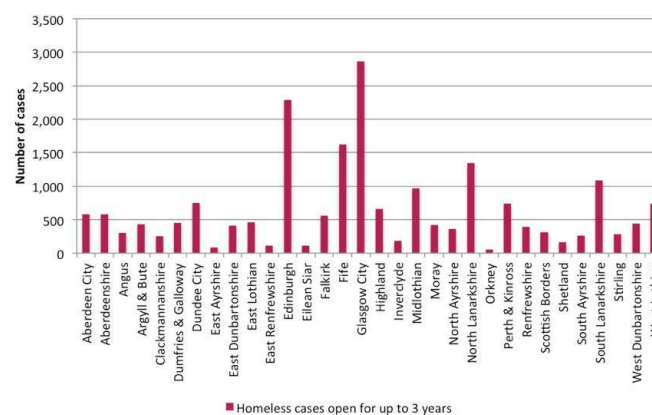
Source: Communities Analytical Services, Scottish Government

The number of older and open homelessness cases is likely to reflect a significant number of instances where communication has been lost with the applicant, or there have been difficulties in processing the application. Using a cut off of three years is therefore a better representation of the number of open *and* 'live' homelessness applications. As shown in Figure 4.11, there is a long tail after three years from the current quarter of applications (Oct-Dec 2014).

At the local authority level the number of open cases (using the three year cut off) is presented in Figure 4.12 below. Glasgow and Edinburgh have significantly higher numbers of open cases than any other local authority; although Fife, North Lanarkshire and South Lanarkshire all have more than 1,000 open cases. East Ayrshire,

East Renfrewshire, Eilean Siar and Orkney all have very low numbers of open cases. Due to data protection and disclosure control issues it is not possible to access data by year at the local authority level.

Figure 4.12: Number of homelessness cases open (presented in last three years) by local authority



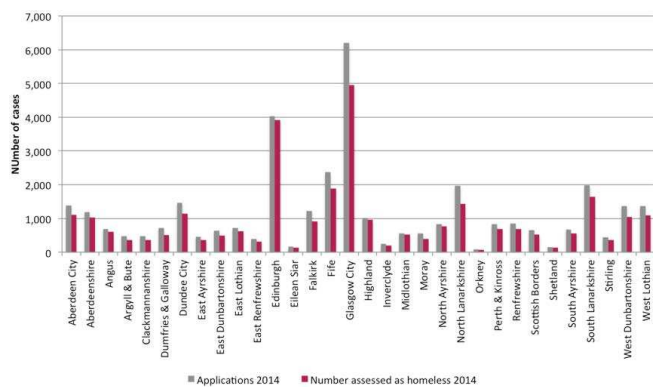
Source: Communities Analytical Services, Scottish Government

The proportion of homelessness applications versus those households actually assessed as homeless varies by local authority and is illustrated in Figure 4.13 below. In 2014 Edinburgh accepted almost as many applications as were made in the year. In contrast, in Glasgow approximately four-in-five homeless applications are assessed as homeless. Whilst it is possible to draw some comparisons between authorities, applications accepted in a calendar year will not all have been presented that same year. Glasgow had the highest number of presentations and acceptances, whilst Orkney had the least of both.

Figure 4.14 shows the number of homelessness presentations alongside numbers assessed as priority, or non-priority, need across Scotland since 2002. It reveals significant fluctuation in presentations on a seasonal basis. It also shows a downward trend in the number of presentations since around 2006/7. It should be noted that presentations do not necessarily equate to actual levels of homelessness, or rooflessness. 'Hidden homelessness' (e.g. households temporarily staying with relatives or friends, including 'sofa-surfers') is a growing concern across the UK since the recession and the onset of welfare reform, and cannot be accounted for within official datasets on homelessness. It is therefore likely that most estimates of homelessness are significant underestimations.

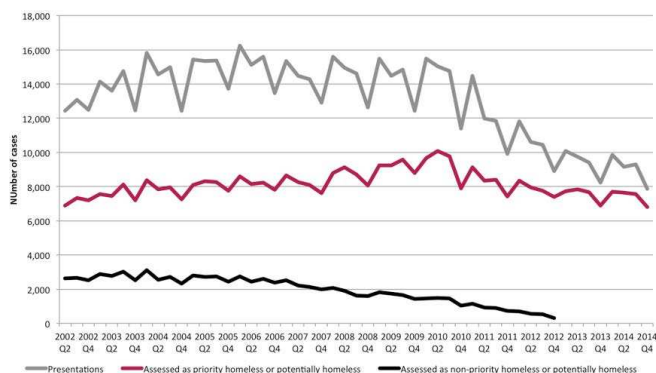
The number assessed as priority homeless was rising until the end of 2010, before it began to follow the downward homeless presentations trend. In 2012 the category 'non-priority homeless' was removed and there is now no distinction in Scotland between priority and non-priority homeless, a divergence from the policy in England and Wales.

Figure 4.13: Number of homelessness applications and assessed as homeless in 2014 by local authority



Source: HL1 data, Scottish Government

Figure 4.14: Number of homelessness presentations and assessments as homeless (priority and non-priority)

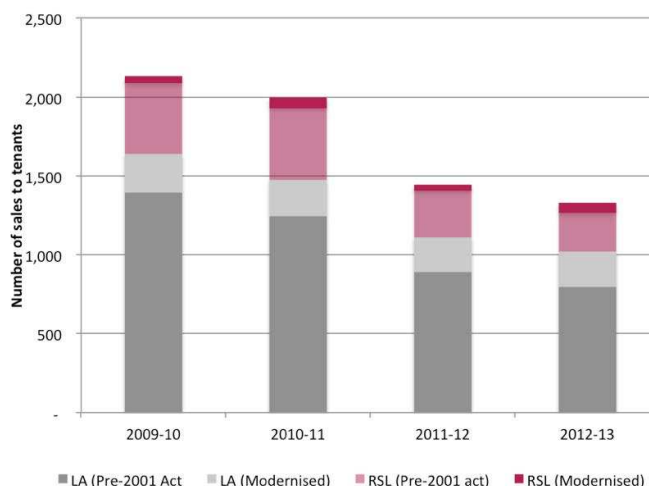


Source: HL1 data, Scottish Government

4.9. Changes to affordable housing stock

Figure 4.15 below shows sales to tenants under the Right to Buy between 2009 and 2013. There was a decrease in the number of dwellings sold to tenants in each of the financial years over that period. The majority of Right to Buy sales were of local authority rather than registered social landlord stock. The Pre-2001 Act Right to Buy sales accounted for more than three times the modernised version of Right to Buy. The total Right to Buy sales in Scotland for each year were less than half of the number of new social sector dwelling completions in each year.

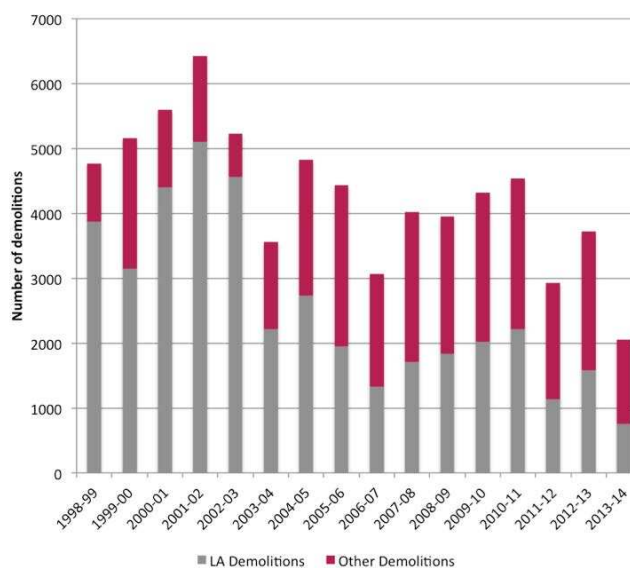
Figure 4.15: Right to Buy sales 2009-13)



Source: LA Data: Stock1 returns to the Scottish Government, Communities Analytical Services (Housing Statistics). RSL Data: The Scottish Housing Regulator Registered Social Landlord Annual Performance and Statistical Return 2012-13.

In addition to the Right to Buy, dwellings were also lost to the social rental sector through demolitions. Figure 4.16 below shows demolitions in both the social and private rental stock. The data for the private sector is inaccurate and is likely to under- rather than over-represent the number of dwellings demolished each year. The data for the social rental stock is more accurate, but there are some discrepancies within records. 2013-14 represents the first time that demolitions of social rental stock have been less than 1,000 per annum in over 15 years.

Figure 4.16: Demolitions of housing stock per annum



Source: Stock4 Returns (NB: demolitions data is taken from local authority returns, the data collated by the Scottish Government contains a warning that data is likely not to be accurate with regard to 'other demolitions' but are considered a minimum estimate of the true level of demolitions. The 'other' category includes RSL demolitions where known.

4.10. Summary

In summation, demographic and housing market trends in Scotland point to significant housing pressures, with the potential for a worsening situation in terms of access to affordable housing in the short- to medium-term:

- Household projections show that **the number of households in Scotland is growing at a steady rate, as is the Scottish population**, underscoring the need for an increase in housing delivery over the longer-term.
- **House prices show an upward trend** since their previous peak in 2007 and look set to reach that peak again in the near future, based on the Lloyds House Price Index shown above.
- **Market rents have also increased steadily** and consistently year on year, which is perhaps unsurprising given that the social rented sector has contracted and many households are struggling to access homeownership.
- Overall **housebuilding levels are still well below their peak at 2007** and social housing completions have fallen by 44 per cent from 2010 to 2014 – to just 3,217 last year.
- **Social rented stocks have also been depleted** through demolitions and the Right to Buy.
- Though the number of households assessed as homeless has fallen since a peak in 2010, **homelessness is still a pressing issue in many local authorities.**

An understanding of this context and overall trends informs the assessment of affordable housing need in the subsequent section, with several datasets forming component parts of the model. It also feeds into the discussion of the policy and funding implications in section six.

5. A pan-Scotland assessment of affordable housing need

5.1 Introduction

The assessment of affordable housing need across Scotland is not solely a technical exercise.

As we have stated earlier, any attempt to measure need must confront several modelling issues which ultimately depend on ‘normative’, or ‘subjective’ views on social matters, and will be highly dependent on assumptions that are made which govern the selection of input data, the variation of key parameters, and the weight accorded to interpretation of scenarios. Despite this, it is clear that any estimation must start from the point of having a core statistical model, through which the key issues can be debated and their likely influence on judgements that might inform policy better understood.

In this section we set out a statistical model of affordable housing need that attempts to balance the need to create a model that is robust and evidence-led at the level of the country as a whole, with the need to be sensitive to an array of potential local issues that will inflect the overall assessment of need. The model is operationalised at the level of local authority areas, to allow some recognition of variation in local circumstance. Presentational interpretation of the results, however, is at the level of Scotland as a whole and by a set of grouped areas. This is to allow the distinction to be made in general terms between different *types* of local authority area without presenting evidence that may be seen as contradictory to Councils’ own HNDAs,⁵ nor prejudicial to local policy making that rightly should only be based on an analysis of local data and circumstances. **Our basic principle is that a national assessment of housing need cannot simply be the sum of local needs assessments** but must proceed using a set of common assumptions. Local assessments can then be interpreted within the context of our assessment of Scotland as a whole.

In this section, we first set out the general architecture of a model of affordable housing need which draws on recent publicly available datasets and combines these with analysis undertaken using the Scottish Government’s CHMA Tool. We then go on to describe the key input variables and choices we have made regarding assumptions and the selection of parameters.

The section then turns to consider the geography of housing need in Scotland. It does so by drawing on some of the contextual material presented in the previous section to define a typology of local authority

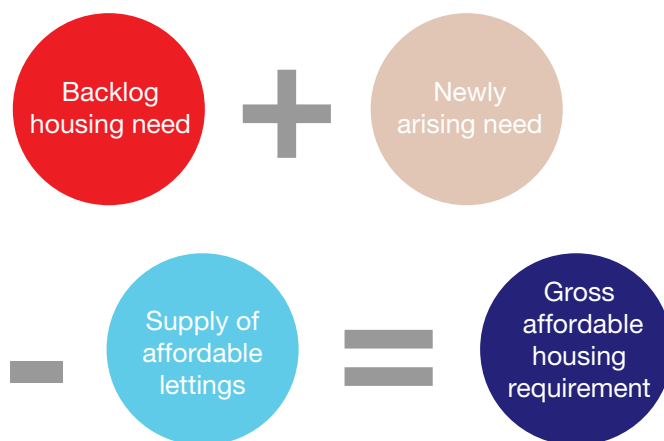
areas. We then consider the extent to which affordable housing needs can be met in neighbouring local authority areas drawing on evidence from academic studies of household mobility and data on internal (domestic) migration from the 2011 Census. This is used to justify a method termed the ‘Positive Need’ calculation in the model, in which the capacity for needs to be met outwith the local authority area that they arise in is assumed to be nil or, at best, very limited.

The section then provides the results of the model. A main version of the model is presented firstly – this is termed the ‘Core Model’ as it is built around ‘core’ assumptions built into the CHMA Tool. A set of four scenarios are then presented which provide bottom and top-end assessments of affordable housing need by varying assumptions related to household formation and affordability within the overall calculation of needs expected to arise in the future. We have not built any scenarios around our assessment of backlog (i.e. existing) housing needs. Instead, we present an analysis of the sensitivity of the model to variations in key input datasets.

5.2. Basic Model Architecture

We employ a stock-flow model of the type commonly used in housing needs assessment in the UK. The basic needs model is to estimate the ‘stock’ of backlog (or existing) need, and then add to this the ‘flow’ of future needs that will arise on an annual basis. At this point, estimates of the likely supply of affordable lettings that can be expected to become available can be netted off to provide a basic assessment of the shortfall (or surplus) in any given area. This overall architecture is depicted in Figure 1. (A more detailed flow chart of the model is provided in Annex Figure A1.)

Figure 5.1: Model architecture



5. HNDAs are able to use local data to assess and respond to a range of local housing market issues that may not reflect general market conditions in Scotland. Our analysis of published HNDAs in Scotland suggests that a wide range of local data sets are employed to measure housing needs, using varied assumptions and parameters.

It is important to be clear that the model thus estimates the gross (i.e. overall) affordable housing that is required in Scotland. It is not therefore dependent on assumptions about the forward supply of new affordable housing holding true. Indeed, the *net affordable housing supply* calculated in step 3 of the basic model architecture relates only to the ‘natural’ supply brought about through re-lets of affordable housing, and does not include the new supply brought about through construction. It is possible to illustrate the effect of construction at recent past rates against our estimate of gross affordable housing need, as we do later in this section.

The basic building block employed in the model is the local authority area. Wherever possible, data relate to the 2013/14 financial year, or a period of time leading up to this year – although sometimes exceptions to this principle were necessary owing to data constraints. We clearly note where this is the case.

Our standard assumption is that a finite period of time should be allowed to clear the backlog of housing need. Most, but not all, HNDA's adopt a 10 year horizon for the clearance of the backlog although for some it is shorter. There are advantages, however, to adopting a shorter timeframe such as five years. First, forecasts of population and household growth, and change in market conditions, are more likely to be correct over the short term than they are in the medium- to long-term. Second, expressing backlog housing need as a problem to be dealt with immediately rather than well into the future is more socially just. Finally, it provides a clearer indication of the scale of the programme that might be required within normal parliamentary and spending review cycles. For these reasons, **we use five years as our base timeframe for dealing with backlog need.**

5.3. Input variables and assumptions

Within the overall design of the model are component estimates of backlog housing need, newly arising need, and affordable housing supply. These are set alongside demographically driven estimates of the likely overall housing requirement that are produced by the Scottish Government's CHMA Tool.

Within each component there is considerable scope to vary the input variables. For transparency, we set out in this section the variables we use, a justification for these choices, and the underlying assumptions we make. Care has been taken at every step of the model to understand the potential impact of the choices made. Whilst no model can arrive at a perfectly ‘objective’ assessment of need, we have been concerned to ensure that the choices made are defensible in that they reflect widely-held assumptions and strike a balance between generous and restrictive treatments of housing need.

Backlog housing need

Given the scale of the housing challenge, the estimation of backlog housing need has a significant impact on the

overall conclusions about the extent of need for new affordable housing in Scotland. As is clear from earlier comments and the literature more widely, the estimation of backlog need and proposals for dealing with it remain the subject of policy judgement.

It is also clear, however, that relying on indicators that are overly sensitive to changing policy – and, especially, local variations in policy and practice – are not a sensible basis for the estimation of need. It is in the estimation of backlog need that the greatest differences between a Scotland-wide model and the analysis contained within local HNDA's is likely to be found. Our approach has been to avoid relying on waiting list data, or other ‘administrative’ estimates of demand pressure of this type, because they reflect differential allocations policies and approaches to dealing with the maintenance of the list.

Conceptualisation of housing need

The concept of housing need is an inherently and inescapably normative one. This extends to assumptions about the geographic scale over which needs should be measured and responded to (we discuss this point about geography later in this section). At one end of the normative spectrum one might imagine a more restrictive position whereby concealed households, including those arising from delaying entry into independent housing and ‘sofa surfing’, are considered an acceptable market outcome. Such a view might also be characterised by an attitude towards stock condition that applies a *de minimis* regard to basic decency thresholds; and that views the extent of homelessness as more or less captured by the level of serious rooflessness. At the other end of the spectrum, a more generous attitude might manifest itself in a recognition: that household projections systematically underrepresent sharing and concealed households; that these circumstances represent legitimate need; that a wider range of problems with the condition of housing are recognised; and that homelessness is manifested in a wide range of complex ways. The abolition in 2012 of the Priority Need test for homelessness in Scotland suggests a policy position regarding homelessness that is closer in intent to this latter definition.

5.4. Calculating backlog housing need

At its most basic level, our calculation of backlog housing need involves assessing the extent of need that exists by virtue of the **household being inadequately housed** (or, put another way, in housing that is unfit to meet the needs of the household) and adding to this an element of need that exists because **households are homeless**.

It is important to recognise that there is to some extent an overlap between these two components of the backlog and we have taken steps to account for this, as detailed below.

Households inadequately housed

Our estimate of backlog housing need that is comprised of households that are housed inadequately is based on the following assumptions:

- **Overcrowding:** A household is in need if it occupies a dwelling that is overcrowded according to the accepted bedroom standard.⁶
- **Quality:** A household is in need if it occupies housing that is below a recognised quality standard (see Table 5.1 below).
- **Suitability:** A household is in need if it has particular requirements arising from health/medical reasons and the dwelling it occupies is unsuited to these requirements.

To operationalise these criteria, we use pooled weighted data from the Scottish House Condition Survey (SHCS). In line with SHCS guidance, data from three years (2011, 2012 and 2013) are pooled to provide robust estimates at the local authority level. Within the SHCS dataset, weights are applied to ensure that statistics are representative of (and gross to) the population of households in Scotland as a whole. Whilst avoiding double counting, we consider a household to be in need if it meets **at least one of the overcrowding, quality, and suitability criteria**. Table 5.1 describes questions/variables from the SHCS that were used.

Table 5.1: SHCS questions and categories used to measure inadequate housing

Criterion	Question	Categories/ responses included
Overcrowding	<i>Bedstand</i> – derived variable estimating compliance with the bedroom standard	‘Below standard’
Quality	<i>Qbts</i> – below tolerable standard and/or <i>Qdisrep</i> – in state of disrepair	‘Fail’ on either or both
Suitability	<i>Suitable</i> – property is suitable for needs of households (subset of households only)	‘Not very suitable’ or ‘Not at all suitable’

Table 5.2 summarises the number of households that are in each mutually exclusive combination of the categories presented in Table 5.1, together with a total

Table 5.2: Number of households in housing that is unfit for their needs, by category and Council Area type.

Area Type	Category of need							Households in need owing to unfitness of property for needs	
	Below standard only	Over-crowded only	Un-suitable only	Below standard and Over-crowded	Below standard and Un-suitable	Over-crowded and Un-suitable	Below standard, Over-crowded and Un-suitable	No.	% of all households
1	17,821	10,477	6,520	841	0	0	0	35,659	5.7
2	16,690	20,290	9,803	1,258	254	0	0	48,294	6.4
3	19,428	11,675	3,644	1,643	177	0	0	36,567	7.5
4	17,212	18,366	7,787	1,481	0	360	0	45,206	8.8
Scotland	71,151	60,808	27,753	5,222	431	360	0	165725	7.0

Notes: there are no households in all three categories. The ‘unsuitable’ measure relates only to that subset of all households that have health/age-related support needs.

Source: weighted sum of pooled SHCS data (2011, 2012, 2013) at household level (selected variables – see text). Total of weighted sum of households in pooled SHCS dataset is 2,381,334.

6. Overcrowding may not technically arise in certain circumstances such as a result of the ageing of a child, or where overcrowding is licensed by the housing authority. Living rooms may also be used to meet needs for the purposes of determining overcrowding from a legal standpoint. We use the bedroom standard, a recognised measure of overcrowding based on age, gender and marital status of occupants, which might be considered a slightly more liberal interpretation.

number of households that are in need owing to the unfitness of their property for their household's needs. Using these measures, a total of 165,725 households in Scotland are currently living in unsuitable accommodation. This represents seven per cent of all households in Scotland. This calculation is made irrespective of income or current tenure. As we go on to discuss, these characteristics are important in determining whether the household's situation might represent a need for an additional housing unit.

Like the Bramley *et al.* (2006) model, it is in the estimate of backlog need that housing conditions are taken into account, insofar as they can be. The working assumption is that properties do not significantly fall into disrepair; and there are sufficiently resourced capital and revenue programmes to deal with housing conditions in the social rented sector. Where this is not the case the actual level of housing investment required to deal with needs will be higher than that implied by the model. This may be particularly important in parts of Scotland where the legacy of large scale housing schemes and disrepair creates a localised challenge around conditions and/or the need for scheme-based regeneration. This may also have implications for the setting of housing supply targets.

Accounting for needs within the Social Rented Sector

Where a household in need according to the above measure is currently in the social rented sector (SRS), it is discounted from the calculation. As a result, the combined overcrowding/quality/suitability measure consists only of those households living in owner-occupation, the private rented sector (PRS), or other private tenures. The reason for this is that such needs among SRS tenants are likely to be eligible to be met *in situ*: either by means of repairs or adaptations made to the property; or otherwise through an internal transfer to a more suitable property. In this latter case, the assumption is that the vacated property becomes available to meet needs (this is why re-lets occasioned by a transfer internal to the SRS are discounted as a source of supply later in the model – see below). There is a basic underlying assumption that social landlords have the resources and capacity to maintain and improve stock, while this is less certain in those sections of the PRS housing low income households (indeed, the SHQS was intended to focus resources on improving standards within the SRS). The effect of this netting-off is summarised in column B of Table 5.3.

Table 5.3: Calculation of net backlog need owing to unfitness of property for household needs

Area Type	A Gross households in need	B Of which, are in the Social Rented Sector	C Mismatch adjustment based on average re-let times (%) (see text)	D Households in need but not in SRS (after mismatch adjustment)	E % of households unable to afford	F Net backlog need owing to unfitness of property
	Table 5.3	Authors' calculations based on SHCS dataset	Author's calculations based on ARC dataset (2013-14)	$A - (B \times (100+C))$	SHCS affordability proxy (see text)	$D \times E$
1	35,659	12,057	10.193%	22,373	29.006%	6,489
2	48,294	17,639	10.276%	28,842	36.132%	10,421
3	36,567	10,956	12.875%	24,200	36.153%	8,749
4	45,206	15,926	10.786%	27,562	35.995%	9,921
Scotland	165,725	56,578	10.905%	102,977	34.552%	35,581

Accounting for bed-size mismatches

Whilst, as just described, it is assumed that households inadequately housed but who are in the SRS may have their needs met *in situ* it would clearly be unrealistic to expect that there would be a perfect (one-to-one) match between properties arising for let and needs. Of most significance is a likely mismatch between the size profile of the properties that become available and the size profile of the households needing housing. To this could be added an expectation of further mismatches that arise in the normal course of dealing with 'voids' and letting properties.

Previous work we have undertaken on housing market assessment⁷ has revealed that mismatches can arise between the size profile of stock for let and the number of bedrooms required by households on the waiting list. The mismatch manifests itself as properties remaining void for longer than might normally be expected. ARC data for 2013/14 suggests that across all Social Landlords in Scotland there was a total of 1.9 million void days shared between 53,776 re-lets. This translates to an average re-let time of 36 days, or approximately one tenth of a year. This suggests that around 10 per cent of the notional supply of affordable housing in any given year may not in effect be available and should therefore be discounted. Alternative methods used to arrive at this figure (for example, looking at this cumulative difference between supply of and demand for properties at different bed-sizes while allowing for theoretical under-occupation) yield similar proportions. Whilst a relatively crude yardstick, we have applied a mismatch adjustment which serves to add back in a component of needs that were otherwise discounted using the 'in situ' principal described above. This is based on the average re-let time for social rented properties (where known) as a proportion of a year (365 days). This yields an average adjustment across Scotland of approximately 11 per cent, which is broadly consistent with the mismatches we have found in other studies.⁸ This mismatch adjustment is treated explicitly in columns C and D of Table 5.4.

The remaining 'stock' of inadequately housed households is then subject to an affordability test. Given the limitations of relying on income data alone without reference to wider resources and household circumstances, we decided to use an affordability proxy. The SHCS dataset contains a variable that indicates whether a household is in receipt of one of the benefits that would make them eligible for the government's Energy Company Obligation (ECO) scheme.⁹ The rate of eligibility is calculated only for those households in need according to the housing

inadequacy assessment described above. On average, across Scotland, this suggests that 34.6 per cent of households in need may be unable to afford to meet their housing needs in the private sector (owner-occupied or PRS). Column E of Table 5.4 shows how this varies by local authority area type. Column F of the same table shows the effect of applying this affordability proxy to the remainder of households in need. **This suggests that there is a total net backlog of 35,581 households in Scotland that are in properties unsuited to their needs and who cannot afford a market property.**

Backlog homelessness

As noted above it is difficult to estimate with precision the extent of homelessness within the backlog of need. In particular, if total homeless applications are taken as an indication of backlog need there is likely to be an element of double counting between those that are in homes but assessed as overcrowded, which may be as a result of suboptimal sharing arrangements. Additionally, a proportion of homeless cases may have involved (or resulted from) the end of a tenancy in the SRS thereby having a zero effect on net need.

With this in mind two sources of data can be used to give an estimation of the size of the backlog homelessness problem. The first possibility is to look at the Scottish Government's HaTAP (Homelessness and Temporary Accommodation Pressure) method, which provides an estimate of the size of the backlog homelessness problem.¹⁰ This method, however, is driven by some policy assumptions about the proportion of lets that may be used to discharge homelessness duties (this is suggested at 60 per cent) and the level of time allowed to reduce to zero the use of temporary accommodation. As at 31 December 2014, there were 10,218 households in temporary accommodation in Scotland; this level has remained broadly stable at around the 10,000 mark for several years. According to the HaTAP data contained within the CHMA Tool, a total of 17,350 affordable units would be required across Scotland to meet backlog homelessness.

The second, and favoured, possibility is to look at the level of open homelessness cases that local authorities are dealing with. It is necessary to apply a cut-off time limit to the age of cases to account for the fact that many open cases will remain open in perpetuity because applicant circumstances have changed and/or the local authority has lost contact with the applicant (see section four). Three years might be regarded as an appropriate cut-off: 86 per cent of open homelessness applications were originally made within the previous three years,¹¹

7. See, *inter alia*, housing market assessments for Sheffield (2013) and Rotherham (2015).

8. *Ibid.*

9. The ECO scheme is only available to households in the owner occupied or private rented sectors. The eligibility calculation in the SHCS does not consider tenure, however, and therefore applies to all households.

10. The HaTAP method is described in the HNDA Practitioner's Guide and the accompanying HaTAP method note, Scottish Government, June 2014 (available at <http://www.gov.scot/Topics/Built-Environment/Housing/supply-demand/chma/hnda/HaTAP>).

11. Source: dataset provided by Communities Analytical Services Division, Scottish Government.

and it is known anecdotally that in older cases local authorities often lose contact with applicants leading to delays in closing the case. At the level of Scotland as a whole, there were 20,340 open cases as at 31 March 2014. While many homeless applicants spend time in temporary accommodation in the period between their application being processed and the local authority discharging its homelessness duty, not all homeless households do so. At the end of March 2014 around half of open cases (10,281) were in temporary accommodation¹², with the remainder having made other arrangements including remaining in their present circumstances or staying with friends or relatives.

It should be noted in particular that the geographic distribution of the HaTAP estimates differ markedly from the distribution of open homelessness cases. The HaTAP method yields a significantly lower estimate in Type 2 areas and a higher estimate in Type 1 areas. Because of this geographic distribution and the assumption that needs cannot be met by neighbouring local authorities, the lower HaTAP total actually yields a higher overall assessment of need, although the differences are marginal. Substituting the HaTAP estimates for the open homelessness cases increases the total annual affordable housing requirement in Scotland by 54 units.

Table 5.5: Summary of backlog homelessness measures by Council Area type

Area type	A HaTAP estimates (CHMA Tool v2.01)	B Open homelessness cases aged 3 years or less (at 31 March 2014)
Type 1	6,210	5,974
Type 2	2,760	5,045
Type 3	4,280	4,383
Type 4	4,100	4,938
Scotland	17,350	c. 20,340

Total backlog need

The total backlog need is computed as the sum of the households inadequately housed and the estimated homelessness backlog. This is summarised in Table 5.6 below. For Scotland, this gives a total backlog need of 55,921 affordable units. Assuming that policy will aim to deal with the backlog over a period of five years, this yields an annual requirement to deal with total backlog need of 11,184.

Table 5.6: Total backlog need

Area Type	A Backlog of needs arising from inadequate housing	B Backlog of homelessness	C Total backlog need	D Annual requirement to deal with backlog over 5 years
	Table 5.4 column F	Table 5.5 column B	A+B	C÷5
Type 1	6,489	5,974	12,463	2,493
Type 2	10,421	5,045	15,466	3,093
Type 3	8,749	4,383	13,132	2,626
Type 4	9,921	4,938	14,859	2,972
Scotland	35,581	20,340	55,921	11,184

12. Source: HL1 homelessness statistics (table 8a), Scottish Government.

5.5 Estimating newly arising need

The second module of the overall model architecture is aimed at estimating the levels of newly arising affordable housing need each year.

Future additional need for affordable housing is considered to arise from two principle sources:

- **New household formation:** the number of net additional households that there can be expected to be in an area as a result of demographic and economic trends, including the impact of internal (domestically within the UK) and international migration. Of these additional households, a proportion will not be able to afford to purchase or rent a home in the open market.
- **Homelessness:** households may ‘fall into’ homelessness for a range of reasons, sometimes very complex. Such households may or may not already occupy a home (being threatened with homelessness is in the eyes of the system the same thing as being homeless). To some extent, households that are concealed within other households constitute homeless households (although see our earlier discussion of different normative positions on this matter). For these reasons it is necessary to consider the likely additional flow of homeless households in addition to new household formation.

New households

The contribution of new households to newly arising needs rests on two factors: first, the projection of new households and, second, an estimate of what proportion of these new households might be unable to afford to buy or rent privately.

Scenarios governing the estimate of newly arising need

Our calculations in this part of the model draw on outputs from the Scottish Government’s CHMA Tool. Within this tool, there is scope to alter the population projections used as well as assumptions governing future housing market affordability. This allows the construction of a number of scenarios – unlike the backlog of housing need, the estimate of newly arising need is sensitive to key demographic and economic scenarios going forward. We construct scenarios around two dimensions chosen to provide for a range of plausible outcomes within the future housing market:

- **Demographic:** high and low levels of migration. These are specified within the CHMA Tool using the 2012 High Migration and 2012 Low Migration projections.
- **Economic:** high and low levels of house price inflation. These are specified within the CHMA Tool using the ‘Strong recovery’ and ‘Gradual decline’ settings for the house price increases and rent increases parameters.

Table 5.7: Description of scenarios

Scenario number	Scenario name	Input parameters			Likelihood of scenario
		Household projection	House price increases	Rent increases	
0	Core model	2012 Principal projection	Scottish Government LBTT forecast	Scottish Government LBTT forecast	High
1	High migration, strong market recovery	2012 High Migration projection	‘Strong recovery’	‘Strong recovery’	Medium
2	High migration, gradual market decline	2012 High Migration projection	‘Gradual decline’	‘Gradual decline’	Low
3	Low migration, strong market recovery	2012 Low migration projection	‘Strong recovery’	‘Strong recovery’	Low
4	Low migration, gradual market decline	2012 Low migration projection	‘Gradual decline’	‘Gradual decline’	Medium

Table 5.7 summarises the four scenarios (together with the core model) and the input parameters along with an intuitive assessment of their likelihood. Stakeholder interviewees reveal a mixed picture in terms of local perspectives on affordable housing need in the short- to medium-term as well as a degree of uncertainty, particularly in terms of the impact Universal Credit will have on affordable housing demand locally. For example, asked about welfare reform and its impact on housing need and targets one interviewee deemed it:

“ *Very difficult to quantify what the longer term impacts would be...The bedroom tax has caused some impact locally...Of more concern for us are the pending changes from Universal Credit and what this means for us given the Smith Commission* ” (Local authority officer)

However, the majority felt that needs would be greater than that found in their most recent HNDA exercise with a poorer economic climate and welfare reform the most often cited as contributory factors. The following quotes were typical of those views:

“ *Prices have started to come back up a bit but the bottom of the market doesn't seem to have recovered as well. This could be down to a lack of first time buyers and a fall in the incomes of younger people. Prices at market entry level have remained at 2009 levels* ” (Local authority officer)

“ *The balance of the housing requirement between affordable and market housing may have altered due to a worsening economic situation* ” (Local authority officer)

These perspectives would seem to support the need for the range of different estimates based on varying economic and migration scenarios.

Household projections

National Records of Scotland (NRS, formerly General Register Office for Scotland) publishes household projections that are in turn based on population projections. The most recent set of household projections is based on 2012 population estimates. It forecasts an increase in the number of households in Scotland from 2012 to 2037 of about 17 per cent (to 2.78 million households). The population is expected to increase over the same time period by nine per cent (see section four).

The projections include a range of scenarios based on differential assumptions regarding migration. The 'principle' projection is used as the basis of our core model, although we also consider the impact of both the 2012 High Migration and 2012 Low Migration variant projections as part of our scenario testing. According to the principle projection, all local authority areas in Scotland can expect an increase in the number of households with the exceptions of Argyll and Bute, Inverclyde and North Ayrshire. It is important to note that the projection does not assume a linear increase over the 25 year projection period. The most rapid increase in households is expected to occur in the early years, before the rate of increase tapers off. In the principle projection the average change over 25 years is an increase of 15,823 households per annum, while in the first five years of the projection (2012-2017) it is 18,001 per annum.

We have used the 2012 based household projections that have been built into the CHMA Tool (v. 2.01). These are for a slightly different five year period – 2014-2018 inclusive – which results in an average increase in the number of households in Scotland of 18,704 per annum. Table 5.8 presents this by area type based on the classification of Scottish local authorities outlined in section four. It is important to note that the estimates are net additional households, which is the result of processes of both gross household formation and dissolution.

Table 5.8: Summary of 2012-based 'principal' household projection by Council Area type

Area type	A Household projection 2014	B Household projection 2019	C 2012 based Principal Household Projection (2014-2019): net increase in households per annum	D Average % net increase per annum
Type 1	636,489	667,156	6,133	0.96
Type 2	770,821	789,191	3,674	0.48
Type 3	494,411	514,820	4,082	0.83
Type 4	518,419	542,491	4,814	0.93
Scotland	2,420,140	2,513,658	18,704	0.77

The CHMA Tool is also used to derive a set of projection-based estimates of net new households for the high and low migration scenarios. These are based on the High Migration and Low Migration variant projections, and are summarised by area type in Table 5.9. As can be seen, the variant projections lead to a range in the estimate of net household increase from 16,127 to 21,287 per annum. The core model occupies the approximate mid-point of this range.

Table 5.9: Household projection-based estimates of net new households by model scenario

Area type	Net increase in households per annum (source: CHMA Tool v2.01)		
	A Core model	B High migration scenarios (1 and 2)	C Low migration scenarios (3 and 4)
Type 1	6,133	7,017	5,257
Type 2	3,674	4,109	3,228
Type 3	4,082	4,632	3,546
Type 4	4,814	5,529	4,096
Scotland	18,704	21,287	16,127

The CHMA Tool is also used to estimate the proportion of newly arising households that will be unable to afford to buy or rent in the private market. This proportion is applied to the average annual increase in households. The proportion is calculated by the CHMA Tool for each local authority area based on a set of standard assumptions that are applied to a comparison of the distributions of market house prices and market rents with the distribution of income. Income distributions are taken from the Improvement Service's Income Modelling Project, undertaken by Heriot Watt University.¹³

Table 5.11: Proportion of new households unable to afford market housing by model scenario

Area type	New households unable to afford market housing				
	0 Core model	1 High migration, strong market recovery	2 High migration, gradual market decline	3 Low migration, strong market recovery	4 Low migration, gradual market decline
Type 1	2,706	3,755	2,904	2,806	2,195
Type 2	1,530	1,989	1,391	1,547	1,095
Type 3	1,926	2,425	1,859	1,848	1,435
Type 4	2,477	3,472	2,674	2,562	2,002
Scotland	8,639	11,641	8,829	8,763	6,726

The assumptions built into the core model are that:

- Household incomes will grow at a modest level, in line with inflation targets (two per cent).
- The income distribution will remain unchanged (i.e. levels of inequality will remain static).
- House prices will rise at the rate forecast by the Scottish Government in preparation for the introduction of the Land and Buildings Transaction Tax (LBTT) in April 2015 – this is considered to be a more pessimistic outlook than that for the UK as a whole.
- Rents, too, will rise at the LBTT forecast rate.

Table 5.10 provides a summary of the input proportion of additional households that will be unable to afford market housing for the core model as well as two sets of scenarios: one based on strong price inflation; and one based on a decline in prices.

Table 5.10: Proportion of new households unable to afford market housing by model scenario

Area type	% unable to afford		
	A Core model	B Strong price growth scenarios (1 and 3)	C Price decline scenarios (2 and 4)
Type 1	44.1	53.4	41.8
Type 2	41.6	47.9	33.9
Type 3	47.2	52.1	40.5
Type 4	51.4	62.5	48.9
Scotland	46.2	54.3	41.7

13. See <http://www.improvementservice.org.uk/income-modelling-project.html>

The newly arising housing need that is estimated to result from demographic processes is the product of the relevant household projection-based estimate of annual household growth (from Table 5.8) and the relevant proportion of new households unable to afford market housing (from Table 5.10). This calculation is summarised in Table 5.11 for the core model and four scenarios.

The core model suggests that the level of newly arising need resulting from demographic projections is 8,639 households per annum. The sensitivity of the basic estimates of newly arising need to the scenarios can be discerned clearly. The scenario in which a combination of high migration and high house prices might occur leads to a very significant increase in newly arising need: at 11,641 households per annum, this scenario yields 3,002 (or around 35 per cent) more newly arising need than in the core model. Conversely, scenario four (low migration, gradual market decline) yields a newly arising need level which, at 6,726 households per annum, is 1,913 (around 22 per cent) lower than the core model.

Additional newly arising need from homelessness

Once the estimate of demographically-driven newly arising need has been arrived at, the level of newly arising need that will occur as a result of households falling into homelessness must be estimated. As discussed earlier, households that will fall into homelessness are not adequately captured by household projections.

Bramley *et al.* (2006) reported similar difficulties and concluded that homelessness was best treated as an 'overlay' to the assessment of need. If an assessment of newly arising need from homelessness is incorporated numerically into the model, it is clear that there needs to be an approach that considers the possibility that simply extrapolating levels of new homelessness presentations is likely to double-count some households (those that will also be captured within the household projections).

In particular, households that would otherwise form, but may be prevented from doing so by a shortage of affordable housing, may be under-represented by demographic forecasts. Since such forecasts tend to extrapolate past trends, there is an inbuilt assumption that households are adequately housed. Although the backlog calculation is designed to account for that component of inadequate housing that already exists, if market conditions going forward are such that an increasing number of households will face housing difficulties, then demographic forecasts will progressively underrepresent these households that are prevented from forming. Welfare reform is also a key consideration here in the short-term. For example, early evidence from research monitoring the impact of changes to the Local Housing Allowance regime in the PRS suggests reforms have contributed to an increase

in 'hidden homelessness'. This is especially the case for younger single people impacted by the changes to the shared accommodation rate; and for working age households impacted by a range of different welfare reforms (Beatty *et al.*, 2013 – see section six).

Double counting with demographic projections

The analytical problem is that the extent of the potential overlap between household projections and newly arising homelessness is unknown. In arriving at an appropriate adjustment to the model, several possibilities present themselves.

First, the level of homelessness implied by the rate of flows of households assessed as homeless or threatened with homelessness can be examined. Across Scotland in 2014 (January to December) 29,704 such assessments were made.¹⁴ In any given year, the number of case closures is broadly in line with the flow of new assessments. Of these case closures in 2014, 21,719 'discharge of duty' outcomes were recorded.¹⁵ 16,435 recorded outcomes resulted in a social rented tenancy. In effect, this suggests that around 55 per cent of homeless assessments result in a social let.

Second, the HaTAP method discussed in section 5.4 may yield some insight. HaTAP, however, is an estimate of the 'stock' of backlog homelessness rather than a 'flow' of new homeless cases, and so is of itself not an appropriate measure for newly arising need. That said, the policy position internalised within HaTAP – to use 60 per cent of social lets to meet homelessness requirements – provides a useful benchmark.

If a homeless acceptance does not lead to a social let then it is reasonable to assume that the homelessness episode either ended (e.g. the household found a housing solution) or otherwise a temporary outcome (e.g. use of temporary accommodation) was found. Although difficult to estimate directly, the former is possibly related to the potential double counting between homeless cases and 'hidden homelessness' within demographic projections. Only in a small proportion of homelessness cases – around 4 per cent of cases closed in 2013/14 – does the household return to their previous accommodation.¹⁶

Because the proportion of homeless cases that do lead to a social letting appears relatively stable at around 60 per cent, we make the assumption that this is the *de facto* level of need that might newly arise per annum as a result of homelessness. We consequently deflate the level of assessments in 2013/14 by 60 per cent to provide a crude estimate of the contribution of homelessness to newly arising need in each local authority. The flow of need arising from homelessness is as set out in Table 5.12. These are added to the new households derived from the demographic projections to provide the overall estimate of newly arising need for each scenario as set out in Table 5.13.

14. Scottish Government HL1 statistics.

15. Scottish Government HL1 statistics.

16. Scottish Government HL1 statistics (table 15).

Table 5.12: Summary of 2012-based 'principal' household projection by Council Area type

Area type	A Households assessed as homelessness 2013-14	B Assumed flow of new need arising from homelessness (see text)
	Scottish Government HL1	A x 60%
Type 1	9,089	5,453
Type 2	7,678	4,607
Type 3	5,006	3,004
Type 4	7,930	4,758
Scotland	29,703	17,822

The total newly arising need in Scotland is therefore estimated to be in the range of 24,548 to 29,463 households per annum. The core model, which we consider the most likely scenario, yields a **total newly arising need of 26,461 households per annum.**

Table 5.13: Estimate of newly arising need by scenario and local authority type

Area type	0 Core model	1 High migration, strong market recovery	2 High migration, gradual market decline	3 Low migration, strong market recovery	4 Low migration, gradual market decline
	Table 5.12 column B + Table 5.11 column 0	Table 5.12 column B + Table 5.11 column 1	Table 5.12 column B + Table 5.11 column 2	Table 5.12 column B + Table 5.11 column 3	Table 5.12 column B + Table 5.11 column 4
Type 1	8,160	9,209	8,358	8,259	7,649
Type 2	6,137	6,596	5,998	6,154	5,701
Type 3	4,929	5,429	4,863	4,851	4,438
Type 4	7,235	8,230	7,432	7,320	6,760
Scotland	26,461	29,463	26,651	26,584	24,548

5.6. Affordable housing supply

The third module of the overall model architecture is the estimate of future affordable housing supply. This essentially relates to the ability of the existing affordable housing stock to meet needs. The key concept here is **net re-lets**, being the rate at which the existing social rented stock turns over (i.e. manifests itself as a net flow of re-lets available to meet needs). If turnover decreases (for reasons as diverse as, for example, increased longevity, increased population stability, or fewer evictions) this will result in a smaller future supply being available to meet both backlog and arising needs.

Gross requirements model

It is very important to note that **the model presents an assessment of the overall (i.e. gross) requirement for affordable housing**. The model therefore does not consider at this stage the impact of net new supply that might result from changes to the stock of social housing (mainly construction but also demolitions). The exception is that we make a small adjustment to consider the long term legacy impact of the Right to Buy (see below).

In this regard the model's outputs are consistent with our aim of assessing the overall need for affordable housing in Scotland irrespective of current housing supply policies and programmes. It is within the context of this assessment of overall need that discussions may be had on the best way of meeting these needs. For this reason, the next section (section six) considers the capacity of current housing policies and programmes to meet the needs that we identify in this section. A key reason for not integrating an assessment of construction within the model rests on the fact that actual delivery of net new affordable housing is unlikely to mirror recent past trends. If future policy and programme priorities lead to a reduced supply of new affordable housing in the future, then a net needs model would systematically underestimate the level of future affordable need. As discussed in section four, there is reason to expect that the future level of net new affordable construction could fall without a shift in policy direction.

Net re-lets

Irrespective of the foregoing debate about the treatment of new construction, it is the reuse – or re-letting – of the existing social housing stock that is by far the most significant component of the annual supply of affordable housing. Except in circumstances where properties are purposefully taken out of management (e.g. for long term repairs or regeneration, or in expectation of demolition), social landlords seek to re-let properties as soon as possible to minimise 'void' periods and therefore minimise lost rental income. For various reasons discussed earlier in this section, the process can give rise to mismatches between the needs of households and the characteristics of available properties. Certain property archetypes and neighbourhoods may be more difficult to let than others except for those households in

the most parlous situations – although Pawson (2006) noted that by and large choice-based lettings schemes, where they exist, have quickened re-let times. That said, our assumption is generally that the re-let rate constitutes effective supply. It could be argued that lettings difficulties which may in turn lead to landlords deciding to re-model housing units or schemes could reduce the effective supply, but we have taken the decision not to model this. Instead, as we note later in this section, any interpretation of the model must be cognisant that there will be an ongoing need for **additional housing programmes to deal with regeneration and stock renewal** that are over and above affordable housing needs.

Another conceptual issue relating to our treatment of available supply requires clarification. As we noted earlier, the household projections component of the CHMA Tool deals with **net household formation**. This means that the simultaneous disaggregate processes of household formation and dissolution are obscured in the presentation of a net change in households. These two processes have different impacts on affordable housing need and, left uncontrolled, lead to an effective double-counting of some components of supply. This is explained further below.

This section describes how the effective supply of affordable housing through net re-lets was calculated by describing steps taken to:

- Estimate total RSL lets.
- Estimate total LA lets.
- Remove the double-counting of intra-SRS lets.
- Remove the double-counting implied by using projections of net household formation.
- Account for the legacy impact of the RTB on future lettings availability.

Estimating total RSL lets

Re-lets are recorded within ARC datasets and in the SCORE dataset (although this is now discontinued). The SCORE dataset has the advantage of permitting more detailed disaggregation to local authority areas for a wider range of re-let reasons. But it has the disadvantage of not covering local authority housing. It also undercounts RSL lettings owing to the non-participation of some landlords in the SCORE reporting process. Consequently, we use a combination of the ARC and SCORE datasets as follows:

- **Step A1.** For each local authority area, the number of total RSL lets recorded in SCORE is noted.
- **Step A2.** For each RSL, the proportion of stock held in each local authority area is calculated from ARC.
- **Step A3.** For each RSL, the total number of lets recorded in ARC is noted.

- **Step A4.** Applying the result of steps 2 and 3 yields an ARC-based estimate of the total number of RSL lets in each local authority area.
- **Step A5.** The total number of RSL lets from SCORE (step 1) and estimated from ARC (step 4) are compared for each local authority area. For each area the higher of the two figures is taken.

A summary of each stage of this calculation by area type is provided in Table 5.14 below. As is evident, the sum of RSL lets in SCORE is substantially lower than that recorded in ARC (which sums to 28,890 across Scotland). SCORE appears to capture around 75 per cent of the RSL lets in ARC.

Table 5.14: Summary of calculation of total RSL lets by Council Area type

Area type	Step A1	Step A4	Step A5 (total RSL lets)
	SCORE	ARC (see text – Steps A2 and A3)	Maximum of steps A1 and A4
Type 1	4,262	5,244	5,244
Type 2	6,059	6,861	7,029
Type 3	3,181	3,595	3,657
Type 4	8,080	13,190	13,202
Scotland	21,582	28,890	29,132

Removing intra-SRS lets

Steps A1-A5 provide an estimate of the total number of RSL lets for each local authority area (29,132 across Scotland). This includes lets that are made to existing SRS tenants (i.e. direct transfers within the same SRS landlord, or household moves from one SRS landlord to another). It is important for the purposes of the

assessment of net supply to exclude such intra-SRS transfers. One significant limitation of the ARC dataset is that it does not provide information on letting categories that would enable the separation out of intra-SRS lets. Whilst SCORE does, it suffers from the undercount noted above. Consequently, the approach taken was to apply the local authority level proportion of all lets that are intra-SRS lets from SCORE to the estimate of all lets derived from ARC. Steps B1-B5 below were undertaken to do this:

- **Step B1.** For each local authority area, the total number of RSL lets is noted from SCORE (this is the same as at step A1).
- **Step B2.** For each local authority area, the total number of lets made to tenants previously renting from an RSL, a local authority, or a cooperative is noted from SCORE.
- **Step B3.** For each local authority area the proportion of all lets that are intra-SRS lets is computed by dividing the figure from step B2 by the figure from step B1. (Where small cell counts in the SCORE dataset mean that Step B3 is not possible, the Scotland average of 39 per cent is applied. This applies to: East Renfrewshire, Eilean Siar, Midlothian, Orkney Islands and Shetland Islands)
- **Step B4.** The estimate of RSL lets that are intra-SRS lets is calculated for each area by multiplying the proportion from step B3 with the estimate from step A5.
- **Step B5.** Finally, the remainder of RSL lets (those available to tenants from outwith the SRS) is found by subtracting B4 from A5.

Table 5.15 summarises these steps. In Scotland an estimated total of 17,699 lettings were made in 2013/14 to RSL tenants from outwith the SRS, thus constituting a gross supply of social re-lets.

Table 5.15: Summary of calculation of RSL lets to 'new' tenants by Council Area type

Area type	Step B1	Step B2	Step B3	Step B4	Step B5 Estimated RSL lets available to new tenants
	SCORE	SCORE (a small number of LAs are imputed – see text)	B2 ÷ B1	A5 x B3	A5 – B4
Type 1	4,262	1,784	41.86%	2,229	3,015
Type 2	6,059	2,266	37.40%	2,602	4,426
Type 3	3,181	1,302	40.94%	1,485	2,172
Type 4	8,080	3,146	38.93%	5,116	8,086
Scotland	21,582	8,498	39.37%	11,433	17,699

Local authority lets

Having estimated the total number of RSL lets to 'new' tenants (i.e. those outwith the SRS), the same needs to be done for the local authority sector. This again required the combination of data from ARC and estimated proportions derived from SCORE. In this case, SCORE is used to derive (at the local authority level) the proportion of RSL re-lets that are made because the previous tenant moved to a local authority tenancy – this *de facto* yields an estimate of the total number of local authority re-lets that are made to former RSL tenants. Finally, ARC data on re-lets made owing to LA transfers is added on to arrive at an estimate of LA lets to 'new' (non-SRS) households. Steps C1-C6 detail these steps further for each local authority area. A summary of the steps is provided in Table 5.16.

- **Step C1.** The estimated total number of RSL lets is noted (this is taken from step A5).
- **Step C2.** The proportion of RSL lets made because the previous tenant moved to a local authority tenancy is calculated from SCORE.
- **Step C3.** The number of local authority lets that are made to ex-RSL tenants is estimated by multiplying the figure at C1 with the proportion at C2.
- **Step C4.** The number of LA lets that are transfers is noted from the ARC dataset
- **Step C5.** The total number of local authority lets is noted from the ARC dataset.
- **Step C6.** Finally, the total number of LA lets to new tenants is estimated by subtracting both C3 and C4 from C5.

Table 5.16: Summary of calculation of LA lets to 'new' tenants by Council Area type

Area type	Step C1 Estimated total RSL lets	Step C2 RSL lets where previous tenant moved to LA*	Step C3 Estimated LA lets made to ex-RSL tenants	Step C4 Total LA transfers	Step C5 Total LA lets	Step C6 Estimated LA lets available to new tenants
	Step A5	SCORE	C1 x C2	ARC	ARC	C5 – (C3+C4)
Type 1	5,244	12.84	673	1,800	8,159	5,686
Type 2	7,029	10.36	728	2,980	13,191	9,483
Type 3	3,657	9.90	362	1,136	4,666	3,168
Type 4	13,202	2.04	270	600	2,642	1,772
Scotland	29,132	6.98	2,033	6,516	28,658	20,109

*Note: RSL tenants moving to a LA tenancy, where the RSL was in a Council Area where there is no longer a local authority sector are removed from this calculation. See the text below on the assumption about cross-boundary moves.

This estimation procedure involves a significant assumption: when an RSL tenant moves to an LA property, they do so within the same local authority area. Data limitations prevent a full assessment of the impact of these assumptions although it is expected that they will be limited. Evidence from the academic literature points conclusively to the fact that social tenants move shorter distances than average and so have higher rates of migration 'self-containment' (for example, see Jones and Coombes, 2013).

In total, we estimate that 20,109 local authority lets are available to non-SRS tenants per annum based on 2013-14 data.

Removing the net household formation 'double count'

As noted at the start of this section, comparing social lets with estimates of **net** household formation leads to a double-counting of supply. This is because of the way

that SRS dwellings released through the death of a single person living as a household, or a move to an institutional setting, are treated. If all social lets (including those released through the circumstances just mentioned) are assumed to be available to meet need, this ignores the fact that such 'needs' have already been met by virtue of taking net (rather than gross) household formation (i.e. the model 'provides' for a let to meet a need that has also been 'absorbed' by presenting household change in net terms).

To deal with this, two approaches are possible. First, a detailed demographic cohort model could be constructed by utilising age-specific headship rates from within the household projections to estimate the contribution of gross household formation and dissolution to net change. This technically challenging exercise is made more difficult because age categories in key projection tables cannot be read across from one to the other without the need for interpolation and

certain other simplifying assumptions. Nevertheless, interim analysis based on tables provided by NRS suggests that future changes in net household formation will be driven more by gross household dissolution than by gross household formation.¹⁷ This implies that accounting for the impact of household dissolution is more important than gross household formation, which is comparatively constant.

Second, the assessment of net social re-lets (which is the focus of this section) could include an adjustment that removes a proportion of lets consistent with the level of re-lets that are occasioned by death or a move to institutional care. This approach is simpler although, owing to data limitations, necessitates an assumption that the rate of lets made because of the death or move to care of a previous tenant is consistent between the RSL and LA sectors within each Council Area.

The second approach just described offers an appropriate balance between conceptual clarity and practicality and was applied as follows. First, SCORE data was used to calculate the proportion of lets that arise in the RSL sector because the previous tenant died or moved to an institutional setting. On average, 17.7 per cent of lets in Scotland arose in this way in 2013/14. This proportion is applied to the combined total of RSL and LA lettings for each Council Area to yield an estimate of the adjustment required to account for the double-counting described in the foregoing paragraphs. Table 5.17 summarises this approach. The total estimated adjustment required is 6,576 households across Scotland – this is carried forward to the calculation presented later in Table 5.19.

Table 5.17: Estimate of lets arising because of death or a move to institutional care

Area type	A Estimated RSL lets available to new tenants	B Estimated LA lets available to new tenants	C Proportion of lets arising from death or move to institutional care	D Total estimated number of lets arising from death or move to institutional care
	Step B5 (Table 5.14)	Step C6 (Table 5.15)	SCORE sheet 54	(A+B) x C
Type 1	3,015	5,686	16.38	1,426
Type 2	4,426	9,483	17.54	2,440
Type 3	2,172	3,168	17.05	910
Type 4	8,086	1,772	18.25	1,800
Scotland	17,699	20,109	17.39	6,576

Removing the effect of new construction and demolition

The next step is to subtract the number of these new lets that are made as a result of the construction of a new SRS property. This is for the reasons set out earlier – the model is a gross requirements model rather than one that assumes any given rate of new affordable housing construction. Again, ARC data does not provide the relevant direct categorisation of lets to do this. However, it is a relatively straightforward matter to use the estimate of new social rented housing construction as a proxy for this. For the RSL sector, this estimate is taken from the Scottish Government’s Affordable Housing Supply Programme (AHSP) summary data for 2013/14, and for local authority housing the data are taken from the summary of the NB1 returns made to Scottish Government pertaining to the same time period.

Finally, although data on demolitions were collected, we took the decision not to net these off affordable supply.

This was for two reasons. First, it is impossible to tell from the data sources the proportion of demolitions that were of affordable housing. Second, and more significantly, it is appropriate to assume that demolished properties were taken out of management and therefore unavailable to meet needs for some time prior to their demolition. As a result, it is reasonable to expect that any housing needs created by the decision to demolish (e.g. decanted households) will have been captured in the model as homeless/threatened with homelessness acceptances. A slightly more generous specification of the model would seek to remove a proportion of these demolitions from the overall estimate of affordable supply, but we have not done so.

Shared ownership re-sales

To this is added a small allowance for the re-sale of shared ownership properties. There is no direct data on this rate of re-sales – estimates drawn from an English study of shared ownership undertaken by the Cambridge

17. Source: analysis undertaken by Duncan Gray, Shelter Scotland, of NRS age-specific household formation estimates.

Centre of Housing and Planning Research¹⁸ are applied to the known stock of shared ownership housing to arrive at an estimated annual supply. The known stock in 2011 was 10,168 dwellings.¹⁹ Whilst this method makes a very general assumption about the applicability of the CCHPR research to the Scottish context, the effect is numerically very small. In total, we estimate that there are 258 shared ownership re-sales per annum in Scotland, representing approximately 2.5 per cent of the known stock.

Impact of Right-to-Buy

The final adjustment is made to account for the impact of RTB sales. Intuitively, it is tempting to consider all RTBs as stock lost to the SRS irrevocably. However, although the scheme does involve tenure transfer this is to sitting tenants and therefore does not lead immediately to either a new unit of need (the household remains housed), nor a unit taken out of supply (it would not have been otherwise available for letting). That said, in time properties that are bought under the RTB are sold on the open market, either to an owner-occupier or to a landlord. At this point the property becomes lost to the SRS because the household that has moved out has done so without providing a unit for re-let in the SRS. The incoming household purchases in the open market – the model's data on future price and income growth therefore capture this market transaction and will be subject to the model's assumptions about the proportion of households in the future able to buy or rent privately. To capture this time lagged effect, we estimate a small proportion of RTB sales as being effectively lost supply on an annual basis. This is calculated using the rate of turnover of occupied housing at the local authority area level. Table 5.18 summarises this calculation, which results in an

estimated 113 lost affordable units per annum. It is important to note that although the RTB will end in Scotland on 1 August 2016, we would still expect an annual rate of stock lost to the social rented sector in line with the preceding discussion. The estimates at Table 5.6 imply that it will take approximately 20 years (i.e. approximately five per cent per year) for the effect of the RTB to work through the Scottish housing system.

Table 5.18: Summary of RTB sales and modelled consequences on affordable supply

Area type	A Estimated number of RTB sales per annum	B Owner occupier turnover per annum (2011 Census)	C Modelled annual loss of affordable units per annum (A x B)
Type 1	394	5.4%	21
Type 2	711	4.4%	31
Type 3	367	6.7%	25
Type 4	534	6.8%	36
Scotland	2,006	5.7%	113

Total annual net supply of affordable housing

These above final steps yield an estimated average annual effective supply arising from the re-let of SRS units as summarised in Table 5.19.

The total annual net supply of affordable housing Scotland is estimated to be 27,326 dwellings, not including future new build programmes.

Table 5.19: Estimate of lets arising because of death or a move to institutional care

Area type	A Estimated SRS net re-lets	B Estimated shared ownership re-sales	C New RSL construction	D New local authority construction	E Adjustment for net household projections	F Loss of affordable units due to RTB legacy effects	G Total annual net supply of affordable housing
	Steps B5 + C6	Based on CCHPR estimated resale rates (see text)	AHIP	NB1	Table 5.16 Column D	Table 5.17 column C	(A+B)-(C+D+E+F)
Type 1	8,701	85	676	482	1,426	21	6,181
Type 2	13,910	48	734	304	2,440	31	10,448
Type 3	5,340	55	583	177	910	25	3,700
Type 4	9,858	70	918	177	1,800	36	6,997
Scotland	37,808	258	2,911	1,140	6,576	113	27,326

18. Clarke & Heywood (2012) Understanding the Second-Hand Market for Shared Ownership Properties, Cambridge Centre for Housing and Planning Research, University of Cambridge.

19. Source: Census 2011, Table QS403SC.

5.7. Overall assessment of annual affordable housing need

The overall assessment of gross annual affordable housing need in Scotland rests on the sum of backlog housing need (section 5.1) and expected newly arising need (section 5.2), and offsetting the expected supply of social housing from re-lets (section 5.3). It is critically important at this point to account for the geography of affordable need.

Geography of Need

As we have noted elsewhere, any measurement of housing needs is intrinsically dependent on geographic scale. **The more local the analysis, the higher the resulting estimate of need tends to be** because of the assumption that needs arising locally can only be met locally, thus reducing the possibility for balancing ‘deficits’ with ‘surpluses’ over a wider area.

Our model adopts the basic approach that needs will be met locally – that is, within the local authority area. Research justifies this approach. For some very large areas, or those with complex separate market sectors, this will tend to underestimate needs. This may be a particular issue, for example, in Highlands, Orkney, and Fife. For instance, as one interviewee from a rural local authority noted:

“ *A lot of issues relate to the fact that [residents in unsuitable accommodation] have been in that house all their life ...they don't want to move to the centres where there is more care and support* ” (Local authority officer)

Similarly, another respondent noted that there has been much discussion within the Council around the issue that the previous HNDA did not take account of housing that people did not want to move into. In dense conurbations, especially in the Clyde Valley, the propensity for cross-boundary moves will be higher and so the approach will tend towards overestimation of needs. On balance we consider that these effects will be relatively minor and will cancel each other out at the

level of Scotland as a whole, but it is worth bearing in mind when interpreting the model results at the level of area types.

The ‘positive need’ approach is modelled by simply constraining the calculated shortfall for each local authority area to zero or greater. Negative shortfalls are therefore not permitted in the model. This has the biggest implication for Type 2 areas and is largely driven by particularly high estimates of affordable housing supply in comparison to other area types. It makes only a marginal difference to Type 4 areas.

Core model

The core model, which we consider to be based on the most likely demographic and market trends, suggests a positive gross need for 12,014 dwellings per annum over the next five years (Table 5.20). This represents 64.2 per cent of the expected net increase in Scotland, of just under 19,000 households each year, over the next five years.

Table 5.21 shows the basic calculation steps for the core model by area type. All areas have a positive annual affordable requirement, although in the case of area Type 2 this is only marginal. The need arises because of the assumption that neighbouring areas cannot meet each others’ needs: without constraining any local authority estimate to zero, area Type 2 demonstrates a crude surplus in terms of affordable need. However, as discussed earlier, this takes no account of affordable housing needs that arise for other reasons such as stock renewal and regeneration. Area Type 3 is the least affordable in the sense that the annual affordable housing requirement represents nearly all (94.5 per cent) of the projected net increase in households.

Table 5.20: Summary of affordable housing need (core model)

Positive affordable need per annum	12,014
% affordable	64.2%

Table 5.21: Core model outputs

Area type	Backlog	Newly arising	Net affordable supply	Unadjusted annual affordable requirement	Positive annual affordable requirement	Affordable as % of projected net household increase
Type 1	2,493	8,160	6,181	4,471	4,471	72.9
Type 2	3,093	6,137	10,448	-1,217	3,87	10.5
Type 3	2,626	4,929	3,700	3,856	3,856	94.5
Type 4	2,972	7,235	6,997	3,209	3,301	68.6
Scotland	11,184	26,461	27,326	10,319	12,014	64.2

Model scenarios

Table 5.22 summarises the outputs of the affordable needs model for the range of scenarios discussed earlier in Section 5.5 (Table 5.7). The estimate of overall affordable housing need varies from 10,435 to 14,678 per annum. It is clear from the presentation of the scenarios that the models are more sensitive to assumptions about price inflation than they are to assumptions about migration. As a proportion of housing growth, however, the combination of strong price inflation and relatively low levels of net migration will have the greatest proportionate impact on affordable housing need.

Appendix Tables A7-A10 provide details of the key calculation steps for each scenario by local authority area type. Because the scenarios only related to forward demographic and price estimates, it is only the estimate of newly arising need that varies. That said, it

is possible that interactions between newly arising need and affordable supply might arise: future circumstances that have an effect on turnover in the social rented sector, for example, will affect the level of net affordable supply. To give some sense of how this might affect the model, Table 5.23 provides a summary of the sensitivity of the core model to variations in key input parameters. The variations do not have an equal impact on all area types owing to the 'positive need' approach outlined earlier in this section.

The model is most sensitive to the calculated estimates of the annual supply of social re-lets. Varying this input by one per cent results in a change of ± 188 affordable units per annum across Scotland. The model is also similarly sensitive to household projections and data on homelessness cases. For all three of these input variables, particular care has been taken to ensure that the estimates used are robust and balanced.

Table 5.22: Summary of scenarios

Price/rental growth assumption	Indicator	Migration assumption	
		High	Low
Strong recovery	Positive net need	14,678	12,169
	% affordable	69.0	75.5
Gradual decline	Positive net need	10,435	12,286
	% affordable	64.7	57.7

Table 5.23: Summary of sensitivity of outputs to 1% change in key input variables

Variable	Type 1		Type 2		Type 3		Type 4		Scotland	
	%	N	%	N	%	N	%	N	%	N
Properties below standard (SHCS)	±0.3	±12	±3.1	±4	±0.1	±16	±0.8	±13	±0.3	±45
Properties crowded	±0.2	±7	±1.4	±5	±0.3	±11	±0.5	±14	±0.3	±37
Properties unsuitable	±0.1	±5	±0.4	±2	±0.1	±3	±0.2	±5	±0.2	±16
SRS mismatch adjustment	0.0	±1	±0.1	0	±0.1	±1	±0.1	±1	±0.1	±4
% of households unable to afford	±0.3	±13	±1.6	±6	±0.5	±17	±0.6	±18	±0.5	±54
Open homelessness cases	±0.3	±12	±1.0	±4	±0.3	±9	±0.3	±9	±0.3	±33
Household projections: net new household formation	±1.2	±54	±3.4	±13	±1.0	±39	±1.4	±47	±1.3	±153
% unable to afford to buy or rent privately	±0.6	±27	±1.7	±6	±0.5	±19	±0.7	±23	±0.7	±76
Homeless acceptances	±1.2	±55	±4.8	±19	±0.8	±30	±1.3	±42	±1.2	±146
Annual supply of social re-lets	±1.4	±61	±8.1	±31	±1.0	±37	±1.8	±59	±1.6	±188
Shared Ownership re-sales	0.0	±1	0.0	0	±0.1	±1	±0.1	±1	0.0	±2
Annual RTB sales	0.0	0	0.0	0	0.0	0	0.0	0	0.0	±1

5.8. Summary

This chapter has set out the detail of a modelling exercise aimed at producing a robust assessment of the need for affordable housing in Scotland over a period of five years.

The basic model architecture first estimates the level of backlog need, then provides an estimate of likely needs that will arise in the future. Finally, the expected supply of affordable housing, mainly as constituted by re-lets within the social rented sector, is subtracted to yield an estimate of affordable housing need for each local authority area. At this point, negative numbers at the local authority level are reset to zero because of the normative assumption we make that needs, where they arise, should only be met locally. The flow chart at Appendix Figure A1 sets out the detailed steps in the calculation which is undertaken for each local authority area.

The core model represents a ‘mid-point’ scenario in terms of future demographic and house price changes, and is considered the most likely to occur. **The core**

model estimates an affordable housing requirement in Scotland of 12,014 dwellings per annum over five years. The demographic and price scenarios produce a range of 10,435 to 14,678 dwellings.

Housing needs are not distributed equally across Scotland, although we note that it is unreasonable to expect needs arising in one part of the country to be met in another. The level of affordable housing need expressed as a proportion of expected net household formation is highest in aggregate in Type 3 areas (95 per cent) and lowest in aggregate in Type 2 areas (11 per cent). Type 3 areas are those where recent price inflation has been strongest and where self-containment has been lowest (i.e. areas that have attracted a higher number of in-migrants). This combination of factors has arguably led to a worsening of affordability in those areas. In contrast, Type 2 areas have experienced the lowest levels of price inflation and are relatively self-contained (i.e. the market tends to meet more localised demand).

6. Policy and funding implications

6.1. Introduction

The empirical assessment of need presented in section five suggests **an affordable housing requirement in Scotland of approximately 12,000 homes per year over the next five years.**

This represents the requirement for new homes over and above those that normally become available (e.g. re-lets), and is the level of housing needed to also clear the *backlog* of housing need over a five year period.

This figure represents **64 per cent of the overall total housing requirement in Scotland of 18,700 homes per year.** However, it is important to note that this figure, of just less than 19,000 homes a year, does not take account of needs arising from the replacement of older housing stock and regeneration activities. Once these are taken into consideration the figure would be significantly higher and well above current levels of production (at 15,500 per year).²⁰ In this sense, a total requirement of 19,000 should be seen as a starting point for estimating overall housing supply needs in Scotland. The main focus of this report is on affordable housing need rather than the implications for overall housing supply. However, it is crucial to highlight the fact that the scale of increase needed in the *affordable* delivery programme is significantly greater than the scale of increase needed in *overall* supply. That is, increased attention needs to be paid to *what* housing is delivered more so than how much.

The rest of this section discusses the potential policy and funding implications of this new evidence within the broader political landscape. It first sets out the policy context for the delivery of affordable housing in Scotland with a focus on recent developments since the recession of 2007/08. The Scottish Government's Affordable Housing Supply Programme (AHSP) is outlined alongside the differing mechanisms available in delivering affordable housing. It then considers recent changes in terms of the subsidising and prioritisation of affordable housing in Scotland in the context of austerity, welfare reform and constitutional change. Setting the evidence on affordable housing need within that wider context, the final section concludes with a discussion of what these findings mean for current policy in Scotland. It highlights the need for the Scottish Government to raise its ambitions with regards to affordable housing, and briefly outlines what such a programme might look like.

6.2. Affordable Housing in Scotland

Several years on from the financial crisis of 2007/08, issues of housing affordability still remain. Levels of homeownership have declined, as faced with more stringent lending requirements and greater labour market uncertainty, many households struggle to get on, and stay on, the housing ladder. As Table 6.1 below indicates, at the same time as levels of private renting have increased, the social rented sector has contracted. This has fuelled debates about generational housing inequalities and galvanised grass-roots campaigns such as 'Homes for Britain'. Whilst these changes to the housing tenure structure have been experienced by all age groups, young people (under 35) have been hit particularly hard, lending increasing currency to the idea of 'Generation Rent' (McKee, 2012; McKee and Hoolachan, 2015).

Table 6.1: Tenure change in Scotland, 1999-2013

	1999	2006	2013
Owner-occupied	61	66	61
Social Housing	32	25	23
Private Rented	5	8	13
Other	2	2	2

Source: CASD 2014

Population change and the impact of austerity on household incomes have exerted further pressures on the housing sector, which is already operating within a more challenging financial climate in terms of accessing both public and private finance (Gibb 2015; Gibb *et al.*, 2015; CASD, 2014). Consequently, the Scottish Government has been exploring new ways to stretch its constrained budget further.

Social housing remains more prevalent in Scotland than elsewhere in the UK, and the supply of new affordable housing remains a stated priority for the Scottish Government. It has expressed a commitment to deliver at least 30,000 affordable homes, of which at least two-thirds will be for social rent, including 5,000 council houses, during the lifetime of the current Parliament (by 2016). This equates to around 6,000 affordable homes per annum over five years. As the Scottish Government has acknowledged, housing plays a critical role in contributing to wider policy outcomes, including a flourishing economy, tackling poverty, promoting health and well-being, and creating sustainable communities:

“ *Getting housing 'right' would contribute to our purpose of sustainable economic growth to enable all of Scotland to flourish... Accessible, affordable housing and attractive local environments can*

20. <http://www.homesforscotland.com/About-us/Facts-and-figures>

contribute significantly to our wider aims to tackle poverty and health inequalities and to build confidence and capacity in communities. High quality housing and its surrounding environment helps to give our children the best start in life – for example through play areas where they can develop social skills and improve physical health” (Scottish Government 2010, p.2)

The Scottish Government’s (2014d) Affordable Housing Supply Programme (AHSP) aims to deliver a mix of social and other affordable housing. This amounts to an investment of around £1 billion over the three years to March 2016.²¹ Social housing is secure, affordable rented housing provided by local authorities and Registered Social Landlords. Affordable housing is a broader category that includes social housing, but also a plethora of low-cost homeownership and mid-market rent schemes. Grants and loans used to support the delivery of the AHSP include:

- **Grants to Social Landlords:** this is subsidy provided by the Scottish Government to housing associations and local authorities to deliver new social housing. Since 2012/3 these once separate funding streams were merged to allow local authorities to exercise their strategic role in a more flexible way – though they still reflect different subsidy streams (see Table 6.2 below). This does however create a potential tension between councils’ strategic role, and the revival of their development function as builders of council housing. It is therefore easier for councils who no longer retain a landlord function to exercise their strategic role as that tension does not apply.
- **Low Cost Initiative for First Time Buyers (LIFT):** brings together several low-cost homeownership schemes:
 - **Shared Equity:** grants are provided to housing associations to build or buy new homes for sale, with purchasers assuming between a 60 and 80 per cent stake. These schemes are targeted at those on low to moderate incomes. The ‘Open Market’ version of this scheme helps households purchase a 60 to 90 per cent stake in a home sold on the open market.
 - **Shared ownership:** purchasers pay part mortgage and part rent (in the form of an occupancy charge) on a property, in tranches of 25, 50, 75 and 100 per cent. These schemes are normally administered by housing associations. Whilst householders only own a ‘share’ in their property they are nonetheless responsible for all repair and maintenance costs.
 - **Partnership Support for Regeneration (formerly Gro Grants):** grants to developers to build homes for sale in areas with little private housing, in order to address local shortages in the private market. PSR is targeted towards

priority groups, and helps developers bridge the gap between the cost of development and the price the house is subsequently sold for.

■ **Other Funds/Initiatives:**

- **Homeowner’s Support Fund:** provides help to homeowners struggling to repay their mortgage in the form of a Mortgage to Rent or Mortgage to Shared Equity. This allows them to change their housing tenure in order to remain in their home when at risk of repossession.
- **Empty Homes Loan Fund:** to incentivise property-owners to bring empty dwellings back into use as affordable homes. Seventeen projects have been approved for funding totalling £4.5 million. Successful bidders are required to pay back their interest-free loans by 2023/4.
- **Greener Homes Innovation Scheme:** additional funding per unit (£4,000) to encourage higher sustainability standards for emissions and energy use in the social rented sector. It is available as an addition to mainstream resources, and seeks to support innovative and modern approaches to off-site construction.
- **Grants for Mid-Market Rent (MMR):** provided to social landlords non-charitable subsidiaries. MMR is targeted at households on low to moderate incomes, and usually results in a short assured tenancy making it distinctive to social rented housing. It provides rent levels between social and private sector tenancies, making it a more affordable option than the open market.
- **National Housing Trust (NHT):** this model leverages private sector funding and local authority borrowing to build affordable homes for intermediate rent. Limited Liability Partnerships (LLPs) are established to oversee progress, and ensure developers meet agreed standards and timescales. A managing agent is appointed to manage the properties once let, and to oversee any repairs; after 5 to 10 years the properties are sold. Contracts have been signed to build over 1,000 homes across Scotland under this model pioneered by the Scottish Futures Trust.

Although outwith the AHSP the Scottish Government has utilised the Financial Transactions budget they receive from the UK Treasury to support their Help to Buy scheme (Scottish Government 2015b). This allows purchasers to buy a new property from a participating developer (up to value of £250,000), without having to fund the entire purchase price. This is because the Scottish Government takes an equity stake of between 10 and 20 per cent, thus reducing the deposit requirement. The scheme is only supported by specific house builders and mortgage lenders, and at present it is fully subscribed. A popular scheme with the public, it has received over £300 million in funding since 2013.

21. <http://www.gov.scot/Topics/Built-Environment/Housing/investment/ahsp>

The use of powers under Section 75 of the Town and Country Planning (Scotland) Act of 1997, have also been important in meeting affordable housing need. This requires developers to contribute to affordable housing through local planning agreements. Scottish Planning Policy states that:

“ *Plans should identify any expected developer contributions towards delivery of affordable housing... The level of affordable housing required as a contribution within a market site should generally be no more than 25 per cent of the total number of houses.* ” (Scottish Government, 2014b, p.31)

The Housing (Scotland) Act 2014 will further help to retain existing stocks of social housing for future tenants by phasing out the Right to Buy by August 2016: a policy which enables sitting tenants to purchase their home at discounted rates. This is a departure from the English context where the new Conservative UK Government has recently set out plans to extend the Right to Buy to housing associations south of the border. Following Scotland, the Welsh Government also plans to abolish the Right to Buy. This policy divergence between Westminster and the devolved governments reflects different attitudes towards social housing, which in turn implies a different policy direction in terms of wider affordable housing.

Despite the plethora of schemes and initiatives that have been advanced over the past decade, a recent Audit Scotland (2013) report highlighted that it could be 20 years before there are enough new homes to meet current population growth projections. Indeed, Scotland's population has recently risen above its previous 1970s peak. Furthermore, a steady increase in the number of households over the 25 year period from 2012 is anticipated: an estimated addition of 400,000 households to the national total by 2037 (see section 4). The Audit Scotland concerns reflect the failure of housing policy in recent years in terms of meeting the backlog of housing need which therefore creates a further cumulative impact on the number of homes required. Moreover, this estimated 20 year timescale does not take into account those currently living in a property that does not meet their needs:

“ *Scottish Government research in 2005 suggested 8,000 new council and RSL homes were needed each year. This research took place before the recession which is likely to have increased demand for council and RSL housing. Our analysis, based on the 2005 research, suggests that just over 42,000 of the 56,000 council and RSL homes needed since then were built, a shortfall of almost 14,000 homes.* ” (Audit Scotland, 2013, p.9)

As highlighted in section five, this historic backlog is important in understanding the current context and the order of magnitude facing those tasked with meeting affordable housing need at the local and national scale.

6.3. Subsidising Affordable Housing

The capital budget for housing has fallen significantly since 2008, as the recent Audit Scotland report highlighted:

“ *The capital budget for housing fell by 29 per cent, in real terms, from £534 million to 2008/09 to £378 million in 2011/12. Future budgets for housing are set to fall further, to £250 million in 2014/15. In real terms this represents a 53 per cent reduction over six years.* ” (2013, p.7)

The ability of the Scottish Government to invest in affordable housing is constrained by the budget made available by the Westminster Government through the block grant. These financial constraints, which are set to continue, ultimately shape thinking on housing delivery as evident in Scottish Government strategy:

“ *With such significantly restricted finance for housing, we cannot rely on the traditional methods used to finance new homes [...] We must change the way we invest. In future, our policy will be to invest in ways which lever in far more resources from elsewhere, in order to maximise supply for affordable homes.* ” (2011, p.7)

There is much greater emphasis now, than in the past, on social landlords being more 'innovative' in terms of how they deliver new homes in order to make lower levels of public subsidy work. The extent to which maximising private investment in finance and alternative models of funding can really mitigate the reduction in public subsidy is not clear however (Audit Scotland, 2013). Not least because securing private investment is becoming an increasing challenge for RSLs.

Housing Association Grant has been the traditional means of funding the provision of new social housing, meeting approximately two-thirds of the cost. Fiscal spending constraints led to a decrease in public subsidy per house, reflected in the introduction of the Innovation and Investment Fund (IIF) in 2011/12. This effectively required providers to lever the maximum possible amount of funding from other sources. This shift in policy was prompted by research by Bramley *et al.* (2010), which suggested social landlords were 'under-leveraged' in terms of their ability to raise additional private finance for new developments. Consequently, subsidy was reduced to a standard benchmark of £30k per home for local authorities and £40k for housing associations.

Whilst some local authorities could potentially mitigate this reduction through drawing on other funding sources (e.g. council tax receipts), accessing more favourable long-term borrowing rates, and potentially having available land already, housing associations do not have these opportunities open to them. Many therefore deemed new build to be too risky to their business model.

The IIF was criticised by the social housing sector for being too low and inflexible. The Scottish Federation of Housing Associations (SFHA) argued for affordable housing subsidy to return to ‘sustainable levels’ by increasing the amount of subsidy per home. The SFHA report outlined that: ‘subsidies are essential to ensure that homes remain affordable for those in greatest need’ (2013, p.3). Failure to do so means that new supply is dictated not by need, but the extent to which

social landlords can make low levels of grant work. It also exposes RSLs to greater risks, and undermines the affordability of rents to tenants on low incomes, thus compromising other Government policy goals regarding poverty reduction and affordable rents (GWSF, 2013). The IIF coincided with the lowest rate of new build completions in Scotland since 1996 (see section four). In light of these concerns the IIF proved to be a one-off fund and subsidy levels were increased in 2013.

Table 6.2: Core model outputs

Tenure	West Highland, Island Authorities and remote and/or rural Argyll	Other rural	City and urban
RSL social rent – greener*	£72k (3 person equivalent, benchmark)	£63k (3 person equivalent, benchmark)	£62k (3 person equivalent, benchmark)
RSL social rent – other	£68k (3 person equivalent, benchmark)	£59k (3 person equivalent, benchmark)	£58k (3 person equivalent, benchmark)
RSL mid-market rent – greener*	£34k (3 person equivalent, benchmark)		
RSL mid-market rent – other	£30k (3 person equivalent, benchmark)		
Council social rent – greener*	£50k (flat rate benchmark for council projects)		
Council social rent – other	£46k (flat rate benchmark for council projects)		
* To qualify for the higher ‘greener’ subsidy from the Greener Homes Innovation Scheme, the building standards for the new homes must meet Section 7, Silver Level, of the 2011 Building Regulations in respect of both Carbon Dioxide Emissions and Energy for Space Heating.			

Source: Scottish Government (2015)

Current social housing subsidy benchmarks (at August 2015) are set out in Table 6.2 below. These include variations reflecting differences in tenure, energy efficiency standards and geographical location.

The higher rates since 2013 – for example, £46k per home for local authorities and £58k for housing associations in city and urban areas – were welcomed by the sector, though, at the time of writing, the reconvened Subsidy Working Group is considering the case for further increases. The greater costs of development in rural areas are reflected in Table 6.2 with higher rates for West Highland, Island authorities and rural parts of Argyll. Subsidy levels pose a particular challenge for more costly developments such as those in rural areas, but also on contaminated brownfield sites, or relating to specialist adapted housing (CIH, 2013). Many housing associations,

especially the smaller (community-based) organisations, cannot build at relatively low grant rates, and do not wish to raise rents of their current tenants to meet the subsidy gap due to affordability concerns. Furthermore, many stakeholders interviewed expressed concerns related to Universal Credit and the risks posed to housing provider incomes and future business plans. While the higher rates since 2013 reflect a more balanced development risk between the Scottish Government and housing providers (GWSF, 2013; SFHA, 2013), recent trends suggest a clear link between the level of subsidy and new provision. This is an important and ongoing debate given that the cost of building a house is increasing for a variety of reasons, such as lack of available land and the costs of treating brownfield sites, and higher energy efficiency standards in new developments.

6.4. Prioritising Affordable Housing

Investment in affordable housing has to compete with other policy priorities such as health and social care, education, the economy, crime and disorder, transport, the environment and so forth. Housing research has long highlighted the fact that social housing is the ‘wobbly pillar’ (Torgersen, 1987) of the welfare state. It remains to be seen whether the Scottish Government will heed calls from Shelter Scotland (2014) to make this Comprehensive Spending Review (CSR) budget a ‘budget for homes’. Broader processes of constitutional change in the UK mean the Barnett Formula and thus the block grant from Westminster to the Scottish Parliament are under continual scrutiny. This in turn may impact upon how well affordable housing fares in the CSR.

An important aspect of affordable need arises from statutory obligations pertaining to the Homelessness etc. (Scotland) Act 2003, which embodied a political commitment to end homelessness through abolishing the category of ‘priority need’ (McKee and Phillips, 2012). A lack of social housing means many homeless households are however in unsuitable temporary accommodation, or being housed in the private rented sector (PRS). A recent study found that homeless households spend an average of 18 weeks in temporary accommodation, with one-in-four spending over six months waiting for a suitable property (Shelter Scotland, 2015).

The PRS is increasingly the tenure of destination for a large number of households who would have previously been granted access to social housing. The sector has nearly doubled in size over the last decade (Aldridge and Kenaway, 2014) and accounts for an increasing proportion of the Housing Benefit bill in both Scotland and the UK (Beatty *et al.*, 2014a). As rent levels are higher in the private than the social rented sector, the cost to the public purse of housing households in the PRS is greater. Constitutional change is again important here given the Smith Commission’s provisions for adaptations to the housing costs of Universal Credit (Gibb *et al.*, 2015; McKee *et al.*, 2014). As these additional powers are still under negotiation, much of the control over welfare spend remains with Westminster, although the Scottish Government have attempted to mitigate the impact of the Welfare Reform Act 2012 through various support funds (Mooney and Scott, 2015; Muir and McKee, 2015; Spicker, 2015).

Ongoing welfare reform creates further risks for the business plans of social landlords already operating in a difficult economic climate. As Gibb (2015) emphasises, certain reserved matters continue to exert a strong influence on Scottish housing policy. Social landlords have expressed particular concerns over the implementation of Universal Credit which involves the consolidation of several benefits (Jobseekers Allowance, Employment Support Allowance, Housing Benefit, Income Support, Working Tax Credits and Child Tax Credits) into one monthly payment paid directly to tenants. This new regime has been trialled with housing

providers in a number of areas: the Department for Work and Pension’s Direct Payments Demonstration Projects. Evidence from the evaluation of those trials was mixed (Hickman *et al.*, 2014). Arrears did indeed increase but were mitigated to some degree by the intensive efforts of housing associations in terms of rent collection activities. Concerns within the sector also relate to what this change might mean for the role of landlords in terms of debt management, financial support and the collection of arrears. The evaluation concludes that the shift in direct payments to tenants rather than social landlords does have a financial impact on the latter, and may undermine the ability of housing associations to deliver new housing as their surpluses are eroded (Hickman *et al.*, 2014).

Other changes to Housing Benefit pose a real threat to the Scottish Government’s aim of increasing affordable choices for households. The combined effect of changes to Local Housing Allowance and the Shared Accommodation Rate (SAR) (extending the age range at which the SAR applies to single people under 35) means lower-income tenants in the PRS may be priced out of more expensive areas unless they share with strangers in Houses of Multiple Occupation (HMO) properties (see Beatty *et al.*, 2014a, 2014b). Ultimately, reductions in Local Housing Allowance entitlements serve to increase the gap between Housing Benefit payments and market rents thereby adding to affordability pressures for those unable to access social housing. Moreover, the ending and non-renewal of private rental tenancies by landlords is a significant and growing cause of homelessness, which can often be ‘hidden’ (e.g. sofa-surfing) (Beatty *et al.*, 2014b). The growth of the PRS over the last decade therefore has implications for other policy objectives and housing tenures (McKee and Hoolachan, 2015). Significantly, private sector leasing²² arrangements are being increasingly used by local authorities to meet their statutory homelessness obligations and house vulnerable households. Paradoxically therefore, the PRS may be both a cause and a solution to homelessness. This underlines the importance of considering affordable housing need within the broader context of changing tenure patterns in Scotland; specifically the changing balance within the rental sector.

Scotland’s affordable housing policy has changed dramatically over the last 25 years (McKee and Phillips, 2012). In the 1980s the housing landscape was dominated by council housing. More latterly, housing associations became the main providers of new social housing for rent, although development has continued to decline post-2007. The rate of new social sector housing completions fell by 44 per cent between 2010 and 2014 – from 5,700 to 3,200 (see section four). Government public subsidy has also been channelled towards low-cost homeownership (LCHO) schemes, such as LIFT (ODS, 2011). Yet these schemes have been criticised for promoting homeownership to vulnerable groups unable to cope with labour and housing market

22. This is when a private landlord lets their property to a local authority which in turn lets the property to a household on their waiting list deemed in ‘housing need’.

volatility, at the expense of more traditional social rented housing (Newhaven Research and University of Glasgow, 2008; McIntyre and McKee, 2012; McKee, 2010). Similar criticisms have been levelled at MMR. A recent study for the Joseph Rowntree Foundation (JRF), cautions against the encouragement of intermediate renting over traditional social housing (Gibb, MacLennan and Stephens, 2013). While initiatives such as MMR do have a role to play in in the context of a less liberal mortgage lending environment, there is potential for tensions to rise as: ‘financial logic shifts the focus to the mid-market, whereas housing *need* suggests a requirement for social housing’ (Gibb, MacLennan and Stephens, 2013, p.3). While the JRF report highlights innovative ideas for the financing of affordable housing, drawn from international examples, it also acknowledges that volume innovation is inevitably a lengthy process. Given the current level of housing need, housing supply needs to be forthcoming relatively quickly.

MMR undoubtedly has a role to play within an affordable housing programme that offers a range of housing tenure options to suit household needs and preferences, not least as it also enables social landlords to diversify their business models, and the housing products they offer to different client groups. Nonetheless, there is a limited research base from which to evaluate MMR’s potential contribution. Moreover, recent Scottish Government commissioned research highlights a lack of knowledge and awareness of this initiative amongst consumers (McKee *et al.*, forthcoming 2015). This issue of information and awareness is also relevant to LCHO schemes more broadly (Scottish Government, undated; McKee, 2010; McKee *et al.*, forthcoming 2015). Research has also drawn attention to more pragmatic challenges facing LCHO purchasers. In low-demand housing markets it can be difficult for the purchaser to sell and move out of the property, thus further compounding already existing social-spatial housing inequalities (McKee, 2010). Moreover, both policy programmes (MMR and LCHO) neglect the important issue of geography. MMR for example, whilst potentially effective in high demand hot-spots such as Aberdeen, Edinburgh or St Andrews, may not work so well in local authorities where the difference between social and private sector rents is small. That is, where the scope for a ‘mid-market’ is more limited. As one interviewee respondent noted

“ *The product could be exactly the same as social housing but just a higher rent. There might be some pockets within this area where it may work but they’d be the exception rather than the rule.* ”
(Local authority officer)

The current balance of total affordable housing spend between different tenures in Scotland is shown in Table 6.3 below. ‘Social rent’ represents the largest category of spend at almost three-fifths of the total budget of £300 million. Second is ‘affordable homeownership’, which accounted for one fifth of total AHSP expenditure in 2013-14. This category is dominated by shared equity products. MMR dominates the ‘Other affordable

rent’ category accounting for over £27 million of the £29 million total. The ‘Other’ category comes in at 12 per cent and is made up of a range of sub-categories.²³

Table 6.3: AHSP Expenditure by Category for 2013-14

Category	(£m)	%
Social rent	175.333	58
Other affordable rent	29.036	10
Affordable homeownership	59.661	20
Other	36.395	12
Total	300.425	100

Source: Scottish Government, AHSP Annual Out-turn Report, 2013-14.

It is useful to set these figures against the *general* tenure split for affordable housing need that can be produced using the CHMA tool. This is used here for illustrative purposes and it is important to note that the tenure split produced by the CHMA tool has not been subject to detailed modelling or testing, like the core model outputs presented in section five have. Furthermore, the CHMA tool does not provide a tenure split for affordable home ownership: the categories covered are ‘home ownership’, ‘PRS’, ‘social rent’ and ‘below market’ rent. With these caveats in mind, the CHMA tool suggests that around 39 per cent of affordable housing need might be met by ‘below market’ rent, which can be read as MMR, with the rest (61 per cent) met by social housing. If we exclude the ‘affordable home ownership’ and ‘Other’ categories in Table 6.3, a sole focus on social rent and MMR produces an AHSP expenditure split for 2013-14 of 86:14 in favour of social rent. The tenure split produced by the CHMA tool should be treated with a degree of caution for the reasons noted, but it is included here to help encourage debate about *what* type of affordable housing should be delivered in addressing housing need in Scotland.

To summarize, the Scottish housing system has experienced significant change and pressure over the last decade. Young people in particular are finding it difficult to realise their long-term aspirations towards homeownership (Gibb, 2015; McKee and Hoolachan, 2015; McKee, 2015, 2012). In addition, social lettings have become more concentrated amongst the poorest and most vulnerable sections of society, as homeownership is increasingly out of reach for low to moderate income households (Scottish Government, 2011). Demographic and housing market trends point to steady household growth, rising house prices and rents, and a persistent homelessness problem. On the other hand, the social rented sector has contracted and new affordable supply is at historically low levels. Existing social, spatial and generational inequalities raise the important public policy question of what (or who) is affordable housing for in the 21st century? And related to this, how is this vision going to be resourced in an era of constrained fiscal spending?

23. For further details on the breakdown of sub-categories see: <http://www.gov.scot/Resource/0046/00467187.pdf>

6.5. Looking to the Future: policy and funding implications

The Scottish Comprehensive Spending Review is anticipated in 2015/16 with further cuts to public services anticipated. An estimated £70 million reduction in the Scottish budget for 2015/16 was recently announced by HM Treasury as part of continuing austerity measures (BBC News, 2015). Whilst Scottish Ministers may choose to delay the financial impact of the budget reduction until 2016/17, ultimately there are difficult funding decisions on the horizon that may impact on the future of Scotland's Affordable Housing Supply Programme (AHSP). The resourcing of the AHSP has significant implications for the level of affordable housing social landlords can deliver to a particular rate of subsidy, and therefore the extent to which local authorities can meet local need. The development of a pan-Scotland assessment of affordable housing need is therefore important at this juncture to ensure that national targets and public subsidy are sufficient to meet this current and future need.

Research in 2006 by Bramley *et al.* suggested that 8,000 new affordable homes were needed in Scotland each year. Since then, the financial downturn combined with a deep programme of welfare reform in which housing is centrally implicated, has impacted negatively on the housing circumstances of many households. This is especially the case for those on low incomes (Beatty, *et al.*, 2014; McKee and Hoolachan, 2015). The housing market and demographic trends presented in section four illustrate a deteriorating situation in terms of the mismatch between affordable housing need and supply. Based on current house building trends this situation will worsen significantly over time, given current household projections and the continuing growth of Scotland's population. This context has led to the build-up of cumulative need driven by a past failure to meet the *backlog* of housing need. Furthermore, interpretation of the model presented in section five must also acknowledge the ongoing need for additional housing programmes to deal with regeneration and stock renewal – over and above affordable housing *need*. This is a crucial consideration in maintaining an aspirational dimension to Scottish housing policy and in contributing to wider aims around sustainable communities (Scottish Government, 2010).

Consequently, the delivery of affordable housing emerged as a defining policy issue in the recent 2015 General Election campaign, with a cross-party consensus on the need to deliver more affordable homes (Independent, 2015). The First Minister for Scotland, Nicola Sturgeon, repeatedly called for the building of 100,000 new affordable homes across the UK for instance (SNP, 2015). In crude terms, assuming an 8.4 per cent share of that total for Scotland (in line with the share of the UK population in the 2011 Census of Population) this would suggest a need for 8,400 homes per year. Even the Scottish Government's own policy ambitions for Scotland fall short of this figure.

Given housing market and demographic trends in Scotland there is a clear and urgent need to provide new affordable housing, delivered through a range of different products, and targeted at different types of households. Scotland faces an affordable housing requirement of approximately 12,000 homes per year over the next five years. This requirement is almost four times the number of new social sector housing completions in 2014 (3,200). The delivery of 12,000 affordable homes per year would represent a doubling of the Scottish Government's affordable housing target for the current Parliament (6,000 per year). There is clearly the need for a major shift here.

A well-functioning housing system which meets the needs of all households is pivotal to addressing national policy outcomes. Yet current AHSP targets fall well short of the levels of affordable housing required to address the need evidenced here. Moreover, even by crude financial measures current funding commitments are insufficient to realise this target. At current subsidy levels of £58k per home (for an urban RSL property for example) **an affordable housing programme to deliver 12,000 homes per year would cost the Scottish Government around £700m per annum** (£696 million). £58k is the average benchmark for rented programmes. To the extent that the programme is a varied one, drawing in low-cost home ownership and mid-market rent products, then that average will be lower. However, against that is the likelihood that low rates of subsidy would act as a constraint on expanding housing supply, so higher rates are likely to be needed to deliver an overall programme of this scale.

Clearly, addressing housing need in Scotland would require additional public investment over and beyond what is currently committed. Over £1 billion has been allocated from the Scottish Government housing supply budget, to local authority areas across Scotland, for the three years to March 2016. This represents roughly £333m per year; and a shortfall of over £360 million if housing need is to realistically be met. However, a return to previous investment levels would significantly reduce that shortfall. The capital budget for housing in 2008/09 for instance, was £534 million (Audit Scotland, 2013), which would amount to a shortfall of around £160 million. By contrast, the new Forth Road Bridge crossing totalled £1.4 billion in outturn costs (Transport Scotland, Undated), whilst the highly successful Glasgow Commonwealth Games in 2014 had a budget of £575.6 million (CGF, 2014).

This is inescapably a matter of political priorities. Whilst the welfare-safety net is being eroded by austerity measures driven forward by the UK government, the current constitutional settlement does allow the Scottish Government the ability to vary the national rate of income tax. Yet these provisions, afforded by the 1998 and 2012 Scotland Acts, have never been used. The Scottish Government could also choose to *prioritise* affordable housing delivery over other policy domains. This could entail a concerted effort to address the *backlog* of housing need, which would speak to the

evident consensus around the importance of affordable housing provision to Scottish society. Such a commitment would genuinely represent a 'budget for homes' and, crucially, would avert potential housing crises further into the future, based on current projections.

Leaving aside the issues of tax-raising powers and policy prioritisation, there is also more that could be done within existing financial budget plans:

- A further increase in social housing grants is necessary to encourage social landlords to develop new homes, and deliver upon commitments to new affordable housing. Given geographical variations, there is a strong case for continuing to **vary the level of subsidy to target it towards where it is most needed** (e.g. geographically, more difficult sites, specialist housing), as opposed to working with a subsidy level based on the cost of an 'average' development.²⁴ Previously, in 2007, the housing subsidy rate was £76k²⁵ for example. A housing programme aimed at eradicating housing need at this higher level of subsidy, would cost around £912 million.
- If subsidy levels were to be increased, and social landlords were encouraged to return to previous levels of development, significant **time would still need to be allowed to enable the sector to gear up**. It may therefore take some time for the sector to reach a level of capacity where it is in a position to contribute significantly towards the identified housing need target of 12,000 per year. Housing associations in particular have lost specialist development expertise in recent years due to a decline in new building activity. There is therefore a need to **ensure that the construction sector is geared up for a large scale house building programme** which would require investment in appropriate skills and training. This also represents an opportunity to provide large scale Apprenticeship and **employment opportunities in construction and related sectors**.
- The end of the Right to Buy in 2016 provides further incentives for councils to contribute to the **new council house building programme**. More resources could be invested in this programme to support further construction. Resources are also needed to make land available, and support investment in environmental and infrastructure spending within more difficult sites (e.g. contaminated brownfield).
- Given that the annual *affordable* housing requirement represents 64 per cent of the *total* housing requirement in Scotland, there are also **implications for Scottish planning policy**. Current planning policy states that 'the level of affordable housing required as a contribution within a market

site should generally be no more than 25 per cent of the total number of houses' (Scottish Government, 2014b, p.31). This is a discrepancy of almost 40 per cent and raises serious questions about whether such a ceiling can be justified in the current housing market context. There is a need to review this ceiling in terms of its effectiveness in contributing to a sustainable level of affordable housing provision.

- **More spatial targeting of LCHO and MMR products**. These national level policies are not necessarily helpful or effective in all locations – though they do have a clear role to play. More research and a stronger evidence base are required in order to determine levels of demand, and identify areas where they might work most effectively. In areas where house price sales and rental markets are lower than the national median there is currently little evidence of scope or demand for MMR. In such cases investment in traditional social rented housing will be more effective in responding to housing need.
- Whilst the **Help to Buy** scheme has proved popular with the public, the extent to which it is the best way to target scarce resources is questionable. Given that the financial crisis of 2007/08 was underpinned by sub-prime mortgage lending, is it wise to invest so heavily in a scheme that offers a return to the hey-day of the 95 per cent mortgage? As The Economist (2013) has highlighted it puts the **taxpayer at risk** by committing them to shield the financial sector from losses, and drives 'a wedge between' what institutions lend 'and the risks they face'. Moreover, such schemes benefit the house-building and house-selling industry as much as they do aspiring homeowners, so the direction of subsidy arguably needs further thought.
- More attention is needed to the **changing nature of the rental sector**, in the context of a growing PRS. Many low-income households now find themselves in the PRS, due to a lack of available affordable housing. Moreover, it is increasingly being used by local authorities to discharge their statutory homeless obligations. Whilst legislation has been introduced to improve conditions within the sector (e.g. Private Rented Housing Scotland Act 2011, Housing Scotland Act 2014), issues relating to quality, affordability and security nonetheless remain (McKee and Hoolachan, 2015). **A better understanding of the PRS could also help inform of the demand and scope for MMR and LCHO**. The Scottish Government therefore needs to think in an integrated way about the role it imagines for this sector, for it is impossible to think about the future of affordable housing without understanding how it is intertwined with changes in other tenures.

Whilst the affordable housing landscape is more positive in Scotland than elsewhere in the UK (Muir and McKee, 2015), ultimately, delivering such a programme

24. It should be noted that funding can be granted over and above this for certain developments (e.g. rural locations, brownfield sites)

25. <http://www.insidehousing.co.uk/scottish-government-urged-to-increase-grant-rates/6527254.article>

is not cost-free. Although there have been a number of positive innovations in recent years (e.g. use of the Financial Transactions budget, National Housing Trust model) these initiatives are in their relative infancy. They are also fairly small in scale and, while they serve a key function for a particular section of the housing market, cannot provide the level of funding required to meet housing need, especially in the short-term.

This is a critical juncture for Scottish housing policy. In England, emphasis has shifted to the private sector and the encouragement of higher rent intermediate markets. This shifts the focus from low-income households (Gibb, Maclennan and Stephens, 2013) – those in the most acute housing *need*. Recent trends in Scotland however, attest to the fact that delivering a required level of affordable housing to meet housing *need*, ultimately requires political commitment to appropriate

levels of public subsidy. The landscape is indeed a challenging one, but it also represents an opportunity to cement the commitment to affordable housing as a firm pillar of Scottish public policy.

The reason why the Scottish social housing sector is so large and relatively less denigrated compared to elsewhere in the UK, is due to more cross-party and public support for the work of social landlords, and because previous administrations have supported and invested in it. The major policy lever in delivering volume investment in affordable housing remains the level of housing subsidy. If housing need is to be met, and future housing crises are to be averted, then the Scottish Government must build on this legacy in continuing to prioritise affordable housing investment in the forthcoming Comprehensive Spending Review.

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Annex

Table A1: GROS principal household projections (2012) 2012-2037, five year intervals

Local authority district	2012	2017	2022	2027	2032	2037
Aberdeen City	103,587	110,958	117,834	124,729	132,326	140,380
Aberdeenshire	106,156	111,042	116,058	120,709	125,014	128,982
Angus	52,202	53,285	54,257	54,925	55,170	55,098
Argyll Bute	40,965	40,826	40,606	40,037	39,100	38,001
Clackmannanshire	22,861	23,441	23,881	24,083	24,113	24,036
Dumfries & Galloway	68,496	69,430	70,092	70,270	69,896	69,264
Dundee City	68,852	72,181	75,240	78,229	81,471	85,065
East Ayrshire	54,159	55,625	56,814	57,577	58,076	58,364
East Dunbartonshire	43,983	44,556	44,959	45,051	44,917	44,509
East Lothian	43,224	45,569	48,032	50,425	52,720	54,944
East Renfrewshire	37,597	38,652	39,798	40,855	41,745	42,498
Edinburgh, City of	223,671	241,359	258,573	276,377	294,694	313,033
Eilean Siar	12,872	13,136	13,377	13,557	13,612	13,545
Falkirk	68,927	71,545	74,051	76,281	78,376	80,209
Fife	161,168	166,357	171,166	175,391	179,227	182,547
Glasgow City	283,966	298,393	312,107	325,469	339,640	354,006
Highland	103,719	107,320	110,618	113,298	115,260	116,513
Inverclyde	37,379	37,160	36,699	35,953	34,952	33,666
Midlothian	35,692	37,314	38,944	40,458	41,936	43,312
Moray	40,636	41,670	42,505	43,055	43,238	43,245
North Ayrshire	62,475	63,165	63,505	63,339	62,699	61,758
North Lanarkshire	146,648	151,204	155,199	158,371	160,676	162,158
Orkney Islands	9,852	10,311	10,729	11,057	11,298	11,534
Perth Kinross	64,921	68,456	72,292	76,096	79,526	82,869
Renfrewshire	81,316	83,745	85,786	87,231	88,361	89,264
Scottish Borders	52,667	54,003	55,249	56,042	56,418	56,575
Shetland Islands	10,038	10,577	11,054	11,462	11,797	12,043
South Ayrshire	51,470	52,419	53,304	53,898	54,137	54,104
South Lanarkshire	140,294	144,546	148,347	151,247	153,429	155,059
Stirling	37,654	39,713	41,817	43,821	45,568	47,162
W Dunbartonshire	41,987	42,529	42,869	42,917	42,805	42,543
West Lothian	73,738	76,724	79,616	82,208	84,500	86,487
Scotland	2,383,171	2,477,212	2,565,377	2,644,418	2,716,698	2,782,774

Source: NRS

Table A2: Self Containment measures for typology

Local authority district	% internal migration	Ranking*	Distance from median	Above / Below Median
Aberdeen City	67%	24	-3.0%	Below
Aberdeenshire	67%	23	-3.0%	Below
Angus	70%	16	0.0%	Above
Argyll and Bute	62%	26	-7.9%	Below
Clackmannanshire	65%	25	-5.3%	Below
Dumfries and Galloway	76%	3	6.2%	Above
Dundee City	70%	17	0.0%	Below
East Ayrshire	70%	14	0.4%	Above
East Dunbartonshire	56%	31	-14.0%	Below
East Lothian	61%	28	-8.9%	Below
East Renfrewshire	50%	32	-19.9%	Below
Edinburgh, City of	71%	12	0.9%	Above
Eilean Siar	61%	27	-8.9%	Below
Falkirk	74%	5	4.5%	Above
Fife	75%	4	5.1%	Above
Glasgow City	70%	18	-0.1%	Below
Highland	74%	7	4.2%	Above
Inverclyde	79%	1	8.7%	Above
Midlothian	60%	29	-9.6%	Below
Moray	69%	19	-0.5%	Below
North Ayrshire	74%	6	4.3%	Above
North Lanarkshire	77%	2	7.3%	Above
Orkney Islands	69%	20	-0.6%	Below
Perth and Kinross	69%	22	-1.2%	Below
Renfrewshire	70%	15	0.1%	Above
Scottish Borders	69%	21	-0.8%	Below
Shetland Islands	73%	9	3.4%	Above
South Ayrshire	71%	11	1.1%	Above
South Lanarkshire	71%	13	0.6%	Above
Stirling	57%	30	-12.5%	Below
West Dunbartonshire	74%	8	4.2%	Above
West Lothian	72%	10	2.0%	Above

Source: Census, 2011

Table A3: Social housing re-lets per annum

Local authority district	LA Stock	HA stock	Total stock	HA total re-lets	% of HA stock re-let	LA implied re-lets	Total Social Re-lets
Aberdeen City	22,656	4,373	27,029	262	6.0%	1,355	1,616
Aberdeenshire	12,926	4,526	17,452	285	6.3%	814	1,099
Angus	7,783	3,366	11,149	203	6.0%	469	673
Argyll and Bute	0	8,053	8,053	453	5.6%	0	453
Clackmannanshire	4,912	1,914	6,826	122	6.3%	312	433
Dumfries & Galloway	0	13,761	13,761	730	5.3%	0	730
Dundee City	12,989	8,352	21,341	324	3.9%	504	828
East Ayrshire	12,877	3,438	16,315	145	4.2%	545	690
East Dunbartonshire	3,606	1,827	5,433	111*	6.1%	221	332
East Lothian	8,405	2,172	10,577	95*	4.4%	370	466
East Renfrewshire	3,027	1,344	4,371	70*	5.2%	158	228
Edinburgh, City of	20,033	17,032	37,065	564	3.3%	663	1,227
Eilean Siar	0	2,274	2,274	126	5.5%	0	126
Falkirk	16,239	3,404	19,643	203	6.0%	968	1,171
Fife	30,103	8,672	38,775	422	4.9%	1,465	1,887
Glasgow City	0	108,344	108,344	3,314	3.1%	0	3,314
Highland	13,542	6,679	20,221	320	4.8%	649	969
Inverclyde	0	10,415	10,415	172	1.7%	0	172
Midlothian	6,886	3,092	9,978	114	3.7%	254	368
Moray	5,937	2,366	8,303	183	7.7%	458	640
North Ayrshire	13,166	4,682	17,848	240	5.1%	674	914
North Lanarkshire	36,952	9,162	46,114	425	4.6%	1,712	2,137
Orkney Islands	891	665	1,556	60*	9.0%	81	141
Perth & Kinross	7,376	3,703	11,079	161	4.4%	321	482
Renfrewshire	12,728	7,777	20,505	564	7.2%	922	1,486
Scottish Borders	0	11,843	11,843	704	5.9%	0	704
Shetland Islands	1,757	551	2,308	50*	9.0%	158	208
South Ayrshire	8,132	2,117	10,249	135*	6.4%	517	652
South Lanarkshire	25,396	6,453	31,849	338	5.2%	1,330	1,668
Stirling	5,542	1,975	7,517	87*	4.4%	243	329
West Dunbartonshire	11,251	5,856	17,107	318	5.4%	610	928
West Lothian	13,048	7,206	20,254	304	4.2%	550	854
Scotland	318,160	277,394	595,554	11,601	4.2%	16,323	27,924

* denotes imputed figure from national trends

Source: SCORE and authors' own estimates

Table A4: House price statistics used to derive the typology (average house price change)

Local authority district	Average house price Q3 2014-15	Price increase Q3 09-10 to Q3 14-15	RANK Average house price increase	House price 2014, distance from median	Above / Below median
Aberdeen City	218,853	25%	2	68,568	Above
Aberdeenshire	232,331	17%	4	82,046	Above
Angus	152,178	4%	17	1,893	Below
Argyll and Bute	155,557	5%	16	5,272	Above
Clackmannanshire	129,044	-6%	28	-21,241	Below
Dumfries & Galloway	144,863	3%	19	-5,422	Below
Dundee City	126,170	-6%	29	-24,115	Below
East Ayrshire	105,816	-10%	32	-44,469	Below
East Dunbartonshire	213,830	9%	7	63,545	Above
East Lothian	206,189	-2%	25	55,904	Below
East Renfrewshire	227,905	18%	3	77,620	Above
Edinburgh, City of	224,368	7%	9	74,083	Above
Eilean Siar	103,119	13%	6	-47,166	Above
Falkirk	123,180	1%	23	-27,105	Below
Fife	144,047	5%	15	-6,238	Above
Glasgow City	129,710	-5%	27	-20,575	Below
Highland	167,773	7%	10	17,488	Above
Inverclyde	117,390	-10%	31	-32,895	Below
Midlothian	185,416	5%	12	35,131	Above
Moray	153,694	5%	13	3,409	Above
North Ayrshire	124,260	3%	18	-26,025	Below
North Lanarkshire	114,084	1%	21	-36,201	Below
Orkney Islands	129,803	9%	8	-20,482	Above
Perth and Kinross	188,276	6%	11	37,991	Above
Renfrewshire	131,100	2%	20	-19,185	Below
Scottish Borders	179,952	1%	22	29,667	Below
Shetland Islands	159,116	55%	1	8,831	Above
South Ayrshire	148,392	-3%	26	-1,893	Below
South Lanarkshire	132,834	0%	24	-17,451	Below
Stirling	182,500	-6%	30	32,215	Below
West Dunbartonshire	122,224	14%	5	-28,061	Above
West Lothian	153,262	5%	14	2,977	Above

Source: RoS house price data

Table A5: House price changes: Quarter 2 (financial year) changes year on year, from 2009-10 to 2014-15

Local authority district	2009-10 to 2010-11	2010-11 to 2011-12	2011-12 to 2012-13	2012-13 to 2013-14	2013-14 to 2014-15	Year to year average
Aberdeen City	9%	0%	1%	10%	5%	5%
Aberdeenshire	6%	7%	-4%	5%	5%	4%
Angus	1%	3%	-4%	5%	10%	3%
Argyll and Bute	1%	3%	-13%	1%	3%	-1%
Clackmannanshire	7%	-6%	8%	-11%	6%	1%
Dumfries & Galloway	6%	-3%	0%	-1%	0%	0%
Dundee City	1%	-4%	5%	2%	-1%	1%
East Ayrshire	-1%	2%	-11%	6%	2%	-1%
East Dunbartonshire	12%	-2%	8%	-8%	6%	3%
East Lothian	14%	-2%	4%	-4%	5%	3%
East Renfrewshire	6%	-9%	3%	0%	9%	2%
Edinburgh, City of	11%	-2%	1%	-2%	6%	3%
Eilean Siar	0%	-2%	4%	2%	-1%	1%
Falkirk	2%	2%	-7%	1%	12%	2%
Fife	3%	-1%	-7%	2%	5%	0%
Glasgow City	3%	-3%	-5%	0%	5%	0%
Highland	4%	1%	-5%	1%	7%	2%
Inverclyde	24%	-9%	1%	-3%	5%	4%
Midlothian	1%	5%	-4%	2%	2%	1%
Moray	-3%	3%	7%	-8%	9%	2%
North Ayrshire	10%	5%	-10%	-2%	8%	2%
North Lanarkshire	2%	2%	-1%	-3%	6%	1%
Orkney Islands	1%	-1%	20%	-10%	3%	3%
Perth and Kinross	-5%	3%	3%	-4%*	8%	1%
Renfrewshire	10%	-5%	-8%	5%	17%	4%
Scottish Borders	11%	-4%	-7%	7%	-6%	0%
Shetland Islands	4%	3%	-5%	25%	-9%	4%
South Ayrshire	7%	-2%	-6%	6%	-4%	0%
South Lanarkshire	2%	2%	-5%	-5%	4%	0%
Stirling	4%	8%	-7%	-2%	11%	3%
West Dunbartonshire	5%	8%	-6%	-1%	5%	2%
West Lothian	7%	0%	-7%	4%	6%	2%

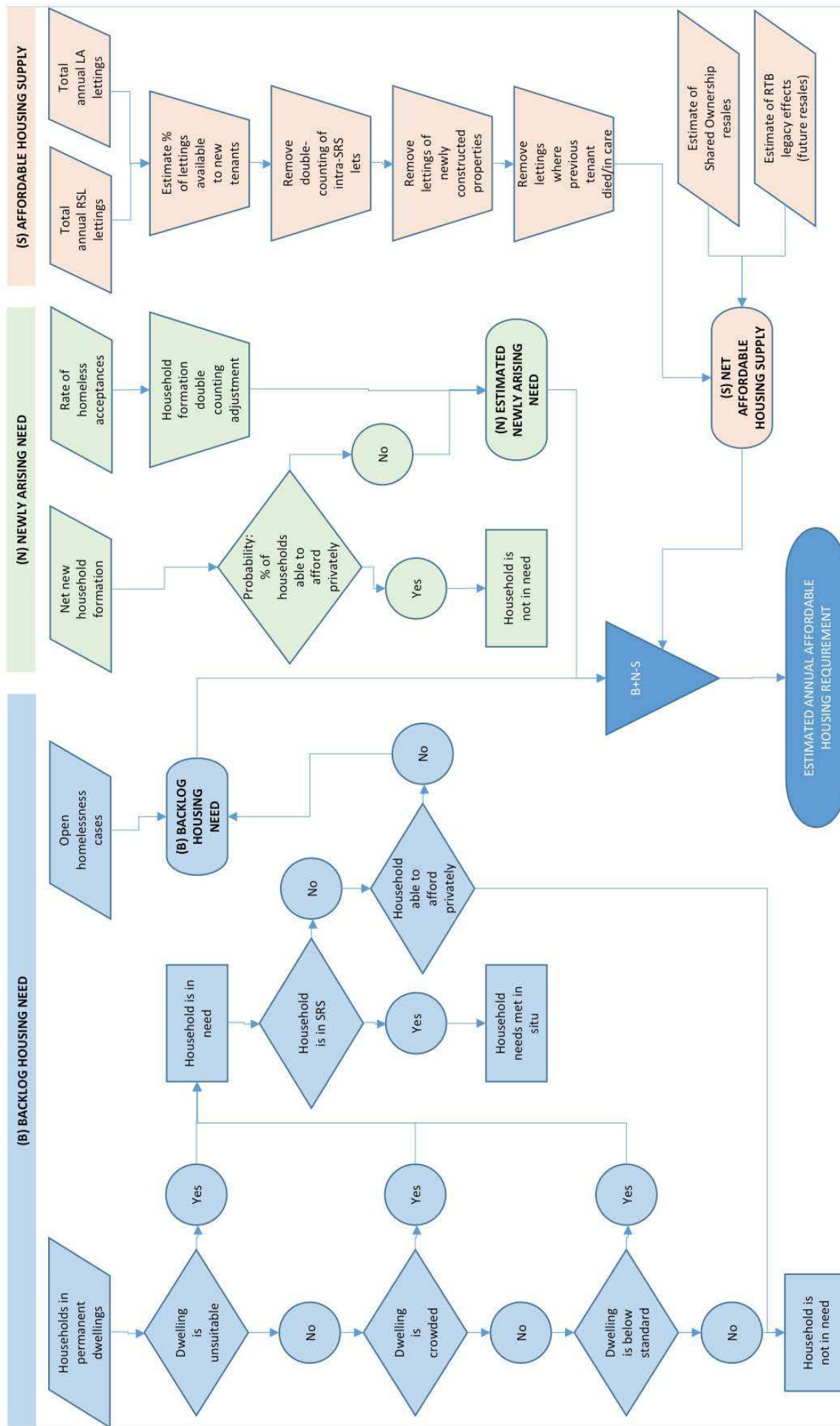
Source: Calculated from Registers of Scotland data.

Table A6: All Housing Stock Demolitions

Local authority district	2009-10	2010-11	2011-12	2012-13	2013-14
Aberdeen City	36	0	0	1	0
Aberdeenshire	37	61	72	30	72
Angus	24	0	0	52	2
Argyll & Bute	0	0	66	17	5
Clackmannanshire	2	0	2	0	1
Dumfries & Galloway	0	0	0	0	0
Dundee City	198	816	22	692	129
East Ayrshire	40	23	51	9	82
East Dunbartonshire	163	189	223	101	76
East Lothian	3	16	0	3	2
East Renfrewshire	5	5	4	3	4
Edinburgh, City of	559	327	482	303	62
Eilean Siar	0	2	9	0	3
Falkirk	63	50	0	23	0
Fife	195	12	376	0	0
Glasgow City	1,534	1,307	889	889	889
Highland	23	13	5	43	38
Inverclyde	253	787	508	1,083	236
Midlothian	0	20	0	0	0
Moray	0	0	0	0	0
North Ayrshire	18	93	46	73	113
North Lanarkshire	140	160	0	0	18
Orkney	2	0	0	21	2
Perth & Kinross	51	82	67	24	20
Renfrewshire	271	126	12	78	38
Scottish Borders, The	9	3	1	4	5
Shetland	0	0	0	8	0
South Ayrshire	0	0	0	0	96
South Lanarkshire	184	169	12	123	55
Stirling	149	133	33	37	17
West Dunbartonshire	364	81	43	101	0
West Lothian	0	63	2	1	90
Scotland	4,323	4,538	2,925	3,719	2,055

Source: Scottish Government (based on local authority returns)

Figure A1: Flow chart of basic calculation steps in model



Appendix tables: Different model scenarios – migration and economic growth

Table A7: Scenario 1 – High migration, strong recovery

Area type	Backlog	Newly arising	Net affordable supply	Unadjusted annual affordable requirement	Positive annual affordable requirement	Affordable as % of projected net household increase
Type 1	2,493	9,209	6,181	5,520	5,520	78.7
Type 2	3,093	6,596	10,448	-759	575	14.0
Type 3	2,626	5,429	3,700	4,356	4,356	94.0
Type 4	2,972	8,230	6,997	4,204	4,227	76.5
Scotland	11,184	29,463	27,326	13,321	14,678	69.0

Table A8: Scenario 2 – High migration, gradual decline

Area type	Backlog	Newly arising	Net affordable supply	Unadjusted annual affordable requirement	Positive annual affordable requirement	Affordable as % of projected net household increase
Type 1	2,493	8,358	6,181	4,669	4,669	66.5
Type 2	3,093	5,998	10,448	-1,356	330	8.0
Type 3	2,626	4,863	3,700	3,789	3,789	81.8
Type 4	2,972	7,432	6,997	3,407	3,497	63.2
Scotland	11,184	26,651	27,326	10,509	12,286	57.7

Table A9: Scenario 3 – Low migration, strong recovery

Area type	Backlog	Newly arising	Net affordable supply	Unadjusted annual affordable requirement	Positive annual affordable requirement	Affordable as % of projected net household increase
Type 1	2,493	8,259	6,181	4,571	4,571	86.9
Type 2	3,093	6,154	10,448	-1,201	424	13.1
Type 3	2,626	4,851	3,700	3,778	3,778	106.5
Type 4	2,972	7,320	6,997	3,294	3,396	82.9
Scotland	11,184	26,584	27,326	10,443	12,169	75.5

Table A10: Scenario 4 – Low migration, gradual decline

Area type	Backlog	Newly arising	Net affordable supply	Unadjusted annual affordable requirement	Positive annual affordable requirement	Affordable as % of projected net household increase
Type 1	2,493	7,649	6,181	3,960	3,960	75.3
Type 2	3,093	5,701	10,448	-1,653	233	7.2
Type 3	2,626	4,438	3,700	3,365	3,365	94.9
Type 4	2,972	6,760	6,997	2,734	2,877	70.2
Scotland	11,184	24,548	27,326	8,406	10,435	64.7

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Shelter Scotland
Scotiabank House
6 South Charlotte Street
Edinburgh
EH2 4AW

0300 330 1234
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