



**UK COLLABORATIVE
CENTRE FOR
HOUSING EVIDENCE**

Housing wealth inequalities in Scotland

An evidence review

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1. Introduction

Recent debates on economic policy have drawn attention to the distribution of wealth and its impact on living standards across the life course and beyond (Atkinson 2015; Piketty 2014). In majority home ownership systems like Scotland, housing is both an important and a dynamic component of wealth. The expansion of home ownership, allied to a sustained rise in house prices ahead of incomes, served for many years to reduce wealth inequality across the UK, but since the mid-2000s this effect has reversed, contributing to greater inequality.

As a result, there is growing awareness of housing wealth inequalities within and between generations, across social classes, local areas and between regions (Bell and D'Arcy 2018; Maclennan et al. 2018; Maclennan and Miao 2017). Such inequalities matter for a number of reasons. For example:

- There is evidence that housing assets and their accumulation are of growing importance to household wealth and welfare spending decision-making, and also constrained choices, with declining rates of home ownership signalling reduced opportunity and more binding constraints preventing full participation in society (Bell and D'Arcy 2018; Soaita and Searle 2018);
- Access to home ownership is now more strongly predicated on parental property wealth, with implications for social mobility (Bell and D'Arcy 2018; Clark and Wood 2018);
- Housing wealth generates more housing wealth in other ways. For example, buy-to-let (BTL) landlordism has increased dramatically in Scotland over the last 20 years, often facilitated by the re-mortgaging of existing property. This reduces the supply of entry level homes (and may drive up prices in this market segment);
- Maclennan, et al. (2018) highlights how housing price and wealth effects can potentially reduce productivity growth. Contention remains about wider connections between housing wealth gains and more macro impacts (O'Sullivan and Gibb 2012);
- Differential levels and rates of house price change creates spatial inequalities, for instance, if we contrast both differences across UK regions and within Scotland (Chowdhury and Maclennan 2014; Soaita and Searle 2018). These are also signals for more speculative and gentrifying behaviours which in turn may exacerbate housing wealth inequalities.

The policy world, in consequence, is increasingly alert to housing wealth inequalities. For example, within its National Performance Framework, under the housing and regeneration objectives of a *well-functioning housing system*, the Scottish Government is seeking long term stable house prices and to reduce dependence on housing as an asset (Scottish Government 2018 p.12). With much of the housing wealth accumulated in recent years the product of unearned windfall gains rather than active savings behaviour, there is a growing sense that such assets should be drawn down, for example, to fund the costs of social care. In addition, there is an increasing appetite for policy action to temper the impacts of housing wealth inequalities through, for example, through property taxation reform.

Research questions

The Commission's research brief requires an investigation of housing wealth inequalities in Scotland, highlighting the impact these have on the lives of Scottish people, and discussing potential policy responses. This involves answering four research questions:

1. What do we mean by housing wealth?
2. What does housing wealth look like in Scotland today, and why?
3. What are the wider impacts of housing wealth inequalities in Scotland today?
4. How could policy respond to housing wealth inequalities?

The approach taken to the research project is to divide it into two separate but closely aligned reports. The current element, carried out by the UK Collaborative Centre for Housing Evidence (CaCHE) and Policy Scotland, is an evidence review of Scottish, UK and international studies of related housing research that speaks to relevant aspects of housing wealth inequality in Scotland. The second report is a quantitative empirical analysis of housing wealth inequality, carried out by the Resolution Foundation.

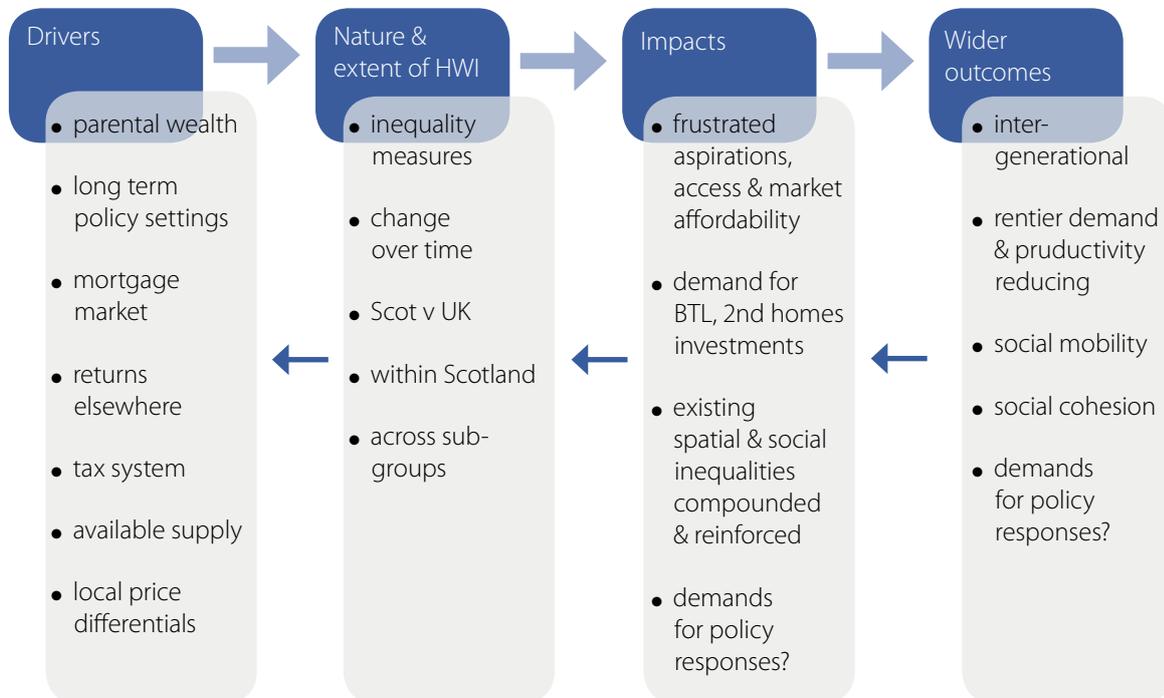
The evidence review, broadly based on the CaCHE model used in previous studies, provides answers to research question 1, 3 and 4 above, as well as help shape the data analysis exercise by suggesting questions to model. The review is primarily Scottish and UK-oriented but includes relevant international material to benchmark the Scottish/UK situation, illustrate and inform sub-national level analysis and consider the policy response dimensions.

Integrating discussion: key themes

To shape our integrative discussion of the many and varied arguments and themes that have emerged in the course of this evidence review, we have set out below a simple conceptual framework to support the analysis. Figure 1 captures the main elements of wealth inequality processes within the housing system (figure 1). Acknowledging the necessary degree of abstraction required to capture several inter-related relationships, we can distinguish between **drivers** of housing wealth inequality (HWI), the observed **nature and extent** of those inequalities, the housing system **impacts** of significant and continuing inequalities and the wider economic and social **outcomes** associated with that inequality. In each substantive section of the report we organise the key findings at the beginning of each section in terms of these highlighted key elements of the diagram below (each element is explained in more detail below).

We expect this wealth process to be recursive and that these impacts and outcomes will over time affect the drivers of inequality. The diagram also identifies possible policy response opportunities and also the scope to drill down into the sub-groups and places within Scotland likely to be affected disproportionately by HWI. The diagram is a descriptive or classification-based approach rather than a fully-developed model but nonetheless it can help us organise our evidence review and suggest hypotheses or other areas for empirical examination and policy analysis. Below the diagram provides some illustrations of key facts under each heading.

Figure 1: Housing Wealth Inequalities



Drivers of HWI include parental (and wider family) wealth that can be recycled to younger generations. Wealth inequality is also arguably a function of major, long-term policy settings favouring home ownership and the maintenance of rising real house prices. These settings include the evolution of mortgage market policies and practices (including support for buy to let and, more recently, help to buy), heightened by the tightening of its regulations, particularly for entrants to home ownership, since 2008. Other policy drivers include the wider tax policy stance on home ownership (though this is admittedly inconsistent in important ways as regards the light/zero taxation of home ownership investment returns, BTL taxation, council taxation, and the use of stamp duty/land buildings transactions tax, etc.). A further important driver is the housing market itself - the nature and cost of the available housing stock and patterns over time of local house price differentials.

The *nature and extent* of HWI is multi-dimensional but can involve looking at housing or property wealth as a component of total wealth and how this changes (along with measures of its relative inequality). A natural comparison is with other parts of the UK and internationally. Also, we think that there are likely to be significant variations within Scotland reflecting the differential impacts of the above drivers of inequality. Different ways of capturing inequality should be employed recognising that no single measure is completely adequate (e.g. simple Gini coefficients and Lorenz curves): this is particularly important when we drill down into the extent of HWI for specific sub-groups of interest.

HWI accumulates over time and *impacts* on people and places in different ways. Within the housing system, we might expect to see a frustration of choices as access and affordability inhibit tenure and locational choices in a way they previously did not in the past (again, this has a striking distributional profile impacting disproportionately on specific groups). These impacts can compound and reinforce existing social and spatial inequalities, in part also because they permit the wealthy to increase their property portfolios as landlords and second home owners, as well as primary residences (and this is self-reinforcing to the extent that housing and land perform strongly as asset returns over time).

There are also wider socio-economic *outcomes* from growing HWI. Inequality, especially where it is apparently inexorable, challenges social cohesion and social mobility. HWI contributes significantly to unaffordable pressured housing markets which can in turn damage the long-term productivity prospects of regional (and national) economies. At a more individual and family level, as well as more broadly, the locking-out of younger cohorts, those who never could own housing and/or who simply lived in the wrong place (from an asset appreciation perspective), will generate unfolding and continuing inter-generational inequalities. Both these impacts and outcomes of HWI generate more or less credible, feasible, radical or salient demands for corrective policy responses.

The organisation of the evidence review is around the following topics. We begin (section 2) by briefly setting down the methods and research process adopted to generate the evidence review. This is then followed (section 3) by a brief context setting section which provides a flavour of what is known about housing wealth inequality in Scotland and the UK, quantitatively, prior to the current research. Section 4 considers the multiple links between housing wealth and economic questions. Section 5 draws on a range of recent international comparative evidence on housing wealth inequality. Section 6 looks at the health and well-being dimensions of housing wealth inequality. In section 7, the focus is on the housing wealth role in families' own provision of welfare, commonly referred to as 'asset-based welfare'. Section 8 focuses on inter-generational inequalities, including social mobility. Section 9 shifts the focus to private landlords and the rental market. The penultimate section draws together recent writing on policy responses regarding wealth and specifically housing wealth inequality. Section 11 brings the report to a close with an integrating discussion and wider conclusions.

This report is one of three associated with this project, including a report by the Resolution Foundation and a joint summary paper. All publications are all available on the [Poverty and Inequality Commission](#) website. A short summary document of this evidence review is also available on the [UK Collaborative Centre for Housing Evidence](#) website.

2. Methods and research process

Key points

- Systematic literature searches were conducted in SCOPUS and Web of Science, with 374 unique references found for our geographical and timeline focus. Additional hand-searches added 55 pieces, resulting in a sample of 429 references.
- Upon team screening for thematic relevance and quality, 132 references were included in this review for analysis.

The pilot stage

Balancing the time constraints of the project with the objective of better understanding the social and economic consequences of the distribution of housing wealth in Scotland, we took three methodological approaches from the outset: a literature search restricted to two of the largest on-line bibliographical databases, namely SCOPUS and Web of Science; a publishing timeline restricted to the period 2008-2019; and, the geographical coverage of the review restricted to the EU countries, Australia, New Zealand, the USA and Canada. Drawing on CaCHE's approach to reviewing, we explored the consequences of these inclusion/exclusion parameters through a pilot stage.

First, using the keywords 'housing wealth' and 'asset-based welfare' pilot searches were conducted in SCOPUS *without* geographical and timeline restrictions (in: English language; titles, abstracts and keywords only; date: 11 February 2019). Overall, 483 references were found, the earliest published in 1986. Temporal/geographical patterns validated our focus:

- *Publication timeline*: a focus on the period 2008-2019 reduces the sample size by only 20%, since the majority of the 483 references were published after 2000 (n=446) and indeed after 2008 (n=387).
- *Country coverage*: a focus on Anglo-Saxon states and EU countries reduces the sample size by less than 10%. The UK and US were by far the most represented countries, followed by Australia, the Netherlands, China, Germany and Canada. These seven countries totalled 87% to 89% of the sample, whether we consider the cut date of 1986, 2000 or 2008.

Hence, the temporal and geographical scope of the evidence review includes most of the existing literature on housing wealth. By broad disciplinary coverage, about one third of references come from economics, another third from other social sciences, and one third miscellaneous subjects (e.g., environmental, health, psychological and engineering studies).

Second, drawing on our prior knowledge of the research field, we piloted a set of separate keywords to explore further into the value and relevance of the references generated. We noted that (see Table 1 in the Appendix section):

- "home ownership" as a keyword covers a much larger research field than "housing wealth", hence we decided against using it.
- "Asset-based welfare" and "landlordism" returned few references not already included within "housing wealth". After examining some titles, we decided to more finely tune our final search of this sub-set of papers by focusing on asset-based welfare studies exclusive to housing and to landlordism exclusive to the private rented sector.

The final reference sample

We performed literature searches in SCOPUS and Web of Science, looking for “housing wealth”; “asset-based welfare” and “housing”; and “landlordism” and “private” renting in the title, abstract and keywords of articles, books, book chapters and reviews published since 2008 and covering the geography of the Anglo-Saxon and EU countries. After excluding 26 articles published in highly specialised scientific fields,¹ 313 references were found via SCOPUS and 257 via Web of Science. Exported in an EndNote database, the sample of references was reduced from 570 to 374 by excluding 94 duplicates and 32 references outside the remit of our parameters.²

To check thematic relevance and methodological/data quality, and to reduce the sample to a manageable size for the timeframe of the project, the team rated all references for relevance and final inclusion. While recognising the difficulty of reaching a final agreed set of pieces to be included in the review, we are content with the pragmatic compromises made having gone through the process. For instance, we excluded much of the literature generated on the purely macroeconomic consumption effects of housing wealth (section 5 indicates what was included); most non-empirical studies; and some repetitive output (e.g. similar papers published in different journals). Conversely, we focused on key authors in the field and outputs from larger projects focusing on housing wealth inequality (e.g. HOWCOME, Mind the Housing Wealth Gap, HOUWEL).

The team have all contributed to this literature personally and consequently we recognised that there was an additional opportunity here to draw on our own experience to augment the search process by hand-searched material, particularly in the form of books and grey material from outside of the UK. This made a small but important contribution to the overall review, as did snowballing for the references included in the review material we worked with. The final sample consists of 429 references.

Analysis and reporting

A core set of 43 references (see Box 1 in the Appendix section) was distributed across the team members for pilot coding and relevant text extraction. We coded references’ aim; research questions and/or hypotheses; theoretical context; policy context; data and method; key findings; key conclusions; and policy recommendations. When possible, we coded explicit drivers and outcomes of housing wealth inequality, though understanding these requires synthesis across themes and papers. Paper distribution, coding, analysis and writing up proceeded thereafter with different team members focusing on separate strands. Paper distribution within the team also followed thematic streams. The subsequent analysis and reporting was also highly collaborative; in total we have reviewed 132 references.

¹ Dentistry, earth and planetary sciences, engineering and mathematics, cardiovascular system, endocrinology metabolism, neurology and psychoanalysis.

² Outside of our geographical focus (n=23) and temporal frame (n=1); book reviews (n=7); and language other than English (n=1)

3. Background quantitative evidence

Key points

- Wealth in the UK and in Scotland has increased sharply relative to income over recent decades and the absolute gap between the richest and poorest has expanded considerably across different measures of inequality. Housing wealth inequality is nearly twice as unequally distributed as income in Scotland and Britain.
- The importance of owning housing assets cannot be over-estimated (rising home ownership rates initially moderated inequality as home ownership grew).
- Wealth inequality can also be assessed against other important criteria (race, income/class, region, age). Inequality across different age bands is growing and changing (younger households are no longer on the wealth escalator as they were in earlier generations) but is arguably no less significant than inequalities within age cohorts. There are strong cyclical effects as regions pull away in terms of wealth inequality and then converge later on (as a result of cycles in house price growth).
- The evidence also suggests the importance of compounding cumulative change reinforcing and widening inequalities (e.g. segregating and increasing spatial inequality through house price effects on school catchment areas).
- Because of the patterns and trajectory of house prices and patterns of ownership of property, there are considerable implied variations in housing wealth within Scotland.

Contemporary evidence on housing/property wealth inequality in Scotland

The Department of Communities and Local Government (DCLG 2010) published a series of papers on housing wealth inequality (HWI) based on a seminar they held involving contributors such as Chris Hamnett, Peter Williams, Gwilym Pryce and Steve Machin. They identified substantial HWI, particular in terms of age and region, income, social class and ethnicity but principally in terms of owning housing or not. The rise in HWI is in large part attributed to the effects of long term or cumulative rising real (or after inflation) house prices. Of course, local housing markets perform differently in terms of these price and wealth impacts but we can nonetheless think of the redistributive effect of HWI fundamentally as an inter-generational transfer from future home owners, who will have to pay more for their housing, to present owners who get the benefit of the largely passive increase in property values when they sell or release equity.

The DCLG (2010) papers noted negative impacts in terms of access to education, racial segregation and the spatial concentration of poverty (e.g. school performance can become capitalised into higher local house prices making it difficult for low income households to take advantage of the best schools). This may also help explain declining social mobility in recent decades. However, the DCLG papers also suggest that, historically, housing wealth has contributed to wealth equalisation as a result of the increase in home ownership and because the rising real value of housing created a large asset owning class and thus reduced wealth inequality between the very rich and those on moderate incomes. It was also recognised however that on-going increases in house prices across the UK help explain the widening gap in wealth between those who own homes and those who do not.

Hills and Glennerster (2013) note that by 2005, UK personal wealth was four times the size of GDP (as this excludes pension rights, it is a significant underestimate); this ratio has doubled since the 1950s and 1960s. Gaps in wealth have also widened in absolute terms. One summary measure of this widening

is the 90:10 ratio, which compares average wealth holdings in the top tenth with the bottom tenth of the wealth distribution. For 2008-10 the ratio stood at 77:1 (whereas for income, the comparable figure was only 4:1). Total wealth held by the top 10% was 850 times that of the lowest tenth.

Hills and Glennerster (2013) report a strong age effect on wealth holdings, with median wealth highest in the 55-64 groups and lowest in the 25-34 age band but with accumulated wealth being used up or spent by the oldest groups. They also found large inequalities within age bands. Hills and Glennerster show that wealth inequality fell considerably between the 1920s and 1970s, followed by a period of relative stability until the mid-1990s and the onset of the economic crisis in 2007-08. The long house price boom to 2008 meant that housing wealth grew proportionately faster than financial wealth, increasing overall inequality.

According to Hills and Glennerster (2013 p.74) by the mid-2000s, estates left annually (other than to spouses) were valued at approximately 4% of national income. The distribution of these estates is, however, highly unequal: half of the value of estates went to just 2% of the whole population in the 10 years up to 2005. McKnight and Karagiannaki (2013) also report evidence of important sustained advantages for children from wealthier family backgrounds and for those who are able to own and grow assets earlier as adults. Higher levels of parental wealth and also financial asset holdings (including housing) lead to differentially better outcomes in education, employment and health, outcomes which encourage wealth acquisition for the advantaged young adults, further increasing and reinforcing inequality.

Looking at the patterns and trends in housing wealth inequality across UK regions, Levin and Pryce (2011) found that housing wealth inequality rises and falls across UK regions, following the cyclical patterns found in regional and national house prices. Essentially, regions pull part as prices rise first in the South East and then the more Northern regions catch up later in the market cycle. They found no cast-iron evidence of an upward trend in this cycle between regions. However, the long-term shift in the distribution of house prices will widen the gap between owners and renters. They found the most striking finding was the volatility or amplitude of the cycle, which in turn has significant impacts on overall household wealth.

The distribution of wealth in Scotland

We now turn to housing wealth in contemporary Scotland, reporting two recent studies using the UK Wealth and Assets Survey. First, the Scottish Government's Community Analysis Division published a time series analysis of the distribution of wealth in Scotland (Kuhl 2017). Second, the Resolution Foundation (Bell and D'Arcy 2018) presented an overview about wealth in Scotland covering the period 2014-16 (that included additional statistical evidence).

According to Bell and D'Arcy (2018), of the £1.050 trillion that constituted Scottish total wealth in 2014-16, property wealth made up £285 billion, compared to £543 billion in private pension wealth³, £122 billion in physical wealth and £100 billion in net financial wealth. They also found that as a percentage of GDP, aggregate wealth in Scotland has grown in just ten years (to 2015) from being five times GDP, to more than seven times the level of GDP.

³ While the largest component of private wealth, we must note the special status of the calculation used to calculate pension wealth (Kuhl, 2017, p.6). The figure is actually the pension pot or pension rights, calculated at a point in time, and estimated in different ways. This is simpler for a defined contribution pension than it is for a defined benefit, which has to be modelled. The financial parameters and changes to them may have a significant impact on the measured size of pension wealth rights.

The earlier study (Kuhl 2017) looks at four waves of the wealth and assets study in Scotland ending in 2012-14 but while this does allow examination of property wealth from before to after the recession and global financial crisis, the analysis does not appear to take account of inflation. However, it remains useful, particularly for showing relative shifts in wealth and its composition over time. Not accounting for inflation, total wealth grew by 22% between 2010-12 and 2012-14. This was a considerable growth in all components of wealth but particularly, pensions (p.1). Kuhl found for 2012-14 regarding the overall distribution of wealth:

- The wealthiest 10% owned 43% of all private new wealth and the top fifth owned just below 63% of all wealth.
- The wealthiest 1% owned more than the bottom 50% (the bottom half of the population owned just 9% of all private wealth)
- Looking at property wealth in 2012-14, the wealthiest 10% owned 43% of property wealth whereas the lower half of the population in terms of wealth, owned just 5% of property wealth.

In an interesting analysis comparing cohorts of people born in five-year periods since the second world war, Bell and D'Arcy (2018) found that no cohorts born since the mid-1960s have generated more wealth on average per adult than their predecessors at the age of 35. In other words, the previous stable patterns of successive generations acquiring more wealth has stopped and actually reversed so that younger people are unable to make the same wealth gains as their predecessors. Related to this, home ownership, as across the rest of the UK, has fallen for Scottish households. In 2004, 48% of 25-34 year olds Scots owned their homes, but that figure then fell to 32% in 2017.

Kuhl (2017 p.16-17) found that for 2012-14, the least wealthy 30% of Scottish households combined had no property wealth but the richest 10% owned 42.5% of net property wealth. Bell and D'Arcy (2018) found evidence that inheritance tax revenue in Scotland has increased substantially in the three years up to 2016-17 (by 31% in real terms) though the increase was larger for the UK than in Scotland. Also, they rightly point out that there is an arbitrary element to property wealth accumulation linked to how local and regional housing markets perform over time for instance, average house prices in Edinburgh are more than twice that of East Ayrshire. Kuhl (2017) also reports that the least wealthy 30% of households have very few assets and despite job growth, work is no longer a protection against the challenges of low wealth holdings.

Wealth is very unequally distributed (and much more so than incomes). Looking at Gini coefficients⁴, the Scottish wealth coefficient was more than 0.6 in 2014-16, compared to just over 0.3 for the income distribution (Bell and D'Arcy 2018). Property wealth has a higher coefficient and is therefore more unequal than for wealth as a whole. Property wealth is however less unequally distributed than private pension wealth, and less so in comparison to the highly unequal (greater than 0.9) measure for financial wealth. Kuhl (2017) looks at four waves of the Gini coefficient data (reprinted in table 1). These numbers are striking. Inequality is relatively stable, and the overall wealth picture is becoming slowly less unequal albeit from a very high base. Property wealth inequality is virtually unchanged at 0.65, considerably less than the very high values attached to financial and pension wealth.

⁴ A summary measure of overall inequality where 0 is total equality with each household having the same amount of wealth and 1.0 complete inequality where just one household has all the wealth – consequently – lower scores suggest less inequality and higher scores more inequality.

Table 1 Scottish Wealth Gini Coefficients, 2006-8 to 2012-14

| Wealth class | 2006-8 | 2008-10 | 2010-12 | 2012-14 |
|-----------------------------------|---------------|----------------|----------------|----------------|
| Property wealth (net) | 0.65 | 0.64 | 0.64 | 0.65 |
| Financial wealth (net) | 0.90 | 0.89 | 0.93 | 0.89 |
| Physical wealth (gross) | 0.47 | 0.48 | 0.45 | 0.47 |
| Private pension wealth | 0.79 | 0.77 | 0.74 | 0.73 |
| Household total Net Wealth | 0.66 | 0.63 | 0.61 | 0.61 |

Source: Kuhl (2017) Table 6.1.

Bell and D'Arcy (2018) report in 2014-16 that the median Scottish household was slightly less wealthy than the equivalent for Great Britain (£236,800 compared to £259,400). Property wealth was considerably less in Scotland (£65,000 compared to £95,000 for the GB median household). However private pension wealth was higher in Scotland (£69,770 compared to the GB figure of £58,000). Gini coefficients for Scotland and Great Britain were very similar in 2012-14 (0.65 in Scotland and 0.66 in GB).

Bell and D'Arcy (2018) found that 25% of Scottish people have less than £500 in savings (more than in GB where a comparable figure is 22%) and 7% had either no (or negative) savings. Kuhl (2017 p.31) shows the risk of being a low wealth household (i.e. the lowest 30%) by household type. Not surprisingly, the highest risks were for single parents with dependent children (63% and single working age adults (55%), with single pensioners at 37% and lone parents with non-dependent children at 33%. The lowest risks were for couples with non-dependent children (13%), pensioner couples (9%) and couples with one of working age and one pensioner (3%). Kuhl (2017) also found that nearly two-third of the less wealthy group were headed by someone in a routine or manual occupation.

4. Economics and housing wealth

Key points

- The economics literature related to housing wealth tells us that high and/or rising housing prices and rents have direct effects of housing wealth. Studies also tells us that there are significant impacts on stability, savings and productivity, which may have feedback effects on wealth patterns and social mobility.
- The policy decisions relating to housing wealth and consumption impacts have generally been the purview of central banks and national finance departments i.e. not housing or sub-national governments. This is despite the growing evidence that regional variations (including in Scotland) are important.
- Affordability problems and local housing shortages matter to the economic performance of cities and regions – a recursive impact from rising housing wealth cumulatively can be to make cities and regions less competitive and economically dynamic which in turn has further income and wealth consequences for citizens.

Housing wealth and economic impacts

Housing markets, prices and wealth

As housing wealth has grown as a public, policy and academic concern there has, recently, been a marked improvement in the data and techniques for analysing stocks and patterns of different kinds of wealth. Major, detailed studies of assets, consumption, savings and housing are now possible in a wide range of countries including the UK, the USA, Germany, France, Sweden and Australia. In terms of published research there have been two distinct strands of work, the largely macro-economic/econometric analyses of the relationships between housing wealth, other wealth, consumption and savings and the more individually oriented qualitative research of household understandings of housing values, wealth and wealth behaviours. Arguably, behaviourally oriented micro-economic studies that could have linked these two otherwise disparate research fields have been relatively few in number so that 'econometric' and 'qualitative-social studies' remain somewhat disconnected⁵.

At the same time, there has been a helpful, changing emphasis in research from a sole focus on how housing wealth drives economic changes and choices to also considering how these effects may have, in turn, knock-on feedbacks, impacting on non-housing wealth, wealth distributions and social mobility. Below, we report evidence not only on how high and or rising housing prices and rents have direct effects of housing wealth but also report on studies that show impacts on stability, savings and productivity that may have feedback effects on wealth patterns and social mobility.

There is clear evidence that house prices and rents grew over long periods, prior to the 1970s at rates similar to the economy as a whole (see Knoll et al. 2014). Grossman et al (2018), however, make the observation that the demand for essential, basic housing characteristics as necessities, helps explain why rents have risen faster for the lowest income groups with the consequences that housing expenditures have risen as a share of income (in contrast to higher income groups) and reduced incomes after housing costs for poorer households. They refer to rents rising with economic growth as a 'particular poison for the poor'. Fuller et al. (2019) argue that after 1950, home ownership, in many countries, formed an important element in long-term savings and asset accumulation systems that established clear life-cycle patterns of savings, consumption, housing wealth and overall wealth. As is discussed below, the acceleration of house prices and rents ahead of incomes after the 1970s (albeit at different dates and to different extents in different countries) has disrupted some of these roles and patterns,

⁵ Some recent studies point to ways to link and learn from both approaches (Bampinas et al. 2017; Lersch and Dewilde 2018)

with the speculative (uplift seeking) ownership of assets acquiring a growing role and clearly displacing the steady savings of mortgage repayment as the key connection between housing choices and housing wealth.

House price inflation essentially arises as population and income growth drive housing demands while market supply systems fail to accommodate increasing demand. Knoll et al. (2014) argue that, until the 1970s, improvements in transport technologies (and the cost of commuting) allowed housing supply to grow into suburbs and further from employment without undue housing inflation. In recent decades the role of land use regulations has attracted much comment (Glaeser and Gyrko 2018) as the contemporary cause of high house prices but other factors are often also put forward to explain underlying rising house prices (such as infrastructure shortages or failures in workings of the construction market).

Housing outcomes, capabilities, prices, incomes and wealth

Housing is a 'commodity' with multiple attributes that feed into a wide range of household activities and sources of wellbeing. These characteristics, and the costs associated with renting or buying them, influence household capabilities not only to be sheltered but to live, play, work and learn. The characteristics of a home, and the nature of the neighbourhood unavoidably bound up with it, may shape the ability to form, sustain and use human capital (Maclennan et al. 2018) and hence impact the income and wealth of a household. The cost of housing plays a key role determining after housing cost incomes, as do commuting and important neighbourhood attributes. These characteristics may also shape longer run household income potentials.

A significant aspect of housing is that for owner-occupiers (now the majority), housing is both an asset as well as a commodity. This has two important effects on longer term patterns of household wealth. First, purchasing a property almost invariably involves taking a mortgage that requires regular, often long term, saving on the part of households. Moreover, mortgage lenders usually require purchasers to make deposits of their own equity and these will require prior saving for purchasers or, as is now increasingly important a transfer or bequest of capital from, usually, a family member. Second, house price increases driven by economic growth mean unearned wealth gains for existing owners and equivalent increases in the entry costs for future purchasers. Some economists, most notably Buiter (2010), argue that these gains for current owners and losses for future buyers essentially balance out (they are a 'transfer' effect) and that rising house prices may have near neutral effects on the macroeconomy. However, as noted in Maclennan and Miao (2017), this assertion flies in the face of the evidence that patterns of wealth, not least between generations, may have important effects on the dynamics of housing markets, incomes and wealth.

Much of the evidence cited below is testament to the non-neutrality of housing price changes. Once house prices start to rise, they may trigger significant recursive effects where rising prices increase rather than weaken, in the short term, demands for housing. That is, speculative demands for housing may raise prices and the wealth of existing owners. Recent experience suggests that markets manifesting persistently firm price increases have raised Buy To Let (BTL) demands from already housing 'wealthy' (often older) households and rationed younger households into rental housing (in turn postponing their asset accumulation through housing ownership (Fuller et al. 2019; Grossmann et al. 2018; Kindermann and Kohls 2018; Lersch and Dewilde 2018; Maclennan and Miao 2017).

These housing decisions may also reflect a range of wider policy choices. For instance, the non-taxation of housing capital gains may encourage households to increase their stock of home-owner housing. Reduced public infrastructure programmes may restrict effective housing supply side responses to rising house prices. The nature of mortgage markets, and their integration (through deregulation) into the wider national and international capital markets also have implications for house price growth and cycles in housing market activity. They have also shaped differences in inflationary outcomes not only across but within countries. Some countries, such as Germany, have been much more effective at limiting real house price increases (Fuller et al. 2019; Geiger et al. 2016; Lersch and Dewilde 2018).

House price increases have been so prolonged and high in major cities that housing assets have, after 2000, appeared as significant in the wealth portfolios of the very rich (in contrast to the past). However, Kindermann and Kohls (2018) provide strong European evidence that larger shares of home ownership within a nation or a region result in smaller wealth inequalities. Higher ownership may not necessarily mean a more efficient housing system, and it may exacerbate renter-owner inequalities but in aggregate it induces less unequal wealth distributions. The effects of wider asset ownership, in aggregate, usually outweigh the rising wealth gaps between owners and renters so that higher ownership systems tend to have less unequal overall wealth distributions. As the work of the Resolution Foundation shows (Bell and D'Arcy 2018), accumulated housing wealth now play a key role in overall household wealth portfolios in the UK.

Housing wealth, the economy and recursive effects

In recent years there have been significant efforts in the advanced economies to increase understanding of how higher house prices and housing costs, and wealth outcomes affect the overall economies of nations, regions, cities and individuals. Initial interest in the issues was reinforced by the recognition that housing wealth gains might, through housing equity withdrawal as well as a wider feel-good factor, have a direct effect on current consumption but also have a wider 'financial accelerator' effect as households used housing assets as collateral for enhanced borrowing. These studies have spread into a wider scan of 'macroeconomic' issues impacted by housing prices that may then feedback onto wealth formation. The main issues emerging are how potential housing market instabilities pose a systemic risk to economic growth, the effects of rent and price increases on the long-term asset and savings behaviour of households and, in recent years, there is also an emerging concern that high house prices and rents may impair labour supply and productivity thus further attenuating wealth accumulation based on enterprise and effort rather than 'rent-seeking'.

Housing wealth and consumption

A widely developed literature on how housing wealth outcomes affected consumption existed before the financial crisis, see, for instance Muellbauer (1987) and Case et al (2001). Estimates of how much general consumption increases when housing wealth rises typically lay in the range of 5 to 10 per cent. By 2010 it was widely agreed increased housing wealth led to increased household consumption and did so most when house prices and market activity were on the increase, thus worsening macroeconomic instability, sometimes to a large extent. Further, there was well established general evidence that these effects were significant in countries that had deregulated mortgage markets and developed mortgage securitisation approaches and home-equity loan products (Flood et al. 2005). Deregulation of financial markets had, in effect, both been associated with the increased rate of accumulation of housing equity and the rate at which it was 'released' or 'extracted'. New regulatory approaches to reduce housing sector driven systemic risks (macro-prudential policies) have been apparent in the wake of the Global financial Crisis (GFC).

There has been a succession of studies that have established that the generation and transmission of housing wealth into consumption and instability varies markedly from country, depending on the institutional and policy regimes prevailing in both the housing sector and monetary policy. Muellbauer's paper (1987) led to a long series of different national studies (with different co-authors) that have used essentially similar modelling frameworks and closely comparable data (Chauvin and Damette 2010; Chauvin and Muellbauer 2016; Geiger et al. 2016), for instance, for Germany and France. These papers offer strong confirmation for Flood's et al (2005) earlier observations. For instance, Geiger, Muellbauer and Ruprecht (2016) concluded that Germany, over the period 1980-2012, differed significantly from the UK as rising housing wealth (and prices) did not translate into increased consumer spending. Similarly, working with Chauvin (2016), Muellbauer concluded that, over the period of the French price boom from 1996-2008, the negative effects of higher house prices and higher debt on consumption neutralised the positive consumption effects of higher housing wealth and easier credit thus avoiding the 'amplifying feedbacks' observed in

the US boom. The policy implications of these studies are that the potential destabilising effects of housing wealth changes are a matter of policy choices, but they are largely choices in the realms of monetary policy and financial regulation and that highlights a difficulty for levels of sub-national (or Eurozone) governments without such powers.

There has also been a range of modern, sub-national studies revealing a more nuanced view of when and how house price rises will increase consumption. Recent work in China (Dong et al. 2015)⁶ draws attention to two very different effects of rising house prices on household savings and consumption. They note that rising house prices may leave households feeling more affluent and willing to spend more and that such rising housing assets allow households to remove constraints on their borrowing to spend (the widely recognised ‘wealth effect’. However, at the same time, rising housing costs may reduce consumption, both before households purchase a dwelling, as they save for a bigger housing deposit, and after they have entered ownership in order to pay their mortgages and set aside potential reserves should labour market complications threaten mortgage payments (an argument also advanced by Lersch and Dewilde (2018). To date econometric work has paid much less attention to the latter effect than the former.

Studies by Dong et al, (2015), Bampinas et al (2017) and Arrondel et al (2019) confirm that changes in housing wealth do impact on consumption and also illustrate that the weight of effects (recognising the different data forms and estimation techniques used may also matter) differ from country to country and indeed city to city so that more regional-metropolitan analysis may also be required. Scottish level policy action needs to be based on Scottish level research. The microeconomics studies also highlight the diverse potential effects that need to be considered.

Housing prices, debts and financial stability

Since 2010 there has been growing macroeconomic policy interest, internationally at the IMF and OECD and within national Central Banks, in how house price rises, and in the consequences of taking debt to fund purchases at high and rising prices, creates systemic risks for metropolitan economies if prices should fall, given the exposure of households who are highly indebted through mortgage loans (IMF, 2016: RBA, 2018, BOC, 2018). This goes beyond the traditional interests in housing wealth effects on consumption to consideration of the risks house price falls pose for the wider economy. These central bank and IMF estimates fail to take account of the underlying increases in the values of the assets that loans purchased. That is, net household debt, as opposed to gross totals, is not at record levels and risks may be being overstated. This caution may also be reinforced by that fact that the rising cost of buying homes has meant that parents and grandparents are now often funding first-buyer deposits and that is likely to dampen the level of defaults in downturns. We make these points to stress how a new perspective on how housing-based savings and wealth impacts the economy in the long run may be required.

Rents, prices, savings and wealth in the long-term

Chauvin and Muellbauer (2016) reported the offsetting effects of rising rents and debts on housing wealth effects on consumption in France. At the sub-national scale, Dong noted that some affordability squeezed households choose to reduce consumption to pay rents and mortgages. They may face increasing housing wealth and falling disposable incomes and well-being at the same time. Arguably, there are younger UK households who may have faced this issue over the last decade. At the individual level, as noted, Lersch and Dewilde (2018) stress the importance of understanding how housing wealth, savings and incomes evolve over time.

⁶ Although out of scope for this review, this is a useful illustrative paper with broader implications and hence included here.

The transfer of wealth from older, richer generations to younger cohorts seems to be of growing significance in facilitating the entry of younger households in home-ownership. House price changes, and expectations about them have a potentially significant effect on bequest behaviours (Begley 2017). The direct support of younger family members by parents and grandparents has been noted in Australia (Cadge and Whelan, 2017). Similar patterns are reported by lenders and the press in the UK. Interestingly, there has been little policy discussion of how such cross-generational transfer of housing wealth within families might be best organised. Longer-term work for the USA and Australia (Guest and Swift 2010; Takats 2012) using econometric models with housing and demographic components stresses that properties released into the housing market as elderly home-owners die are likely to have a downward influence on house prices especially for 'late-boomers'. This conclusion is highly contingent on other growth drivers, and the literature (e.g. Green and Lee 2016), at this stage, is sparse and indicative more of important questions to ask than definitive conclusions.

This is opening up a new area for housing costs and wealth research that is setting house price increases (rising wealth) in the context of the savings required to access ownership and the capacities of households to raise entry deposits where they live in highly priced rental housing. These have potentially significant effects on the savings behaviours of rental households, the life cycle point at which they acquire housing assets and commit to regular 'mortgage' savings. These effects may shift the life-cycle structure of household savings and wealth not just at ownership entry points but later in the life-cycle when households reach retirement. Governments have taken decades to recognise the falling home-ownership rates of younger generations and they are only now beginning to recognise that a sustained shock of high rents and deferred entry to home-ownership will have a significant effect on overall wealth, and not just housing wealth in later years. The papers of Grossmann et al (2018), Lennartz and Helbrecht (Lennartz 2014; Lennartz and Helbrecht 2018) and especially Kindermann and Kohls (2018) all emphasise the need to refocus on this topic area.

A review of research (Maclennan et al. 2018) suggests that in the USA rising house prices are driving not only firms but skilled labour away from optimal productivity (metropolitan) locations to lower cost, but lower growth localities. Similar relocation patterns can be seen in Australia and they need to be investigated in the UK (Maclennan, et al. (2015)). More recent research in the Australian context notes that a common consequence of higher metropolitan housing costs has been for households to move towards lower cost suburban land and face higher transport costs. In this regard, housing and transport costs need to be always viewed together in assessing the affordability and distributional effects of housing outcomes. But these choices, and costs, also mean that rising house prices, and wealth, may reduce productivity and wealth stemming from human capital, business and innovation. Maclennan et al (2019a) have established, using economic modelling, that in Sydney these negative productivity effects induced by housing location decisions are substantial in scale (this also matter in faster growth areas such as Edinburgh).

5. International comparative evidence: the importance of institutional contexts

Key points

- International comparisons are helpful when thinking about housing wealth inequalities, their outcomes and impacts. However, we need to take account of the different nature of national housing systems, institutional and policy contexts so that we do not derive erroneous conclusions or jump to unevidenced policy judgments.
- Nonetheless, there is much to learn from comparative work looking at shared problems of homelessness, non-affordability and the housing dimensions of increasing inequality.

A comparative context

International comparisons on the distribution of housing wealth are useful to understand both enduring differences between groups of countries related to their institutional contexts as well as changing trends and their drivers. Since the 1990s, rising rates of international flows of labour as well as the deregulation and linking of national housing finance systems have given added greater global synchronicity to housing market shocks and trends in housing prices (Alter et al. 2018). It is also important for policy making in setting desired benchmarks and learn lessons on how best to achieve them.

For some time, comparative housing studies have struggled to account for institutional difference. Earlier studies focused on home ownership rates but do not fully capture households' equity because they do not account for mortgage indebtedness (Fuller et al. 2019); nor do they account for housing quality relative to households' needs and legacies of past institutions (Lux et al. 2011; Soaita and Dewilde 2019). Housing wealth data is still hard to produce (Fuller et al. 2019) though Piketty (2014) and colleagues have assembled remarkable, historic datasets for the US, UK, France and Germany in particular. While Piketty's work remains seminal in the field, clearly showing the broad contribution of housing wealth to wealth inequality, it did not make the most of engagement with housing (MacLennan and Miao 2017). Thereafter, several authors attempted to do so (Fuller et al. 2019; Lersch and Dewilde 2018; Wind and Hedman 2018; Wind et al. 2017).

Fuller et al. (2019) note that house price growth acts as a mechanism of increasing inequality. While the effects of house price growth on (housing) wealth inequality is important to chart, they argue that understanding how domestic institutions and policy frameworks shape wealth inequality and house price growth, remains a more important question.

Wind et al. (2017) developed the idea of 'housing wealth accumulation regimes' in a comparative analysis of the distribution of net housing wealth across occupational classes in 16 European countries.⁷ They observed that with the expansion of home ownership, housing wealth becomes a more important dimension of social stratification since prices reflect quality and location. They found that increasing home ownership rates in deregulated, market-based housing systems, such as the UK are associated with higher housing wealth inequality across occupational classes, as an increasing number of 'marginal' owners are drawn into precarious home

⁷ Note that using net housing wealth (house value minus mortgage debt) in cohort analysis distorts the results simply because older cohorts had more time to pay off the mortgage.

ownership. Conversely, when the state significantly regulates or either the state or the family enable access to home ownership (e.g. Right to Buy or self-build), labour-market income decouples from housing consumption resulting in a more equal distribution of housing wealth. Furthermore, comparing two cohorts, those who bought in the 1960-80s versus those who bought after the 1980s financial liberalisation, they found that:

- Family-based provision of housing through self-built and pooled resources (e.g. Italy, Portugal) is associated with less housing wealth inequality.
- The privatisation of public rental housing is associated with less housing wealth inequality within the cohort who benefited (e.g. Right to Buy in Scotland).
- State subsidies for home ownership might reduce housing wealth inequality between occupational classes (e.g. Denmark, Sweden, Netherlands), being associated with a more equal distribution of housing wealth within the cohort who benefited.

Lersch and Dewilde's (2018) makes a valuable contribution by looking at housing wealth versus savings across the life course, comparing the UK with Germany that is a country with a longstanding record of relatively high real house price appreciation versus a housing market with long term real stable house prices (until after the 2010s); a less versus a more generous welfare system; Germany also manifested a more regulated mortgage market requiring significant equity deposit for entrants and tax incentives favours the construction of a large scale private renting sector in which 'dynamic' controls limited rent increases. The authors clearly note that home ownership is selective in both countries (i.e. only those of medium/higher income being able to access mortgage markets) and requires higher savings rates of younger households in Germany than in the UK. The relative stability of house prices has encouraged households to remain as savers longer as house price increases do not run ahead of deposit accumulation. They note that homeowners are doubly advantaged in both countries as they accumulate financial and housing wealth independently, so more so in the UK than Germany giving higher house price growth in the former than the latter. Tenants are doubly disadvantaged but more so in the UK where high rents preclude savings.

Germany and the UK (though less so than the USA) represent rather well the extremes of approaches to housing as a means of capital accumulation (although higher than historic rates of real price appreciation in Germany since 2010 may modify that picture). Households accumulate wealth in housing in two ways. In a world of house price stability home ownership may augment wealth, at least in the earlier stages of the life cycle, as households first save to acquire an entry deposit and then regularly save by repaying (in most forms) their mortgages. Germany, in many respects has adopted this 'savings' approach to home-ownership longer than most OECD economies. In contrast, in the UK, wealth accumulation in housing has, since the 1970s been primarily driven by rising prices and capital uplift rather than steady mortgage repayments. Similar remarks apply to the relatively highly deregulated systems across the OECD economies, such as the USA, Australia, Canada, the UK, New Zealand, Ireland and Norway (MacLennan et al. 2019b).

6. Asset-based welfare evidence

Key points

- Despite the existing possibilities to draw down housing wealth for consumption or welfare, few people actually do so in practice. Housing wealth is generally accessed only as a last resort, as a safety-net, with most people reserving it as precautionary saving (old-age care) and to be bequeathed to the next generation.
- Given young peoples' difficulties in entering home ownership, financial and housing wealth is increasingly transmitted down the family generations in the forms of gifts or co-habitation. This practice is referred to as the re-familiarisation of welfare.
- The international literature examines the likely trade-off between reliance on home ownership (and housing wealth) in exchange of less public support for pensions.
- A small but growing literature studies the impact of divorce on the housing wealth and subsequent housing careers in terms of tenure and gendered outcomes.
- Asset-based welfare and its impact on inequality is shaped both by tenure and whether people affected are property-rich or property-poor.

An introduction to asset-based welfare (ABW)

ABW policies (Sherraden 1991) encourage low-income households to accumulate assets in the form of subsidised savings, which could be later deployed to finance education, a business, home ownership or address other family welfare needs. It was claimed that owning assets helps the poor escape poverty, as opposed to means-tested welfare which creates poverty traps. A subfield of ABW studies – 'homeownership-based welfare' (HBW) – is concerned with the financial benefits of home ownership. This argues that the owned home represents an asset while also enabling income flow (rent-free living or actual rent), which can be deployed to support family welfare. Home ownership has been historically supported by states through various subsidies (e.g. mortgage interest relief, tax exemptions, mortgage guarantees and RTB discounts). The HBW literature distinguishes between different households' strategies to benefits financially from home ownership:

- *Passive* strategies make use of outright home-ownership exclusively in terms of rent-free living. This approach is linked to a desire to age in place (the 'home' motive), the precautionary saving motive (e.g. old-age care; safety-net) and the bequest motive.
- *Active* strategies of accumulating/de-cumulating housing wealth via up-/down-sizing over the life course. In this 'housing ladder' approach, housing wealth is accumulated over the working age and partially de-cumulated during retirement. It puts housing wealth at more uses, maintaining a more comfortable life-style while still maintaining a reserve for precautionary saving and inheritance.
- *Pro-active* strategies are facilitated by innovative financial products (e.g. re-mortgages, equity release) enabled by the deregulation of the banking sector coupled with high house price growth. This approach expands the role of housing wealth to cover short-term needs (unemployment, sickness, divorce), new routes to investment and aging in place while pushing mortgaged debt into later life.

Overall, there are mixed results regarding the effectiveness of HBW strategies in providing for family welfare needs and mitigating social risks. To exemplify, we focus on three areas: relating to pensions and aging; divorce and dissolution; and HBW and inequality.

Pensions and ageing

Castles (1998) argued that home ownership facilitates a trade-off between the state subsidising access to mortgages at the expense of providing generous pensions. This means that households can traverse retirement with smaller pensions as they benefit from rent-free living or additional income from down-sizing or equity withdrawal. However, the assumption that housing wealth is primarily used to supplement one's pension is challenged. For instance, older homeowners in the UK prefer to transfer their housing wealth rather than use it for consumption, including delaying spending on old-age care (Fox O'mahony and Overton 2015; Wood et al. 2013). Moreover, housing wealth is increasingly used prior to retirement to address sudden welfare needs such as long-term sickness, unemployment and partnership dissolution (Andre et al. 2019; Soaita and Searle 2018).

However, households' practices differ across countries, in part because of different policy settings for welfare delivery and housing. Delfani and Dewilde (2014) revisit the home ownership/pension 'trade-off' argument by examining 22 countries. They found that the institutional context of housing and pensions makes the use of housing wealth highly specific across countries and social groups. In countries with both generous housing-related subsidies and generous state-regulated/provided pension systems, households do not require to use housing equity to support their pension; welfare outcomes for the elderly are least unequal. Only in countries where both housing and pensions are provided by the market, such as the UK, housing wealth indeed complements the welfare package of the elderly, particularly for *middle*-income households since the higher-income do not need it (they have both) and the lower-income cannot access it (they have none). Housing wealth and pension wealth inequalities reinforce each other in countries such as the UK. The authors argue that generous pensions rather than owner-occupation alleviate old-age poverty; however, in the absence of the former, outright owner-occupation helps reduce poverty.

Blundell et al. (2016) also examined similarities and differences in the housing/pension wealth trajectory of households aged 70 and over in the US and England. They stressed the difference that institutions make to the wealth portfolio of the elderly. They observed that medium wealth is remarkably similar in the two countries but the richer 40% of Americans were much richer than their English counterparts. American retirees were found to liquidate wealth between 2002 and 2010 much more rapidly than their English counterparts. A crucial explanatory factor was rapid house price appreciation in England, which meant that every English cohort accumulated housing wealth, which offset the slow use of non-housing wealth. This observation raises two important questions, which we discuss below.

First, can we (still) speak of 'housing rich/income poor' households and if we do, what are the social and policy implications for social fairness? Blundell's et al. (2016) note that the richest 33% of retirees spend faster to maintain their life-style whereas the poorest 33% of retirees just save enough to pay for funeral. This is telling of the extent of wealth inequality in later life. Second, why do not housing-rich/income poor households spend their housing wealth via active/proactive strategies to improve their wellbeing and welfare? The motives of bequest and precautionary saving (particularly the high cost of care in both countries), unwillingness (preserving a 'safe' home) or inability (illiquid markets, unsuitable financial products or houses) are possible explanations.

Indeed, qualitative research in the UK has evidenced that older people' reluctance to withdraw housing wealth comes from their strong desire to bequest and age in place in a debt-free home (Fox O'mahony and Overton 2015; Rowlingson et al. 2017; Soaita and Searle 2018). Similar findings were substantiated for the case of Belgium (De Decker and Dewilde 2010). Fox O'mohany and Overton (2015) looked at the meaning of the owned home for older people engaged in equity release and substantiated feelings of guilt for spending part of their children's inheritance, and discomfort about indebtedness. Nonetheless these came second to a desire to age in place and have enough space to host memorabilia and retain support networks, which precluded downsizing and motivated equity release.

French's (2018) quantitative longitudinal study also observed that while between 40% (London) to 77% (North East) of pre-retirees expected to downsize and 14% expected to withdrew equity, less than 2% had done so eight years later. The study finds that:

- Financial hardship or sudden financial shock explained almost all variation to whether people withdrew housing wealth. Housing wealth served as a safety-net.
- Economic reasons explain almost all the variation to whether people withdrew housing wealth by downsizing or equity release: downsizing was more common for households whose house value was high relative to regional values and equity release more common for older households (being cheaper).

Studying equity release in the UK and Australia across all ages, Wood et al. (2013) found that equity borrowing declined deeply with age in both countries. Across all ages and both countries, equity borrowing was determined by family welfare needs such as childbirth, child entry in home ownership, relationship breakdown/divorce, sudden drop in income but surprisingly, not long-term health problems or death of a spouse, which are more likely to be 'insurable' events. They conclude that equity borrowing has a welfare-switching role away from collective resources to self-provisioning. Likewise, Costa-Font et al (2010) examined the willingness to take a reverse mortgage among people aged 55 and over in Spain, showing that a reverse mortgage did not depend on peoples' income or home values but on their welfare needs (including health and financing old-age). However, more than half of participants strongly preferred to preserve their housing wealth rather than mobilise it for consumption. We concur with Doling and Ronald's (2010) conclusions that the potential outcome of housing wealth as a form of pension is country specific, and it seems to increase inequality, particularly in countries that lack a generous and inclusive pension system, which includes the UK.

Divorce and dissolution

We have already mentioned that households tended to withdraw housing wealth to address financial shocks stemming from 'uninsurable' events such as relationship breakdown (Costa-Font et al. 2010; French et al. 2018; Wood et al. 2013). Four studies looked at this matter in more detail, but they are hardly comparable; they focused on the UK, period 1998-2008 (Hubers et al. 2018); Australia, period 2001-14 (Andre et al. 2019) and 10 EU countries, period 2008-12 (Dewilde and Stier 2014; Wind and Dewilde 2018).

Taken together, however, it can be said that positive *net* housing wealth may provide a safety-net in the short-term in case of divorce/dissolution and that the event of divorce/dissolution may have long lasting effects on the housing wealth held by divorcees and their children. In particular:

- Divorced owners are more likely to exit home ownership in later life or have significantly less housing wealth. This is less so in countries with broad mortgage markets, generous welfare benefits and larger female employment (Dewilde and Stier 2014; Wind and Dewilde 2018).
- There is a clear gender effect in that divorced males are more likely to re-enter home ownership and less likely to suffer prolonged financial hardship in the long-term. Andre et al. (2019) suggest that men's higher likelihood to re-partner makes the effects of divorce/dissolution less enduring in housing systems that required dual-income to access home ownership. The study also found that the owned home can act as a financial burden for females who face difficulties in paying the mortgage.
- There is a positive association between parents' homeownership and the likelihood and timing of their children's entry into homeownership, with this association being counter-intuitively stronger for divorced mothers. While having fewer resources, divorced mothers seem more willing to offer direct assistance (Hubers et al. 2018).

Overall, the negative (housing) wealth consequences of divorce seem to persist in the long run – significantly more for people of lower income/education levels and for women. The potential for home ownership as a safety-net is therefore limited and cannot replace more traditional forms of welfare. Section 3 showed that financial and housing wealth are unequally distributed across the income spectrum, social groups and geographical space, making the potential for HBW to be highly unequal.

HBW and inequality

A critical line of argument crosscutting these studies relates to the implications of housing wealth inequality for a social policy premised on possessing housing wealth. Key inequalities to consider are those between property ‘haves’ and ‘have-nots’ and those between ‘property-poor’ and ‘property-rich’ households. The first considers inequalities between tenants and homeowners whereas the second looks at inequalities across homeowners, including those with multiple properties (e.g. landlords, discussed in section 9).

We showed that the passive approach to benefit financially from home ownership through rent-free living in retirement may be justified by reduced state welfare spending (Castles 1998; Whitehead 2016), being appreciated by households when other savings and tenure alternatives are poor (Doling et al. 2013; Rowlingson et al. 2017; Smith and Searle 2010). But taking the leap of positioning housing *wealth* rather than owner-occupation as a base for family welfare raises key questions of exclusions and fairness.

Tenants are by definition excluded from HBW but so are financially-stressed/marginal’ homeowners (Koppe 2017). By looking at private insurance take-up in the UK, Soaita and Searle (2018) found that affluent homeowners were insured against every major risk such as death, unemployment, illness, building and contents and lacked the only insurance relatively popular among tenants that for funeral expenses. Tenants’ individual support networks centred on the family (e.g. child and old age care) but this cannot be taken for granted by policy as many are estranged from or had no close family.

Comparing ‘otherwise-similar’ tenants and homeowners, Lersh and Dewilde (2018) demonstrate that it is not consumption behaviour, values or preferences that explain the ability to save towards entry into home ownership - in the UK and Germany - but peoples’ (and their family’s) financial position. Homeowners are doubly advantaged as they independently accumulate financial and housing wealth. Conversely, tenants are doubly disadvantaged, primarily in the UK, as they lack financial and housing wealth. There is therefore no ‘trade-off’ between savings through financial products or saving thorough home ownership (particularly in the UK, one of the few countries where rents are higher than mortgage payments). Likewise, Soaita and Searle (2018) report on marginal homeowners and tenants who fell out of home ownership. Compared to ‘successful’ homeowners, they were more likely to be self-/temporary-employed and to have experienced unlucky life events, such as illness, domestic violence, relationship breakdown *prior* to the accumulation of any net equity. Tenants’ lack of resources may translate into economic hardship in later life, particularly in the UK where rental costs are high and public pensions low. This policy concern is widely voiced in the HBW literature.

Few studies acknowledged the high cost of servicing a mortgage (i.e. money paid for interest and not for the capital). This cost means that households actually pay two to three-times the purchasing price of their home (Soaita and Searle 2016). The cost of borrowing disadvantages home-buyers in lower versus higher-price growth areas. Given that lower-income households purchase cheaper properties in lower-price growth areas with minimal deposits, the cost of borrowing disadvantages the marginal and not the affluent households as mortgage costs wipe out a higher proportion of their capital gains.⁸ Wind and Hedman's (2018) also looked at capital gains in deprived versus advantaged neighbourhoods, including by households' social class. They clearly showed that higher-income individuals realise higher capital gains compared to lower-income households and migrants.

Koppe (2017) showed that marginal homeowners in the UK make 10% of all homeowners; within these, about 2% struggled to pay their mortgages; 4% dropped out from home ownership without re-entry and another 4% succeeded to re-entry. Demographically, they were more likely to be female, younger, experience a relationship breakdown, have high mortgage debt to income ratio and a second child in the household. While most people make a successful transition to outright home ownership, it should be acknowledged that entry in home ownership is socioeconomically *selective*. This means that, in the absence of policies such as RTB, home ownership favours middle/high-income social groups. While it could be argued that by mortgage restrictions imposed after 2008, marginal home-buyers were 'protected' from the risk of falling out of home ownership (since they could not anymore access it), they face the hardship of an expensive and insecure private renting sector in the short term and likely hardship in old age.

⁸ Soaita and Searle (2016) showed that in 1990-2015, the cost of borrowing wiped out on average 66% of capital gains incurred in the North-East but only 38% in South-East.

7. Health and wellbeing

Key points

- To what extent do housing wealth inequalities become associated with unequal health and wellbeing outcomes and can we ascribe causality (e.g. does housing inequality cause health inequalities or vice versa or is something else, unmeasured, influencing the relationship)?
- A number of carefully-designed quantitative studies have addressed this question through the device of looking at different housing wealth patterns in different markets to see the extent to which they explain health and wellbeing outcomes.
- The evidence is mixed in that several studies say that there is an impact from housing to health but at least one careful (UK) study suggests that there are intervening factors (neighbourhood quality, local amenities and economic opportunities vary as well so it is not a pure wealth effect) and there are strong assumptions deployed in the other studies which can be queried.
- The evidence is on balance provisionally positive about the causality from wealth to health, but we should be cautious.

Does wealth shape health?

To what extent are housing wealth inequalities associated with inequalities in health and wellbeing outcomes? We identified a small number of interesting relevant quantitative studies carried out in Australia, Finland the USA and the UK that, overall, provide mixed evidence on the question whether increases in housing wealth are correlated and indeed may be causally related to improved health outcomes. This is suggestive regarding wealth inequality though clearly it is not precisely the same thing. This should not be too surprising as studies in this area have been plagued by causality problems and statistical issues (Atalay et al. 2017). All of the studies (bar the last one) below make the assumption that local house price trajectories and their timing are independent of health outcomes and that we can therefore measure the effect of house price changes on health outcomes. This may seem fundamentally reasonable, but it needs to be carried through with careful empirical work that captures all critical variables and suitably controls for possibly confounding influences.

Atalay, et al (2017) carefully examine large-scale household panel data (2001-15) to consider the wider effects of shifting patterns of housing wealth and debt in Australia. By examining house price variations on health outcomes, the authors exploit the spatial variation in house prices. They find an increase in local house prices tends to increase the physical health of owners but is associated with a decrease in physical and mental health outcomes for renters. The authors acknowledge the existence of possible confounding factors such as local amenities and macroeconomic factors but conclude that these are distinct from the health-wealth gradient they have found in the data. This is significant as a key finding from this literature is that trying to find and measure the effect of variations in housing wealth on health and wellbeing outcomes may be muddled up with local amenities which also explain variation in house prices. Finding robust estimates that control for these dimensions is useful.

Two studies by Hamoudi and Dowd (2013; 2014) contribute to this literature in similar vein. The first paper (2013) adopts a quasi-experimental design, combining house price data at local levels over the period 1988-2007 with data from a large-scale health and retirement study of middle aged and older households for 1992-2006. It adopts the same idea of drawing on the impact of different house price trajectories to isolate the impact of housing wealth on households and their health outcomes. They found that respondents in areas with higher increases in house prices scored better on multiple health outcome variables.

Their second paper (2014) focused on cognitive and psychological outcomes associated with house price increases, using a similar methodology. Here, they find that rising housing wealth was associated with lower anxiety (for women) and a general improvement in some, though not all, cognitive tasks. The effects also demonstrated big differences between owning and renting which was interpreted as a wealth effect on mental health outcomes.

Fichera and Gathergood (2016), for the UK, use robust panel data methods to identify locally varying house prices and consequent housing wealth effects. The variations across space in prices, subject to statistical controls are then used to identify the lower (self-reported) risks of owner households experiencing negative non-chronic physical health outcomes (and no negative psychological health outcomes). Moreover, these effects persist for 10 years. The authors argue that housing wealth affects the decision to work (or work as much) and reductions in time at work has beneficial health impacts,

Ratcliffe (2015) starts from the same premise regarding the assumption that local variations in house prices can generate a pure wealth effect on health and well-being (in her case, subjective measures of mental well-being). However, she is concerned that neighbourhood quality, local amenities and the like can be capitalized into house prices so that wellbeing enhancement may as much be about quality of where one lives, and local economic opportunities as opposed to a pure wealth effect. This might be the case if for instance, renter households (with no housing wealth) also benefited strongly in mental well-being terms in 'good' areas. Using UK panel data from 1991 to 2007, the author does indeed find positive well-being effects for both owners and renters and this correlation remains after she controls for income and for employment status. Ratcliffe concludes that the data does not produce a pure wealth effect, nor does it conclude that local house price rises have the straightforward causal effects identified in other parts of the literature.

What are we to conclude from this brief review? First, the results are mixed though largely positive. Ratcliffe's (2015) work in particular raises some concerns about the veracity of the working assumption used in the other four studies. However, the studies all employ well designed panel data and in two cases quasi-experimental designs specifically to overcome problems of reverse causality and omitted significant variables. Second, we have a wide range of results here, the majority of which suggest positive wealth effects on health wellbeing outcomes but only one, that of Ratcliffe, that unpicks the key assumptions and looks at other explanations to do with the economics and quality of the areas where house price variation is identified. So, while the balance of results appears to reinforce the positive impact of housing wealth on health outcomes, these should be treated with caution as provisional and suggests the traditional refrain of calling for more research in the area.

8. Intergenerational inequalities and social mobility

Key points

- Intergenerational inequalities are a contested, much-debated issue. This is in part due to how we define 'generations' but also how we carefully measure different cohorts and control for confounding factors. Between and within-generation inequalities needs to be analysed together.
- While generational inequality may be 'apparent', it may well be driven by wider structural inequalities associated with labour-market precarity and housing unaffordability (itself driven by different processes), among other things.
- The literature increasingly studies gifts and inheritances but we note that they are often not made (because housing wealth is being used for other more immediate purposes or stands as rainy-day insurance); the few who do receive bequests do so much later in life. The windfall of receiving an inter vivo gift to enable e.g. entry to ownership is unavailable to many millions of people.
- Housing wealth inequality may well inhibit social mobility through multiple channels advantaging those already with the financial capacity to support their children – from affording better schools to assisting housing investment decisions. However, more evidence is required.

A debated terrain

Housing has been a key part of the debate on intergenerational inequalities between for instance 'baby-boomers' and 'millennials' (Kotlikoff 1992; Thomson 1996; Willetts 2010). Of course, it is important that we do not over-simplify or over-generalise these generational cohort ideas. For instance, the political-economic changes to welfare states and the relationship between the state and the individual have affected old and young, but particularly the poor, the un-skilled and early labour-market entrants (Aalbers and Christophers 2014; Christophers 2018; Crawford and McKee 2018; Lapavitsas 2009; Standing and Baclija 2011). To respond to the alleged 'generational war' promoted in the media, several authors focused on family practices. They show that family solidarity responds to shrinking welfare states by pooling space, care-time and money across family generations (Arber and Attias-Donfut 2007; Rowlingson et al. 2017). While family solidarity may be celebrated, there is increasing evidence that it constitutes a powerful mechanism to increase inequality. In this, home ownership, property assets and housing wealth play an important role (Arundel 2017; Lux et al. 2018; Nethercote 2018; Whitehead 2016).

Any accounting of generational differences should therefore carefully look at and control for inter- and intra-generational inequalities (i.e. between and within age cohorts) while controlling for changing life-events (e.g. delayed access to home ownership due to increased take up in higher education), age effects (e.g. net versus gross housing wealth since the mortgage is paid over time) and wider drivers across society (e.g. the long term dismantling of welfare states and more precarious labour markets).

Inequalities between and within birth cohorts

It is widely agreed that one effect of rising house prices (wealth) is to increase cleavages between older and younger birth cohorts. Fuller et al. (2019) note that between the late 1970s and early 2010s, home ownership rates among 25-34 years olds fell by a quarter in France, by nearly half in Denmark, Germany, Spain, the UK and the US, and by almost two-thirds in Italy. In the UK, they argued, the cost of a first home has risen from 2.7 to 5.2 years of earnings between 1983 and 2015. However, these patterns should be qualified.

Arundel's (2017) looks at net housing wealth inequalities within and between cohorts. He found that housing wealth is highly concentrated among the top decile of housing wealth distribution.⁹ Housing equity among the top two deciles represented over 60% of all national housing net equity, while the top four deciles hold over 85% during the 2006 to 2012 period. Over the period, a steady pattern of concentration among both the top 40% and top 20% holders of housing equity, suggesting that the concentration is being generated by redistribution from housing-poor to housing-rich and not simply by new-built housing.

This increasing inequality resembles the much stronger patterns in the US where: *'while lower and middle-class households saw evaporating opportunities, the very top earners regained much wealth during the so-called "recovery" where, in the US, up to 95% of gains went to the top 1%'* (Arundel, 2017 p.177). Arundel (2017, p.194) concludes:

These inequality trends are further playing out at both inter and intra-generational levels with trends in decreasing equity especially pronounced among young cohorts alongside growing divides between more or less successful households within age groups

Christophers (2018) and others (Allon 2010; Crawford and McKee 2018; Kalman-Lamb 2017) critique the idea that 'generational difference is a crucial axis of inequality today' because they are manifestations of more fundamental structural inequalities, e.g. increasingly unequal labour markets, highly financialised investment markets and family life. In other words, while the authors do not deny that generational inequalities exist they view them as contingent and strengthened through 'toxic' policies such as age-targeted instead of from-rich-to-poor redistribution, the very casting of redistribution as a problem, and a focus on the individualisation of welfare within family and down the family generations. We develop the last of these ideas in the following subsection.

Gifts and inheritance

House price consolidation has resulted in the concentration of wealth in the hand of higher-income households, older individuals and economically powerful regions and metropolitan areas. It also meant that the winners of this housing-price lottery are able to pass down generation significant wealth through inheritances and gifts, helping their young offspring.

The international literature on intergenerational transfers is growing and helps understand how inter-/intra-generational inequalities consolidate; it makes a strong argument that intergenerational transfers reinforce (housing) wealth inequalities but the extent to which this occurs is country specific. Not unexpectedly, in countries in which housing wealth and income inequalities are relatively small, and access to education inclusive, the impact is relatively small, such as in the Czech Republic or Norway (Gulbrandsen and Sandlie 2015; Lux et al. 2018). Conversely, in societies where home ownership is highly stratified, such as in Germany and UK (Koppe 2018; Lennartz and Helbrecht 2018), intergenerational transfers have a particularly sharp impact.

⁹ Imagine all UK households ranked by their net housing wealth, the grouped in 10 equally-sized groups (same number of households in each group); those in the highest housing wealth group make up the top decile.

The studies show that parental gifts are offered for many reasons (e.g. to support access to education, rental costs, clear debt) but higher value transfers are given to assist entry in home ownership and even landlordism (Searle 2018). These transfers are not only unequal - that is wealthier recipients receive higher gifts than their poorer counterparts, allowing for an earlier entry in the housing market (Barrett et al. 2015) – but trigger a ‘wealth-effect’ over the life-course (Hills et al. 2013), including through house price appreciation.

However, the number of people who received gifts and inheritances is small. Across five European countries,¹⁰ 5.4% on average have ever received large financial support of whom 2% one off and 3.4% regularly (Emery 2018). In the period 2002-12 in Australia (Barrett et al. 2015), only 6% of individuals aged 25-65 received financial gifts and 1.4% received an inheritance. Barrett et al. (2015) note that receipt of an intergenerational transfer doubled the likelihood of entering home ownership compared to non-receipt (but marriage more than triples it, indicating that home-buying has become a dual-income affair). Likewise, recipients were more likely to buy higher value homes than their un-supported first-time-buyer peers. This suggests that those who would have entered home ownership were more likely to receive assistance (also observed in Soaita and Searle, 2018 for the UK). Parental assistance is more likely to be offered in expensive areas, hence from parents who enjoyed housing wealth accumulation to children needing to pay for higher house prices.

On the flip side, Cigdem and Whelan (2017) note that intergenerational transfers play a much more important role in facilitating home ownership for those at the margins. Policy-wise, this might suggest encouraging families, if feasible, to direct gifts to those who need it most. However, in the UK, Soaita and Searle (2018) evidenced the very strong cultural norms of offering equal transfers between siblings whatever their socioeconomic situations, with little distribution within the extended family towards more disadvantaged members.

However, in the UK, Koppe (2018) finds very small effects of inheritance on the likelihood of children to acquire their first home, suggesting there are no period or age effects. Likewise, Dewilde, et al. (2018) find small effects of intergenerational transfers increasing inequality. While this is surprising since other studies show that financial gifts influence access to home ownership in many countries (Lennartz and Helbrecht 2018; Lersch and Dewilde 2018), it also draws attention to the fact that practices of intergenerational transfers are not new. Indeed, research studies rely on the respondents’ self-declaration of whether they received any *financial* gifts and it was noted that memory tend to minimise gifts received in the distant past (Soaita and Searle 2018). The short data span of many datasets is also an issue (Koppe, 2018). However, Dewilde et al. (2018) conclude by raising the broader question of social mobility:

Much of the stratifying impact of family background probably flows through persistent generational continuities in human capital, income, and occupation.

Rowlingson et al (2017) reached the same conclusion. They note that gift-giving and receiving is more prominent among the middle-classes than working-classes and that it represents a declining minority practice between 2004 and 2014, indicating that parents’ assistance was affected by the Global Financial Crisis. Moreover, a quarter of donors found it difficult to find the money. However, only 2% of those offering financial gifts sourced them from their housing wealth (by downsizing or re-mortgaging), savings and income being the most common source. Overall 73% of recipients said parental financial assistance made a (very) great difference to their lives, particularly so among the 16-39 years old, including for very small gifts received. The authors conclude:

we find considerable evidence of a high level of family solidarity in terms of a growing need for families to support each other given recent changes to socio-economic structures. [...] Such economic independence also enables families to secure the next generation in a similar social class position. Thus, as family support increases in some families, with the withdrawal of state welfare, existing inequalities between families are widened and social mobility in society is reduced.

¹⁰ Austria, Bulgaria, Czech Republic, France and Germany

We must therefore always remember the silent but large group who has no transfer, gift or inheritance to receive because of ill-luck, parental housing careers, or the absence of a family background that makes such financial support possible, whether needed or not.

Social mobility

There is considerable policy interest in the extent to which social mobility is being thwarted in the UK and the role that inequality, including wealth inequality, is an important driver of reduced mobility¹¹. The role of housing wealth inequality is posited by the authors in the DCLG (2010) series, for instance, that the capitalisation of property values as a result of residing in high quality school catchment areas – reinforces advantage over time which will be reflected both in rising capital values and often better school performance and subsequent opportunities. However, as in other policy areas associated with wealth inequality, identifying and isolating the independent effect of wealth and advantage in creating more unequal social mobility is a challenging statistical and analytical problem.

McKnight and Karagiannaki (2013) provide a powerful quantitative analysis. Using panel data, they tested whether (a) intra-generational mobility (across the same cohort) during early adulthood could explain differential outcomes in terms of employment, earnings, health and mental well-being; and, (b) over time in terms of inter-generational social mobility, whether parental wealth, including housing wealth, impacts on children's adult outcomes (at age 25) in terms of educational attainment, employment and earnings. The authors found a strong relationship between parental wealth (especially housing wealth) and children's educational outcomes on to earnings and also employment. They also found that young people holding assets via inter-generational transfers or investments has a positive differential impact on progress in employment, earnings, health and well-being. This is only one, admittedly careful, empirical study but is indicative that housing wealth does have a powerful set of impacts on social mobility, with other studies supporting this argument (Rowlingson et al 2017).

¹¹ See the Social Mobility Commission <https://www.gov.uk/government/organisations/social-mobility-commission>.

9. Landlords, rentiers¹² and housing wealth

Key points

- During a period when home ownership has contracted, the rental market has grown quickly; landlords who may now account for 5% of all adults in England. The sector has grown extensively (more people have become landlords) and intensively (some landlords acquired more properties). This creates a new way in which housing wealth increases inequalities as most landlords are wealthier and have higher incomes than tenants (though there is high diversity among landlords).
- With few notable exceptions, we are woefully short of detailed analysis of private landlords in the UK and Scotland. Longer term research programmes aimed at evaluating recent reforms to tenancy law in Scotland are needed.

The diversity of the private renting sector

The growth of the UK's private rented sector (PRS) makes it a pervasive feature of contemporary life, with more people renting for longer periods of their lives. The sector is very diverse, housing students, migrants and the young but increasingly families unable to access home ownership, low-income and vulnerable people unable to access a social tenancy, and many of those experiencing divorce/dissolution. Segmented and diverse in terms of both tenant and landlord circumstances and interests, the PRS encompasses good and bad housing, good and bad tenant experiences and now different regulatory practice across the UK. This dynamic and segmented sector is hard to monitor and respond to – limiting our ability to make sense of landlords' housing wealth (and interpret the literature we have at our disposal). Indeed, the PRS has been long seen by media and academics as a tenure option for tenants rather than a welfare or investment strategy for landlords, even in countries where the sector has been historically large such as Germany and Australia.

While in the 1990s, studies on landlords were scarce (Kemp and Crook 1999), evidence has recently grown (Ambrose and McCarthy 2019; del Ceno et al. 2015; Lloyd 2013; Lord et al. 2013; Rugg and Rhodes 2018; Sanderson and Wilson 2017; Soaita et al. 2017; Wallace and Rugg 2014). The number of international studies is also growing, though they are rarely comparative (Bierre et al. 2010; Duffy et al. 2017; Pawson et al. 2017). Given that the nature of landlordism differs across countries, this section focuses primarily on the UK. We identified several studies particularly relevant here, all referring to the UK (Arundel 2017; Lloyd 2013; Lord et al. 2013; MHCLG 2019; Ronald and Kadi 2018; Rugg and Rhodes 2018).

The UK's landlords

The remarkable growth of the UK's PRS in the last 20 years marks a social shift into property ownership on a scale similar to that produced by the RTB in the last twenty years of the 20th century. About 2.5 million people now own residential assets generating rental income and capital growth and more than a million people have acted as letting agents in this bottom up revolution (Rugg and Rhodes 2018).

¹² 'Rentier' is an old but still relevant term to describe property owners who make a living from the increases associated with land values without actually contributing to that growth, and do so at the expense of occupiers.

While landlords' socioeconomic and demographic characteristics, and property strategies are diverse, it is helpful to distinguish between two broad groups in term of the size of their rental portfolio, small or large (Nethercote 2018; Soaita et al. 2017):

- In 2010 in the UK, 72% of landlords had just one rental property, 22% had 2 or 3 properties and only 6% had 4 or more properties (Lloyd 2013; Lord et al. 2013).
- By 2018, MHCLG (2019) shows that just under half of all individual landlords in England own one property for letting purposes; a further 38% own 2-4 units and the remaining 17% have 5 or more units (owning almost half of all rented properties).

The above evidences the increasing concentration of rented property since 2010, facilitated by BTL mortgages, with under-researched consequences on the growth of housing asset values, particularly in metropolitan areas (Maclennan et al. 2019b) as well as serious implications to housing wealth inequality (Arundel 2017). Despite this property-concentration in the hands of large-portfolio landlords, Ronald and Kadi (2018) argue that over one million small-portfolio landlords have emerged in the last decade in the UK (Glasgow alone has more than 30,000 private landlords). This means that the sector has grown extensively (more people have become landlords) and intensively (some landlords acquired more properties). On a side note, Rugg and Rhodes (2018) indicate that 9% of landlords were currently private tenants, commonly home owners letting between residential moves (Soaita et al. 2017).

The 2018 English landlord survey (MHCLG 2019) found that the majority of landlords were motivated to let in order to earn better returns than alternative investments, contribute to their pension and/or supplement income. In-depth qualitative research evidenced further reasons (Soaita et al. 2017; Wallace and Rugg 2014), including flexibility, lower investment risk, portfolio diversification, providing children university accommodation, and/or just because everybody does it. MHCLG (2019) reported that:

- 94% of private landlords are individuals or couples (up from 80% in 2010). Landlords are on average older than all adults but younger than all homeowners; and less ethnically diverse than general population. They have increasingly been landlords for some time (and the longer they have been in operation the more likely they are to use BTL mortgages).
- The median annual gross income from renting was £15,000. Three in five landlords earned less than £20,000 gross annual rental income and only 13% earning more than £50,000. Rental income made up 42% of landlords' total gross income.

Qualitative research (Bierre et al. 2010; Nethercote 2018; Soaita et al. 2017) showed that small-portfolio landlords see their letting property as an Assets-based Welfare strategy, providing/ supplementing pensions, insuring a safety-net. They entered the market circumstantially (inheriting property; partnering), as a family strategy ('Ma and Pa' landlords) or to counteract the historically low interest rates on savings (see also Duffy et al. 2017; Hegedüs et al. 2014; Pawson et al. 2017).

Conversely, large-portfolio landlords see landlordism as a business activity and a way to diversify their wealth portfolio (MHCLG 2019; Soaita et al. 2017; Wallace and Rugg 2014). These individuals have purposefully built their rental portfolio as a side or business activity. It appears that UK's landlords who entered the market in the 1990s—with the deregulation on the PRS tenancies – bought commonly with cash and have maintained a low-debt portfolio. At the same time, two-thirds of those who bought after the 2000-boom in BTL mortgages preferred high-debt expansion by re-mortgaging existing property (nonetheless, about a third of rental properties bought after 2000 were still bought with cash). This insight into the diversity of landlords' circumstances helps understanding landlords' diverse socio-economic profiles.

While the number of landlords has grown from 558,000 in 1991 to over 2.12 million in 2012 (Arundel 2017), landlordism remains highly concentrated among privileged households. For instance, in comparison with homeowners and the whole population, landlords are more likely to grow up in an owner-occupied home; have higher education levels; be in work; have higher incomes, more financial wealth and larger homes. Consequently, their ability to save/invest their economic capital across various financial products is also higher. Landlords are more likely to believe that property is the best way to invest and finance retirement (though 2015 tax changes have disadvantaged individual compared to institutional landlords). Using 2008-10 data, Lloyd (2013 pp.20) argued that landlords were in a privileged position even though only a few 'could be considered "super rich" '. Given that only 20% of PRS tenants received housing benefits and that landlords were significantly better off than their tenants, he argued that PRS increases economic inequality through transfer of income from the least to the better off in society; and from the younger to the older cohorts.

While the average picture is telling of the privileged position of landlords, it also hides diversity. For instance, Lord et al. (2013) and Lloyd (2013) showed that 22% of landlords do not have enough income to meet outgoings. The high difference between their mean and median household income (£75,103 versus £20,500) tells us that a significant number of landlords have far below £20,000, with many being marginal landlords, a few at risk of repossession (Wallace and Rugg 2014). The same is true for their monthly rent received (mean £1,493 versus median £500).

While the generational pattern is clear with landlords being older than renters (average age 49 and 37, respectively in 2010), the relatively small age difference is telling of important socioeconomic cleavages between the two. Indeed, many landlords are younger, and many tenants are older than generally assumed, indicating social class differences. Landlords' age profile is also very diverse: while their mean age is 49, 75% of landlords are aged between 35-65 (and 25% beyond these thresholds). Looking by age cohort, Ronald and Kadi (2018) evidenced that the highest growth in landlordism occurred among those currently in their 40s and 50s. It is only among the very young (below 25) and very old (over 75) that landlordism has not increased. Qualitative research showed that young landlords have benefited from substantial family support, whether in the form of DIY in developing properties, child care or significant financial gifts (Soaita et al. 2017); by taking their friends as lodgers, young homeowners also become landlords (Soaita and McKee 2019).

Drivers

Some of the driving forcing that enticed people to become landlords are country specific, such as financial deregulation and the retreat of the welfare state in the case of the UK, Norway and in some eastern European countries¹³ (Maclennan et al. 2016). The deregulation of the banking system was particularly important in the UK, where BTL mortgages allow the expansion of landlords' portfolio by extracting equity from an owned property to be used as a deposit for a new one, this being facilitated by high house price growth. Families responded to the retreat of the welfare state by extending HBW strategies of funding retirement and providing a safety-net to landlordism. Inheritances also contributed to the growth of the UK's PRS with 9% of rented dwelling being inherited.

Other drivers are increasingly global, e.g. the circulation of capital in search for higher returns generating overseas ownership of rental housing (Fields 2018; Maclennan et al. 2019b). Indeed, global policies of low-interest rates resulted in historically low returns in alternative investment products such as shares, bonds and savings, positioning residential property into a new asset class accessible to individuals (Fields 2018). Cross-country landlordism is a particularly under-studied phenomenon as are the returns earned by BTL landlords.

Finally, we should not ignore the increased organic demand for renting that has occurred in recent times: from students and migrants; young people unable to save for a deposit; individuals locked in precarious labour markets (Maclennan et al. 2016).

¹³ This does not apply to enduring deregulated countries (e.g. Australia and the US) or enduring regulated countries (e.g. Germany, Netherlands, Sweden). In some countries, rent controls are a choice for states and provinces (or even some cities, e.g. New York, Toronto).

Broader outcomes

A number of general points about housing wealth redistribution in the more deregulated rental provision systems such as the UK are apparent. Rising real rents across rental housing markets have involved significant transfers of income, and potential wealth accumulation, from tenants to landlords. Given the metropolitan dimensions of the processes driving these changes, it is the owners of property, owned or rented, who are capturing the housing gains from metropolitan economic growth. This shift is generally regressive, with transfers to better off rather than to poorer households. It has also reduced the traditional capacity of home ownership to reduce wealth inequalities through early saving, investment and capital gain accumulation.

The UK-Germany contrast is most informative; it shows that the UK failure to manage home-ownership growth and the expansion of landlordism – that is without an effective strategy to mitigate house price and rent increases – has shaped an economy where returns and wealth have increasingly been driven by 'rentier' capital (Maclennan and Miao 2017). Better managed housing markets have allowed Germany to focus more effectively on the education, investment and innovation infrastructures that promote a successful productive economy. Housing wealth accumulation and its distribution is at the centre of the processes that drive the economy towards rentier outcomes that reinforce inequalities (Piketty, 2014).

10. Policy responses

Key points

- Wealth inequalities regularly feature in wider discussion of tax and public policy reform. Housing tax policies, broadly conceived, offer a suite of potential policy reform instruments to consider, though specifically Scottish measures need to recognise the mixture of devolved and reserved fiscal policies that would have most leverage influencing housing wealth inequality.
- A key constraint is reformability – the technical, political and acceptability of wealth reform. While much of the focus is on the difficult political economy of reform, there are many practical problems of reforming property taxation.
- The Scottish vision for a well function housing system proposes stabilising real house prices and reducing dependence on property as a store of wealth. These are of course interdependent objectives and they confront further reformability issues – but, one definite way to reduce housing wealth inequality is undoubtedly to curtail real house price inflation over time. It's less clear how it is to be done in practice.

Policy matters

Wealth inequalities play a large role directly or indirectly in recent broader analyses of policy reform programmes, particularly with respect to taxation reform (e.g. Mirrlees et al., 2011), the funding of social care in older age (Dilnot 2011), as well as explicit wealth and inequality reform platforms (Atkinson 2015; Hills et al. 2013; Piketty 2014). Reform of specific housing interventions (mainly fiscal policies) have also been indicated for wealth inequality reductions reasons (Bell and D'Arcy 2018; DCLG 2010; Gibb and Christie 2017; O'Sullivan and Gibb 2012; Rugg and Rhodes 2018). Below, we briefly outline the relevant parts of each of these policy areas before reflecting on the challenges of pursuing policy reform in this area in a combined devolved-reserved policy worked in the UK and also the reasons for the wider resistance to policy reform in this realm of public policy (Slack and Bird 2014).

First, it is worth reminding ourselves of the main ways in which housing taxation and related policy levers impact potentially on wealth inequalities:

- Policies that support home ownership e.g. help to buy and other subsidy/guarantee routes; also, S106/S75 arrangements that can provide for unmet housing need through planning agreements with private developers – creating mixed tenure housing.
- Taxes on housing – stamp duty/LBTT taxes on housing transactions; real Capital Gains Tax (CGT) on second homes and private residential investments; income tax on rental income with associated allowances and mortgage deductibility for landlords; council tax [an annual tax on the estimated banded value of property set in 1991 prices (apart from Wales where there was a revaluation in 2007 and Northern Ireland which has its own property tax based on the capital value of property in 2005)]; and, VAT on repairs and refurbishment but not new homes. Owner occupiers first homes pay no CGT on realised sales; nor do they pay any tax on the imputed rental income they receive (they did until the early 1960s) but they no longer receive tax relief on mortgage interest. Major recent tax changes to private landlords reduced mortgage interest tax deductibility, increased transaction taxes by 3-4% and penalised their CGT liability.
- Inheritance tax (IT). While this has a large allowance taking most people out of IT, it is growing in terms of revenue in itself is suggestive of the importance of housing wealth in contemporary society (Bell and D'Arcy 2018; Hills and Glennerster 2013).

- Regulation, support, provision and control of rented housing. Scotland unlike England has enjoyed a major programme of investment in new social and affordable housing in the last two parliaments. The affordable component has shifted over this period relatively and away from home ownership towards 'mid-market renting', which competes directly with the rental market. Scotland has also undertaken a series of significant regulatory reforms of the rental market, most important of which is the creation of open-ended tenancies and the end of no-fault evictions (18 legally-specified reasons for ending the tenancy remain, probably the most problematic is the scope for sale of property). There are also stronger dispute resolution mechanisms.

The Mirrlees et al. (2011) Tax by Design review offered a systematic general approach to tax reform and has become something of a benchmark model of what is required to create an efficient, just and sustainable tax system. The aim was to create systemwide, progressive, efficient and environmentally improving tax reform. As regards housing, they envisage in the absence of a land value tax, the application of a tax on above normal rates of return to investment (i.e. leaving returns up to normal returns untaxed) and that housing should face a recurrent tax broadly equivalent to VAT by taxing the annual consumption (i.e. rental) value of housing. They would remove stamp duty (LBTT in Scotland) altogether. In place of inheritance tax, they propose a long-term shift to a lifetime wealth transfer tax (which would tax receipts as they are transferred).

Atkinson (2015), a close and long-term colleague of Thomas Piketty, sets out a clear policy programme for wealth and income inequality reduction. Atkinson proposes a number of radical changes including higher personal income tax rates for the top 1% and guaranteeing public employment for all (at the living wage), a universal basic income, new savings products from the state that guarantee a real return, and ethical pay policies in return for access to public sector contracts. In terms of wealth inequality, he proposes:

- Increased taxation of investment income relative to earned income
- An annual wealth tax
- A proposal for significant reforms to home ownership taxation and council tax
- A lifetime capital receipts tax similar to Mirrlees et al. (2011).

Hills and Glennerster (2013), based on Hills et al. (2013) provide an overview of the issues, proposals and the political economy or degrees of difficulty in making progress. They provide a checklist differentiated by degrees of practical difficulty of implementation (including political acceptability). It is interesting that across the range of issues the more difficult to achieve reforms align with exactly what Atkinson and Mirrlees seek to achieve, and also, that many of the problems of acceptability related to more thorough reforms in the housing wealth sphere (inheritance tax, taxing investment returns to home owners, introducing a land value tax). They also however recognise that important redistributions could be generated by improving the design and generosity of means-tested benefits, making pension tax relief and allowances less generous and finding pragmatic ways to fund long term social care.

Dilnot's Commission (2011) is focused on how to fund a sustainable fair and better set of outcomes for financing and providing long term social care (largely) for the elderly. This is about sharing the risk of the cost burden of uncertain care spending without threatening all housing assets, imposing high costs on individual households or imposing excessive public spending to do so. Dilnot (2011) proposes a life time cap on personal contributions which will avoid cliff edges and depletion of personal assets, alongside a range of specific proposals including more generous means-tested support.

The DCLG expert discussion on housing wealth inequality (DCLG 2010) raised a number of policy suggestions to tackle housing wealth inequality. First, they encouraged savings in other forms of assets such as house price linked savings accounts to increased taxation of housing assets. However, policies would need to avoid damaging confidence in the housing market. At the same time, there was mention made of supporting financial products that would allow non owners' investments to keep pace with housing wealth creation. Second, and as we saw, revenue from housing-related taxation e.g. of inheritance, is creeping up. This may be an incentive to spend housing assets rather than pass them on to the next generation. Third, respondents argued for increasing home ownership through shared ownership. Williams (2010) argued that some of the benefits of owning housing assets may have been overstated and better for government to encourage alternative savings options. Machin (2010) argued for mitigation of HWI through regeneration, making better use of social housing to create mixed communities and reviewing selection mechanisms for schools to seek targeted responses to the social mobility problem raised earlier.

O'Sullivan and Gibb (2012) critique the macroeconomic and microeconomic or microsocial cases for privileging the tax status of home ownership and then, finding no general compelling case to support home ownership per se, move on to consider the case for neutral taxation and in particular capital gains tax on housing and how one might build a strategy to promote such a tax reform. Focusing on council tax reform, Gibb and Christie (2017) chart the widening gap between the Scottish local tax commission's 2015 proposals for thorough-going reform as against what was consequently implemented by the Scottish Government in 2017. They use this example to set out the challenges of carrying through often difficult property tax reform (drawing on the work of Slack and Bird 2014).

In a context of Scotland's recent private renting reforms, it is also useful to reflect on the policy reform agenda set out in Rugg and Rhodes (2018) for the PRS in England. In particular, the authors are reluctant to say that the recent tax changes targeted at BTL landlords will have an appreciable quantitative impact on landlord activity, they think it unlikely it will 'diminish appetite for investment'. However, there does appear to be a growing sense in the sector that new investment is being curtailed by BTL landlords and exits from the sector are increasing. They also expect institutional build to rent to grow across the UK and call for policy to be much better informed by rigorous information on market practice and analysis.

We have already noted that the Scottish Government, when it turns to what it considers to be the vision for a well-functioning housing system, explicitly states that house prices should be stable in real terms and that housing should not be excessively used as a store of wealth. These are ambitious aspirations given the litany of difficulties identified concerning moving ahead with progressive reforms to counter or slow housing wealth inequality. They also have to cope with the challenge that while some policies are devolved and hence levers are potentially accessible to Scottish ministers (or indeed local government and other public agencies), other important levers reside in Westminster and the UK government (Moore 2017). Potentially relevant Scottish policies include placemaking, infrastructure and social and affordable housing investment; housing regulatory policies; housing needs and demand assessment analysis, joined up city-regional deal policies; council tax, land and building transaction tax, social care funding arrangements, and devolved social security powers. But big powers remain in London: capital gains tax, income tax treatment of landlords, inheritance tax, VAT (which will only be part-assigned not devolved when 2016 provisions are enacted in Scotland), pension wealth reforms and tax treatment and most of the social security system.

The critical question is how does one overcome the considerable challenges of building consensus and then implementing substantive reform, for instance, property tax reform (Hills and Glennerster 2013). Slack and Bird (2014) identify critical hurdles of high salience (people really feel their property tax payments), the sense that property taxes are not as legitimate or valid as other taxes; and the political inclination to dilute reforms, often technically weakening them (e.g. by not implementing regular revaluation of the tax base).

11. Integrating discussion and conclusions

Evidence review: recapping key points

The distribution of the value of the ownership of housing assets plays an increasingly important role in shaping the distribution of wealth, and income, in most advanced economies. The Scottish housing system has transformed over the last four decades from a rental majority to almost two Scots in three owning their own home. That shift, and the fall-back in ownership from 66% to 62% over the last decade accompanied by the rapid growth in private rental investment, have had important implications for both fairness and economic growth in Scotland.

The advent of more accessible official data and survey resources has greatly informed our knowledge of wealth inequality. The data suggest that wealth inequality is increasing just as wealth is becoming more important in size relative to GDP and incomes. Housing wealth has grown with owner-occupation (for a while reducing inequality by spreading ownership and assets across society) but is now increasingly associated with various dimensions of inequality relating to worsening access to home ownership, affordability problems, inter-generational transfers and housing-led asset-based welfare (particularly for older home owners). We have seen, across a range of distributional indicators, that wealth is far more unequally distributed than income and that property is (slightly) more unequally distributed than wealth as a whole.

Wealth patterns are dynamic and are now increasingly affected by new forms of property ownership as landlord investment has expanded over the last 20 years, as well by the key driver: the long term upward if uneven growth in real house prices. Not only is this increasing wealth for asset owners and investors, it starkly distinguishes them from those who do not own assets and those who are now increasingly reliant on the munificence of asset holders to transfer or otherwise support them in key life decisions such as securing a deposit to buy a first home. Housing as an asset plays an important role in shaping the welfare opportunities of older households but it is far from clear that this is an effective way of providing for the needs of older people or that there are suitable alternative forms of assistance for those who do not hold such assets. The evidence also supports the intuition that increasing wealth inequality is cumulative and shows up as an explanation of social immobility and the social gradient of health and wellbeing outcomes.

We can identify eight cross-cutting themes.

- Analytical issues have repeatedly struck us through the course of this review. On the one level we need to triangulate quantitative and qualitative (and mixed methods) research as well as manage how we interpret work from very different starting points and methodological perspectives about the meaning of knowledge and the nature of the world. As important, in trying to discern the independent effect of wealth inequalities we have repeatedly confronted difficulties in being able to do so. Throughout, we have tried to identify what appears to us to be good practice.
- Spatial issues are important and also will be for our sister study by the Resolution Foundation e.g. local and regional variations in how housing systems, assets and monetary values evolve alongside debt but also the tensions for policy in considering devolved v reserved matters.
- Scottish and UK housing wealth inequality in part reflects the characteristics of the particular housing system and wider welfare state, economic and social institutions. We have to be vigilant comparing the UK (and Scotland) to other national systems.
- HWI is important and we do need frameworks like the simple model used here with which to understand housing wealth, what causes it and how its impacts on society. These frameworks are necessary if we are to develop better understandings of the role and impact of HWI and to make real progress with the necessary changes required to policy settings to make progressive change.

- Inter-generational themes run throughout the review and are characterised by complexity and the need for careful, thoughtful analysis that situates intergenerational inequality in a wider frame shaped by a more detailed understanding of within-generation inequities and the wider housing system.
- A key part of the changing housing system is the increase and spread of private renting both as a housing tenure but also through the rapid mass growth of landlordism across a highly segmented sector. This is a market we still know remarkably little about, certainly in terms of specific market segments in specific geographies. Understanding Scottish housing wealth inequality requires a proper appreciation of local market differentials and trajectories more widely – the empirical part of the project, led by the Resolution Foundation, can play an important role in this part of the work by looking closely at these sub-national variations and their implications.
- We need not only to understand the effects of HWI on specific subgroups (old v young; owners v those who cannot own; the use of housing wealth; landlord behaviour) but also how this relates to broader forces in society, the economy and the housing system. This is a source of policy demands but not necessarily for policies that both promote a better functioning housing system and indeed the more efficient use of housing assets; it can also be a source of ill-conceived sectional policies too (in part because of imperfect understandings of parts of the housing system and how it interacts with other drivers like housing wealth).
- Majority home ownership and long-term real house price inflation are not unconnected, but equally they also direct policy makers and commentators towards discussion of asset-based welfare ideas. This is nothing new but we have identified many complex and challenging features of over reliance on such ideas both in terms of how wealth owners want to use their assets but also the fact that the direction explicitly excludes many arbitrarily disadvantaged households – reinforcing inequality.

Conclusions

There are three main conclusions that we end this report with: a reflection on the extent to which our review responds to the research questions posed (and the key gaps remaining); a discussion of the implications of the review for analysis being conducted in parallel by the Resolution Foundation; and, a final assessment of the policy ramifications of housing wealth inequality for Scotland.

We would contend that this evidence review speaks to all of the research questions but probably is primarily concerned with the impacts of housing wealth inequality, how we separate and isolate its effects on society and economy and what this means. We see that it is important to situate housing wealth as a process that evolves over time, varies by different levels of geography and is intimately connected with the wider housing system and trajectory. We cannot underplay the importance of recognising how difficult it is for researchers to separate out the independent role of housing wealth. It also reminds us of how limited and partial is our knowledge of specific parts of the housing system – notably the segmented private rented sector. It also strikes us how important it is to make the effort to establish these wider links between housing wealth inequality and issue like social mobility, asset-based welfare, health and well-being and the economy-wide effects of rising housing wealth.

But there are important gaps. While the wealth and assets survey and gold standard panel data are invaluable, we lack detailed micro evidence of rental markets and the behaviour of players within the complex markets locally. It also remains challenging to locate and understand the role of housing wealth within local and regional housing systems (in most cases, a detailed analysis requires building the local housing system model from scratch). We are a long way away from confidently examining housing needs and demand assessment models in such a way as to consistently work through the wealth inequality impacts. The key substantive gaps are many but include the need for more housing wealth research on:

- Studies that attempt to test the significance (and potential damage) of continued patterns of investment, policymaking and the ‘business as usual’ approach to housing across government but particularly in Treasury/devolved finance departments.
- Social mobility studies.
- The scope for behavioural economics to be applied to link economic and other quantitative studies in a more coherent fashion.
- Careful studies concerning intergenerational transfers/inequality, allowing rigorous analysis of valid comparison groups.
- Detailed micro representative analysis of private landlords.
- More rigorous work on the behaviour of older households with housing equity in terms of their wealth and spending choices against control groups without such assets
- More local and regional analysis of housing wealth inequality and its implications for local markets and policy responses.

The quantitative analysis in the Resolution Foundation should, of course, reflect, on the findings of the evidence review across the piece but we think that there are a number of important points to distinguish:

- To what extent is Scotland on trend with the UK and if not, why and where is it different?
- What can we say about sub-national patterns and impacts of housing wealth?
- What can we say about the housing wealth patterns reflecting specific important sub-groups and cleavages of Scottish society – and what are their wider implications?
- From the perspective of quantifying policy options, it is clearly important to understand which drivers and policy levers operate at the UK (or international/global levels) and which are Scottish?

Finally, the policy review indicated that there is an array of policy reform proposals which are often locked in to both considered and well regarded fiscal, wealth and welfare related programmes for reform (e.g. the IFS’ Tax by Design project or the life time work of Tony Atkinson). However, as Hills and Glennerster (2013) point out, what is possible as compared to what is highly unlikely politically remains a wide chasm to cross. The Scottish government has powers over local property taxation, personal income tax, property transactions taxes and aspects of social security powers (including the ability to set new self-funded benefits). They do not have power over investment taxation (including property), inheritance tax or VAT (half of which will be ‘assigned’ to Scotland).

If it wanted to, Scotland could replace council tax with a land value tax but there are strong reasons to expect caution – the devolved tax base is narrow and must be managed conservatively if it is to be balanced. While it may make sense in the long term to shift taxation to more fixed factors of production like land, so long as much of the country’s revenue is sourced from potentially mobile personal income tax and VAT – it is a brave finance minister who would increase taxes on land and property at this juncture. We do note, however, that there are other policy levers that could be useful, for instance, the more creative use of repayable financial transactions from HM Treasury (currently supporting Help to Buy in Scotland). Regulatory, planning and placemaking policies may also be important, over time. The point remains that creating the housing system that looks like the vision suggested in Scotland Performs, wherein housing wealth does not play the sort of roles we have documented in this report, remains challenging and something of a long term aspiration rather than something practical and realisable in the short to medium term.

Appendix

Table 1: Hits by keywords and databases

| Keyword/ Boolean string | SCOPUS | | WEB OF SCIENCE | |
|---|--------|------------|----------------|------------|
| | No | The oldest | No | The oldest |
| "housing wealth" | 387 | 1986 | 391 | 1988 |
| "asset-based welfare" | 86 | 2003 | 75 | 2004 |
| "homeownership-based welfare" | 3 | 2010 | none | n/a |
| "landlordism" | 57 | 1946 | 87 | 1938 |
| "home ownership" | 4,075 | 1923 | 7,173 | 1800 |
| "housing wealth" OR "asset-based welfare" OR "homeownership-based welfare" OR "landlordism" | 514 | 1923 | 543 | 1938 |

Box 1 Distributed references (pilot stage)

Allon (2010); Allon and Barrett (2018); Andre et al. (2018); Andre et al. (2019); Arrondel et al. (2019); Arundel (2017); Atalay et al. (2017); Bampinas et al. (2017); Begley (2017); Buiters (2010); Crawford et al. (2016); De Decker and Dewilde (2010); Delfani et al. (2014); Dewilde and Stier (2014); Do and Paley (2012); Fichera and Gathergood (2016); Fuller et al. (2019); Galster and Wessel (2019); Grobel and Hiller (2017); Hamoudi and Dowd (2013); Hamoudi and Dowd (2014); Hills and Glennerster (2013); Hubers et al. (2018); Kalman-Lamb (2017); Katsiampa and Beghazi (2019); Khalifa et al. (2013); Laaksonen et al. (2009); Lersch and Dewilde (2018); Levin and Pryce (2011); Lim and Zeng (2016); Lux et al. (2011); Lux et al. (2018); Mian et al. (2013); Nethercote (2018); Pryce (2012); Reuschke (2016); Sierminska and Takhtamanova (2012); Simone and Walks (2019); Tobing (2012); Walks (2016); Wind and Dewilde (2018); Wind and Hedman (2018); Wind et al. (2017).

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