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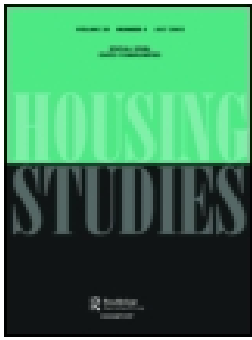
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Published version

ARCHER, Thomas (2020). The mechanics of housing collectivism: How forms and functions affect affordability. *Housing Studies*, 37 (3).

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To cite this article: Tom Archer (2020): The mechanics of housing collectivism: how forms and functions affect affordability, *Housing Studies*, DOI: [10.1080/02673037.2020.1803798](https://doi.org/10.1080/02673037.2020.1803798)

To link to this article: <https://doi.org/10.1080/02673037.2020.1803798>



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Published online: 20 Aug 2020.



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The mechanics of housing collectivism: how forms and functions affect affordability

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ABSTRACT

In countries worldwide, limited access to affordable housing is fuelling interest in collectivist solutions. Different organizational models are being developed to enable groups of people to own and control housing collectively. The benefits of such models have been widely promoted, not least in terms of delivering enhanced housing affordability for residents. However, evidence to support such claims is scarce and it remains unclear whether affordability is the product of collective forms and functions, or some other factor(s). To address this gap in knowledge, the paper presents findings from three case studies of English and Canadian housing collectives. Applying realist theories of causation, the processes affecting housing affordability are explained, conceptualizing two causal mechanisms which depict how organizational form, internal rules and regulatory activity, along with the unique role of the resident-owner, influence the setting of rents and prices. Further research is required to understand the prevalence of these mechanisms and their general application.

ARTICLE HISTORY

Received 29 March 2018
Accepted 17 July 2020

KEYWORDS

Housing; collectivism; causal mechanisms; co-operative; community land trust; affordability

Introduction

Housing collectives, as defined here, are organizations in which the ownership and control of housing is vested in the occupiers and/or the wider membership of that organization. This article explores if and how the forms and functions of these organizations affect the affordability of the housing they provide. In doing this the paper identifies and seeks to address a longstanding gap in causal understanding; how affordability is related to the legal and constitutional forms of collectives, as well as their internal processes and ways-of-acting.

Such housing models have gained prominence in recent years, across a variety of different countries and contexts (Mullins & Moore, 2018). Fuelling this interest in collective housing forms are diverse housing-related problems and grievances. These

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may relate to, for instance, insecurity of tenure, poor housing conditions or exclusion from certain forms of housing and/or certain locations. Perhaps the most prevalent of these grievances relate to worsening housing affordability, a global phenomenon which is in part the product of housing costs rising faster than earnings (Wetzstein, 2017). Recent research suggests that, across EU states, 11% of households are spending 40% or more of their disposable income on housing – and are therefore classed as being 'overburdened' by such costs – with an increasing proportion in arrears with their rents and mortgage repayments (The Foundation Abbé Pierre and Feantsa, 2016, 2019). In England and Wales the affordability of housing has worsened in all local areas since 1997 (Office for National Statistics (ONS), 2018a). A full-time worker, on a median income, would have paid four times their annual income in 1997 to purchase a house at median prices. In 2018 the equivalent ratio was 8:1. Furthermore, the rent-to-income ratio among private renters in Great Britain is significantly higher than two decades ago, particularly for those on lower incomes (Institute for Fiscal Studies, 2017). This highlights how simple ratios can often hide more acute problems for sub-groups (Meen, 2018).

In other parts of the world, such as the U.S, an increasing proportion of low income households are experiencing 'cost overburdens' (Organisation for Economic Co-operation and Development (OECD), 2019), as a growing private rented sector has experienced rising rental prices (Gudell, 2016; Rohe, 2017). In Asia similar dilemmas are apparent, as changes in tenure through privatization of housing, intensive urbanization and population growth are cited as key factors in worsening housing affordability (Kallergis *et al.*, 2018; Shi *et al.*, 2016). Whilst worsening housing affordability is not a uniform trend across the globe, it has become apparent in diverse contexts and is increasingly a subject of focus for academics and policy makers.

Governments have responded to these issues in different ways (Whitehead & Tang, 2019; Zhang & Ball, 2016), using subsidies and other levers to stimulate the supply of affordable housing. Less well-documented however are the collective responses of individuals and households who witness and experience these challenges at a local level and seek to remedy them. Hence, the focus of this article is on the direct action taken by people to own and manage housing collectively, and how they seek to address affordability concerns alongside other priorities.

Housing collectivism has been labelled differently in different contexts. In Europe and other parts of the world *collaborative housing* has become the prevailing descriptor, denoting a variety of self-organized forms of housing provision (Fromm, 2012; Lang *et al.*, 2020). In the UK the general concept of *community-led housing* has been developed to describe diverse organizational types, and to consolidate a fragmented sector (Community Led Homes, 2019). In other countries, such as China, these labels are not readily applied, as traditional models of collective land ownership have long provided the vehicle for housing provision in rural areas (Ho & Lin, 2003; Wang & Wang, 2014).

Such general concepts often homogenize different types of housing collective in terms of their governance, built form and operational models (Archer, 2016; Tummers, 2016; Vestbro, 2000). Tummers (2015, 2016) and Lang *et al.* (2020) show the plurality of organizational models that have emerged, and how this activity might

be better categorized and understood. Specific operational forms for housing collectivism are worthy of note. *Housing co-operatives* are organizations mutually owned by their members, committed to international principles of co-operation (Birchall, 1991; International Co-operative Alliance, 2015; Lang, 2015; Rowlands, 2009). *Community land trusts* (CLTs) are organizational forms established to own and control land and housing, and in which a wider set of stakeholders are engaged (Davis, 2010) in pursuit of the long-term stewardship of assets. *Co-housing* projects assert the importance of shared space, and social interaction between dwellers, often guided by other ethical or environmental concerns (Ache & Fedrowitz, 2012; Blandy, 2013; McCamant & Durrett 1994). The label 'cohousing' has taken on a more general meaning in certain contexts (Lang *et al.*, 2020), though the narrower definition is used here. Numerous other forms of activity might meet the definition of a housing collective set out above; *self-help or self-managed housing* (Bredenoord & van Lindert, 2010; Mullins, 2018, Tummers, 2015); *collective self-build* (Hamiduddin & Gallent, 2016; Wang & Wang, 2014), *co-ownership, condominiums and commonhold associations* (Christudason, 1996; Tracht, 1999; Wilson, 2001). These are just a few of the operational models that have emerged, all of which will operate differently in different contexts. Housing collectivism can also be nested within or run alongside other interventions; for instance, where community organizations combine housing acquisition and renovation with other changes in land use, employment and skills initiatives, and community development activity (for example, see Dudley Street Neighborhood Initiative (DSNI), (Sklar, 2010). In Scotland, community bodies have been given powers to purchase large landholdings and estates, through a Right to Buy land (Scottish Government, 2018), with the improvement and management of housing often part of a broader plan for land use and economic development (Highlands and Islands Enterprise (HIE), 2017).

Across these organizational types commonalities emerge, as residents and members seek to own and control housing for the benefit of a defined group of people. Advocates and scholars often situate housing collectivism in a longstanding set of political and ideological debates, focussing on the principle and practice of collectivism (Chatterton, 2016; Thompson, 2020; Vestbro, 2000; Ward, 1985). This explains the central use of the term 'collective' throughout this study, as it reconnects the practice back to its formative roots (Archer, 2016), and emphasizes a key feature of such initiatives; that individuals act in concert through a single body or entity.

Irrespective of the labels used, these forms of collective provision and management of housing are increasingly prominent in policy discourse. Influential housing texts (Madden & Marcuse, 2015) have argued for the creation of community land trusts (CLTs), not only as a practical solution to housing shortages, but also as a pre-figurative remedy to the financialisation and commodification of housing (Aalbers, 2016; Fields, 2015). The appeal of housing collectivism to policymakers of very different persuasions perhaps lies at the heart of its growing popularity (Balmer & Gerber, 2018).

Despite the popularity of such collective models, evidence of their impact on housing affordability is limited. Rarer still are studies which reveal the causal connection between collective forms and functions and any outcomes they secure for residents.

Saegert & Winkel (1996, p. 545) noted two decades ago that 'the success of [housing] co-ops is anecdotally attributed to tenant participation and control... [but] tests of this hypothesis are scarce'. This gap in knowledge has remained unaddressed (Martin *et al.*, 2016; Rowlands, 2009). This paper seeks to partially remedy this by focussing on one specific postulated outcome of housing collectivism; housing affordability. Two questions are addressed (1) to what extent is the housing provided by collectives affordable to their defined group of beneficiaries? (2) To what extent is this a consequence of collective forms and functions, rather than other factors? These questions are answered through a case study approach, assessing affordability and related processes in two UK housing collectives, and one Canadian collective, drawing on primary and secondary data collected during 2013–2015.

The paper begins with a review of literature concerning the outcomes of housing collectivism, focussing on claims about housing affordability. Gaps in current knowledge and the fragilities of causal claims about housing collectivism are then explored. The study methods are then discussed, before presenting empirical data from three collectives to explore if and how affordable housing is offered by those organizations. The final section sets out a series of mechanisms that may explain some of the observations made.

Housing collectivism and the affordability of housing

The literature in this field contains recurring themes about the benefits (and to a lesser extent costs) experienced by residents and members of housing collectives. A small number of studies have sought to identify and categorize all the outcomes and benefits purported to arise from such housing forms (Archer, 2016; Goulding *et al.*, 2018). Literature spanning several decades suggests that those living in and around such schemes may experience a high quality of housing design and excellent housing conditions and services (Clapham & Kintrea, 1992; Mändle, 2013; Rowlands, 2009; Stevenson *et al.*, 2016). Other scholars and commentators have suggested that these models provide improved physical security, security of tenure and feelings of ontological security (Commission on Co-operative and Mutual Housing (CCMH), 2009; Hackett *et al.*, 2019; Haffner & Brunner, 2014; Bunce, 2012; Chatterton, 2014). Residents may derive a range of psychological benefits associated with collective endeavour, and the inherent participation/inclusion in groups and processes to control that housing (Clapham & Kintrea, 1992; Gooding, 2015; Lang *et al.*, 2020, Moore & McKee, 2014; Saegert & Winkel, 1996; Satsangi, 2011). Collectives engaging in more than just housing provision may also create a range of non-housing related benefits in the forms of public space improvements or creation of valued services and facilities (Aiken *et al.*, 2008; Aird, 2009; Archer *et al.*, 2019; Moore, 2014). Assessments of the community buy-outs in Scotland, for instance, suggest that collective ownership models resulted in additional investment in the local housing stock, alongside increasing local populations and stimulating job creation (Community Land Scotland, 2014), though the pattern across the buy-outs varies significantly.

Such outcomes may be offset however by costs in terms of the time and energy demands placed on members of collectives, who often work in a voluntary capacity

(Heywood, 2016; Moore, ; The Young Foundation, 2011). This can sometimes be exacerbated by the unequal distribution of workloads (Cairncross *et al.*, 2002; Scottish Government Social Research, 2015). Individual costs may also be felt through involvement in collective governance and decision making, as the process can create stress and anxiety (Bailey, 1990; Wasylish & Johnson, 1998). Furthermore, additional pressures associated with a lack of funding and resources can give rise to negative financial outcomes if those organizations cannot stay solvent (Scottish Government Social Research, 2015).

Aside from these costs and benefits, a specific set of propositions are made about the potential for collectives to enhance the affordability of housing (Czischke, 2018; Hackett *et al.*, 2019; Moore & McKee, 2012). For instance, studies have looked at the affordability of rental prices in housing co-operatives and CLTs (Martin *et al.*, 2016; Reynolds, 2018; Rowlands, 2009). Historic but detailed research in the UK by Rowlands (2009), showed that the average rent charged by housing co-operatives in his sample was £73.80 per week, with the English average for private rented housing at this time being £153 per week (Department for Communities and Local Government (DCLG), 2011). The distribution of the sample across different markets makes it difficult to judge whether at a local level these rents are affordable, but favourable national comparisons with both private and social rented properties suggest that co-operative tenants experienced high levels of affordability. More recently, Martin *et al.* (2016) showed varying levels of housing affordability in different housing collective schemes in England, revealing important contextual drivers in the form of land costs and access to funding and finance. In Canada, government investment in co-operative housing led to rigorous evaluations of affordability. The Canadian Mortgage and Housing Corporation (CMHC) suggested that, in the early 2000s, co-operative housing was providing accommodation at substantially lower ‘shelter cost to income’ ratios than the private rented sector (Canadian Mortgage and Housing Corporation (CMHC), 2003, p. ii).

Housing collectives might also secure affordability through lowering the cost of homeownership or equity held in housing. This is a model widely used by CLTs in the United States (Davis & Demetrowitz, 2003; Davis & Stokes, 2009; Hackett *et al.*, 2019). In their assessment of the affordability of Champlain Housing Trust (CHT) homes, Davis & Stokes (2009) note;

The average CHT home was affordable to a household earning 56.6% of AMI [area median income] on initial sale. On resale, it was affordable to a household earning 53.4% of AMI – a 5.65% gain in affordability (Davis & Stokes, 2009, p. 2).

Such studies show how CHT generated equity returns for residents, which were \$12,500 on average for each property resold. This meant that the majority of people leaving CHT homes entered the private market for housing (Davis & Stokes, 2009).

Some of these financial gains are secured as collectives can access finance which residents on low incomes would not have been able to access individually (Paterson & Dayson, 2011). Through such institutions it may also be possible to use a variety of instruments to secure land collectively for development at lower than market cost (Aird, 2009; Bunce, 2016; McStotts, 2004; Moore, 2014). In England CLTs have increasingly acquired rural exception sites at sub-market values (Paterson & Dayson,

2011), or received transfers of property at nil cost, in order to provide affordable housing. Of course neither of these approaches is unique to collective forms of provision. Scholars have also identified the potential for organizations such as housing co-operatives to affect affordability in the wider housing market, as an externality of their actions (Mändle, 2013).

Despite this evidence, collectives can create a range of negative financial outcomes. Conaty *et al.* (2003) note how certain types of housing collective can be susceptible to financial losses, as fluctuations in wider markets affect land values and debt repayments. If interest rate fluctuations inflate mortgage repayments to the extent that they cannot be repaid, then those within collectively financed schemes could lose their home through repossession. This is irrespective of whether members individually can make their share of the repayment. And yet at the same time, self-interest can create inequities in financial gains as some members can seek to 'carpet bag' the assets of collectives for private gain (Morris, 2012, p.5). Whilst advocates have suggested collective models are not disproportionately prone to 'problems of personal and self-interest' (CCMH, 2009, p. 52), the evidence above suggests that, in balancing collective and private benefits, individuals can often lose out financially as a result of the self-interest of others.

This highlights a previously neglected feature of the experiences of those within collectives; that benefits and costs can be traded off against each other. For instance, lower rents and high quality housing and services might be secured through participation of residents in housing management, but this may carry the potential for significant time and energy demands, or increased stress from working closely with others. Hence, affordability as an outcome may not be achievable without other sacrifices. Understanding these cost-benefit trade-offs hints at the possibility of identifying deeper causal processes.

Linking processes and outcomes within housing collectives

Causal claims relating to housing collectivism have often failed to depict the connection between observed and purported outcomes and how these organizations work in practice. Hence, arguments for housing collectivism often adopt the logic form *if C then E*, with C being a housing collective, and E being a range of resultant effects on groups or individuals. The causal processes or mechanics through which C *leads to* E are often left opaque. Where causal processes are described it is often in general terms, in the logic form *if C then E, as related to characteristic X*, with X being some general feature of collectives such as 'control of land' (Paterson & Dayson, 2011, p. 10). In essence, there are few processual accounts that get beyond simple causal claims to a deeper understanding of the mechanics of collectivism. The works of Bengtsson (2000) and others (Sørvoll & Bengtsson, 2020) are notable exceptions. Here mechanisms which generalize the processes taking place within co-operative and collaborative housing are built from prevalent types of beliefs, behaviours and actions. This is valuable in understanding how solidarity functions within collectives, and affects relations with those outside, and also how norms are established. It is perhaps of less use when trying to understand the mechanisms behind specific patterns of

benefits in these housing forms. This gap in understanding has been consistently identified by different scholars. Satsangi & Clapham (1990) cast doubt on the comparative benefits of housing co-operatives, given the difficulties in disentangling the socio-economic characteristics of residents from organizational form. Rowlands, in his research into mutual housing organizations (2009), articulated this causal gap powerfully when he noted;

... gaps remain, critically around ... The contribution of mutualism and co-operation to the benefits witnessed in these organizations. It is critical to understand how these values influence day-to-day activity, process and relationships. (Rowlands, 2009, p. vi).

Meeting this gap in understanding demands not only a philosophically informed position on causation, but also a methodological approach to move from empirical data about outcomes (in terms of affordability), to a causal account of how these outcomes occurred.

The starting point for this exploration of causal processes is the adoption of a realist account of cause and effect. It is argued that causation is not a construct or subjective ordering of the constant conjunction of events (Hume, 2000[1748]), but is a product of the structure of the world beyond subjective experience (Bhaskar, 2008[1975]; Sayer, 2010). But human access to this material world, for instance via our senses, is fallible and therefore a means of assessing the veracity of our insights is required. The goal becomes theories which set out expectations about the world which then become realized, demanding more than just the prediction of outcomes. What is required is a description of the processes by which change occurred (Sayer, 2010). This realist position underpins an ontology which sees change in distinctly processual terms, based on the interaction of material objects, rather than the product of sequenced events. As such '... causality concerns not a relationship between discrete events ("cause" and "effect"), but the "causal powers" or "liabilities" of objects or relations, or more generally their "ways-of-acting" or "mechanisms"' (Sayer, 2010, p. 71).

Such an understanding is particularly challenging to operationalize when dealing with complex and open social systems. However, if repeated outcomes emerge from relatively stable conditions – which comprise similar entities in relatively durable relations to one another (Harré, 1993) – it might be argued that repeated processes are underwriting the outcomes observed. If members of a housing collective want to charge rents at 50% of the market rate – and have the resources and decision making structures to do this – and then they subsequently charge those rents at 50% of market rates, one might argue that a key set of conditions have been isolated which caused that outcome. Some of these conditions might not have been *sufficient* in themselves to create low rents, after all having a desire for low rents is not enough in itself to realize this outcome. However, these conditions may be *necessary* elements of a wider 'complex condition' which was *sufficient* for the end result of low rents to be achieved (Mackie, 1965, p. 246).

Whilst some of the more significant causal factors might be observed, the full causal picture will likely remain opaque. The view held by residents that low rents should be charged will have formed (or been caused by) a myriad of historical events, resource constraints and so on. Having the financial capacity to sustain low rents

may be the result of causal chains stretching back into the distant past, and to the agency of those far removed (in time and space) from the collective itself. Hence, a causal analysis of collectivism demands the prioritization and simplification of causal processes, to strip back the complexity of varied causal activity to capture an abstract or general representation of change. It also demands accepting that some causal processes will remain hidden or little understood.

To capture significant and repeated causal processes the researcher may apply realist ideas concerning causal mechanisms. These might be defined as;

... a structure performing a function by virtue of its component parts and component operations and their organization. The orchestrated functioning of the mechanism is responsible for one or more phenomena (Bechtel & Abrahamsen, 2005 p. 423).

As understood here, mechanisms are a means to explain (in general terms) the functioning of entities organized within a relational structure which creates distinct ways of acting (Hedstrom & Ylikoski 2010). Rather than give these mechanisms a distinct ontology (Bhaskar, 2008[1975]), mechanisms may simply be understood as '... a stripped down picture of reality... that gives the logic of the process that could have produced the initial observation' (Hernes, 1998, p. 28).

When applied to housing collectivism, these approaches to causal explanation offer the possibility of assessing if and how outcomes for residents are affected by the organizational form, as well as the function of its internal components. Processes emerging from interactions with, for instance, the wider property market, government bodies and banking institutions, may exert powerful influences over collective processes, so any internal mechanisms will only depict a part of the causal picture.

Study design and methods

This paper draws on data from the author's doctoral research (Archer, 2016). Using data from the detailed case studies undertaken, supplemented with additional secondary data, it has been possible to explore the relationship between housing affordability and the forms and functions of collectives. This research has not sought to compare those cases to one another, or to undertake a comparative analysis of their housing systems (Kemeny & Lowe, 1998; Stephens, 2011). Rather, each case was studied individually, within its unique geographical and historical context. Retroductive techniques (Danermark *et al.*, 2002) were then used to devise mechanisms which offer general causal explanations for processes seen in cases (Sayer, 1992, p. 107). This analytical approach and sequence is important, and is explained further below.

Case study research offers a means to explore and establish the veracity of causal relationships in a small number of cases (Gerring, 2007). An alternative approach might have been to apply statistical methods, assessing causal relationships by trying to quantify variation in effects from identified (or assigned) variation in causes (Pearl *et al.*, 2016; Rubin & John, 2010). However, it was felt that this would be unlikely to yield sufficient data about the processes, practices or events taking place *within* collectives to explain *how* certain levels of affordability are secured.

Case selection was guided by the desire to create diversity in case characteristics (Gerring, 2007), using existing literature identify factors associated with a collective's

development (Archer, 2016). The decision was taken to select a diverse set of cases based on the following characteristics; (1) the legal and operational models of the organizations, (2) their stages of development and (3) their operating environments and national contexts. Whilst establishing variation in organizational types could be achieved by selecting, for instance, CLTs, co-operatives and other operational forms, and variation in the stage of development could be achieved by selecting cases pre and post-property acquisition, accounting for contextual differences was more challenging. To draw on the author's experience and knowledge of housing collectivism in the UK, a decision was made to focus the study on UK housing collectives, but to select one case in a different national context. This would help to explore the significance of national contextual factors in the evolution of cases. If cross-case patterns were observed for cases in different national contexts, and mechanisms developed which explain events across diverse places, then one might argue that processes have been identified which transpire irrespective of certain contextual factors.

A Canadian housing collective was selected alongside the UK cases for specific reasons. Canada provided some important differences to the UK in terms of government policy and funding regimes for housing collectives, set within a very different system of affordable housing provision. Despite this, the two countries operate similar legal provisions for bodies such as co-operatives, so when the concept of 'co-operative' was used, a similar phenomenon was being denoted which was bound by similar legal rules, values and so on. Including the Canadian case, it was hoped, would reveal the role of certain contextual differences in the development and operations of collectives.

These considerations led to the selection of three cases of different operational types, in different phases of development and in different settings; a CLT based in a deprived neighbourhood in a northern English city at an early stage of development (Granby 4 Streets CLT); a resident owned and controlled housing association in a high value market in southern England, developed in the 1990s (Walterton and Elgin Community Housing), and a federation of housing co-operatives (structured within a condominium for social purposes) in an area of Montreal in Canada, which was created in the 1980s (The Milton Park Community or CMP).

To calculate the affordability of housing provided by the collectives, a range of measures and approaches were considered (Meen, 2018; Resolution Foundation, 2013). Two were eventually chosen to reflect demand and supply-side issues; (1) a general measure that assessed the proportion of local household incomes required to secure housing, and (2) a relative measure that assessed the cost of housing provided by the collectives compared to the other local housing options. The assessment used information provided by the collectives, alongside data on local incomes and house prices/rents obtained from the UK Office for National Statistics (2014), Urban Big Data Centre (2019), Statistics Canada (2016a, 2016b) and the Canadian Mortgage and Housing Corporation (2015). The base geography for this exercise was census tracts for the Canadian case, and middle super output areas (MSOAs) for the UK cases. Due to differences in the housing tenures in each collective, and limits on the information held by those organizations on prices/rents, quantitative data was supplemented with qualitative testimony from interviewees to validate and enrich assessments of affordability (Bramley, 2012). Attempts were made to account for property size when making comparison to other local housing options,

though data at low level geographies often did not contain this information. To make comparisons between the collective's housing and that within the neighbouring area often meant sacrificing this granularity in terms of affordability by property size. Both measures use average (mean) values for income, rents and prices which may hide significant variation at the household and property level, and mask unaffordability for certain groups such as those on low incomes or first-time buyers (Affordable Housing Commission, 2019; Meen, 2018). Simply using the median values is no perfect solution either, as this measure may also miss unaffordability issues for certain income groups (Gan & Hill, 2009). Finally, the singular focus on affordability may mean other important facets of housing are ignored. For instance, a property may be affordable on a given income, but if it is not fit for habitation then the outcome is not desirable (Affordable Housing Commission, 2019). Whilst the measures used in this research are far from perfect, the approach used here is more detailed and rigorous than any previous effort to understand affordability in this niche sub-sector of the housing system.

The study draws on interviews undertaken with members and residents in each collective's housing, as well as staff and external advisors and stakeholders. These interviews took place between 2013 and 2015. Residents were identified through a mixture of random sampling and open calls for participation. Members, staff and other advisors and stakeholders were identified through searches of case-related documents and contacted directly. A total of eight interviews were conducted in relation to Granby CLT, 11 for Waltherton and Elgin Community Housing, and 12 for The Milton Park Community. This data was supplemented by structured reviews of historical documents relating to each collective's development, as well as business plans and other internal documentation. This data was collected and then coded and analyzed in NVivo, using a Framework approach to data analysis (Ritchie & Lewis, 2003) to identify within and cross-case patterns.

The key retroductive step entailed looked at similar and repeated observations in the data to develop mechanistic descriptions to explain within and cross-case patterns. This was a creative process, subject to various dilemmas concerning the descriptive and visual form a mechanism should take, and its capacity to capture differentiated processes in the cases. Empirical research to establish causal mechanisms in social settings is relatively rare (Bygstad & Munkvold, 2011), and the mechanisms that emerged are more akin to processual models, different in scope and generality to the celebrated causal mechanisms of other scholars (for instance, Granovetter, 1978 and White, 1970), and from the social mechanisms developed by Bengtsson (2000) to explain collective action in housing co-operatives.

The analytical movement from empirical data, to general propositions and explanatory mechanisms is synonymous with realist approaches to causal analysis. The sections below are structured in such a way as to follow this sequence.

Exploring the mechanics of housing collectivism and the setting of rents and prices

The processes affecting affordability in the selected cases are discussed in three subsections below. Taking each collective in turn, a brief summary of their development

is offered, before exploring evidence as to the affordability of their housing. Two measures of affordability are used for this; a general measure which states that rents/prices should constitute no more than 35% of average net household income (Affordable Housing Commission, 2019; Resolution Foundation, 2013; Shelter, 2015); and a relative measure comparing the cost of housing in each collective against other housing locally. Having assessed the levels of affordability in the case, the processes affecting the setting of rents and prices are then explored, drawing on a range of interview testimony and documentary evidence.

Walterton and Elgin Community Housing (WECH)

Centring on a small neighbourhood near Paddington in London, WECH was born through efforts to resist the redevelopment of the Walterton and Elgin area in the 1980s. Following a period of intensive community organizing, direct action and lobbying against Westminster City Council (WCC), WECH was formally constituted (WECH, 2006). In 1992 the organization used newly introduced Tenant's Choice powers (HM Government, 1988) to acquire 600 properties in the area from WCC. Along with this transfer they secured a large dowry from the local authority, and additional government funding. WECH then began refurbishing the acquired stock, redeveloping problematic high-rise accommodation, and in time constructing new housing units. At the point of data collection, WECH's stock was made up of a mixture of rental housing and leasehold properties.

Affordability of housing in WECH

Household income data was gathered for the middle super output area (MSOA) in which the organization operates (Office for National Statistics (ONS), 2018b). This suggests that the average net income before housing costs was £590 per week in 2013/14, equivalent to approximately £2,650 per month. Applying the general measure of affordability outlined above, housing would be affordable to local households if it cost no more than £928 per month.

WECH charged rents of £373 and £666 per month in 2014, depending on the property size. Hence all WECH properties would be affordable to households on average net incomes in the MSOA, with even the largest properties being charged at only 25% of local household incomes.

Relative assessments of affordability are also instructive. Private rents for the MSOA covering Walterton and Elgin averaged £1,711 per month in 2014 (Urban Big Data Centre, 2019). Such rent levels were not affordable to the average household in the MSOA, who would need to spend over 60% of their income to afford these rents. It should be acknowledged that some residents qualified for WECH housing in light of their lower incomes, for instance, through a process of nomination by the local authority. Hence, comparing WECH's rents to those of other affordable housing providers in the area offers another dimension on affordability in relative terms.

As [Figure 1](#) shows WECH charged significantly lower rents (for most property sizes) compared to other affordable housing providers in Westminster during the study period. The levels of affordability demonstrated by applying these relative and

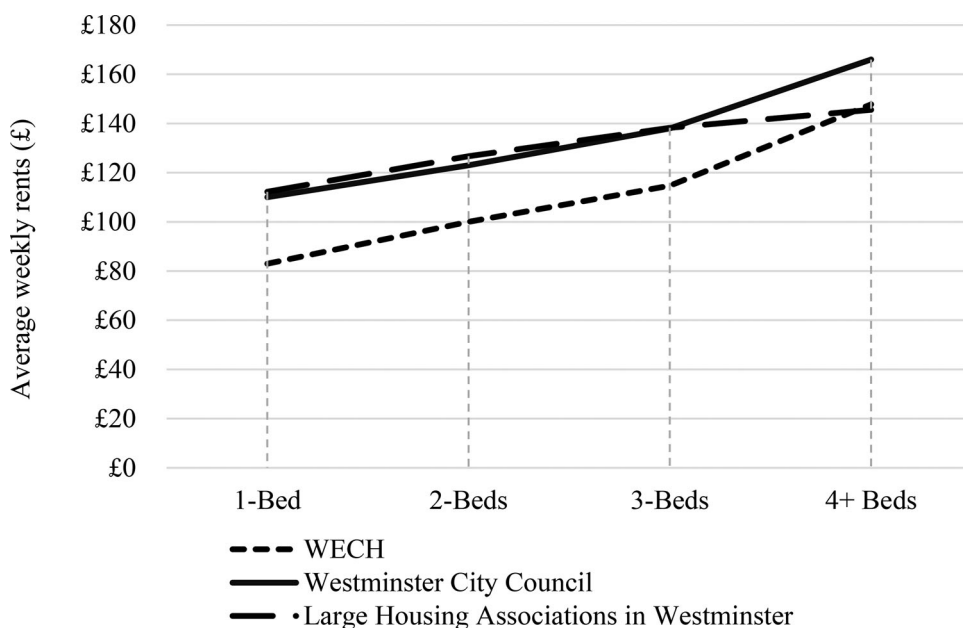


Figure 1. Comparisons of WECH average weekly rents (2013–14) with other local social housing providers. Source: WECH rent data, 2015; HM Government 2014a, 2014b.

absolute measures were corroborated in interviews with residents. Diana, a WECH resident who had relatives living in social housing provided by another landlord, offered the following assessment:

The rents are drastically low. I mean my rent here is about £109, my mum has got a two bedroom and hers is like £180 a week. Compared to Westminster Council, the rents are kept very low (Diana, WECH tenant).

WECH has, historically, sought to limit rent increases in line with the Retail Price Index (RPI). The Chair's Foreword to the 2014 Annual Report (WECH, 2014), states that for the first ten years of WECH's operation rents increased in line with this inflation index, and after that it had never increased by more than one per cent over RPI. Secondary data analysis on the rents of other social landlords (HM Government, 2014a, 2014b) does not reveal the same pattern. WCC's rent increases for their own stock were in excess of one per cent over RPI every year between 1998 and 2014 (with the exception of 2000 and 2011). For a number of years, WCC's rents increased by double the percentage increase in RPI.

The processes affecting affordability in WECH

The affordability of WECH's housing owes much to external events leading up to the organization's formation. Legislation introduced in 1988 gave tenants the power to force the transfer of property to a new landlord. When this was successfully applied by WECH it endowed the organization with housing stock, and the subsequent dowry

enabled them to invest in it improvement. This was catalyzed by, and further fuelled, demand from the local community for local ownership and control of housing. External advisors helped devise workable financial plans and garner support from the relevant regulatory bodies WECH would need to become a registered landlord.

Despite these external factors, WECH's low rents have persisted as a result of a governance system which privileges residents' views, and because of the enduring commitment to low rents. WECH's governing documents state that the majority of the WECH Board must be resident in its housing, enabling this group to exert a decisive influence on financial decisions. WECH's governing documents prescribe a set of relations between residents, along with powers in the decision-making process, which both empowers and responsabilises those residents. An individual's desire for low rents has to be balanced against their concerns for the continued sustainability of the collective;

... because everybody knows everybody else, and someone said 'well we have to put the rent up' because that was the minimum amount we wanted to, it's such a family orientated type of thing that it works (Barbara, WECH resident).

Residents seek to control rent levels to ensure they are kept as low as possible. However, this is tempered by a desire to ensure the collective's financial sustainability is not jeopardized. When it is decided that rents must be raised this is accepted as a collective decision. When there is no urgency to raise rents then residents' representatives can exert pressure to keep rents low, and it is this process that is central to achieving the levels of affordability observed. Contrasts may be made with housing providers that have embraced a more financialised model, prioritizing stock expansion and growth over discounting rents for existing residents (Smyth, 2019). WECH imbues residents with specific powers which are causally significant in the setting of rent, and positions them in a unique relational structure. This influences how much rents are discounted, and how much the organization focuses on reinvestment or growth. The collective's rules and internal relations operate as a form of mechanism, to support decision making which makes affordability a high priority.

The historic commitments to low rents which were made when WECH was formed have become embedded in organizational culture, shaping the expectations of both residents and staff. The original ideal of collective ownership has proved enduring, with residents seeking to ensure financial surpluses are used to suppress rental prices:

... look at its balance sheet, that's used to hold down rents, through taking ownership of the land and making sure that its first priority is existing residents (Dylan, WECH supporter).

The nature of WECH's organizational form, and how it functions in practice, affects decisions about the use of surpluses. A fundamental priority is to use those surpluses to benefit current residents, rather than to pursue other goals such as major stock expansion. In reality WECH has had to balance these dual concerns, as stock improvement and densification schemes create new financial pressures (WECH, 2017). Causal processes become apparent through an analysis of the empirical data, enabling us to retroduce certain mechanisms which might explain them. A

combination of resident powers and collective decision-making, alongside enduring commitments to low rents, has clearly driven specific outcomes and organizational ‘ways-of-acting’ (Sayer, 1992, pp. 104–105).

Granby 4 Streets CLT

Granby 4 Streets CLT (henceforth Granby CLT) operates in an area to the south of Liverpool city centre. It was formed in 2010, following several years’ of vehement resident opposition to the demolition and redevelopment of housing in the area. As various plans for redevelopment failed, opportunities emerged to explore ownership and refurbishment of vacant housing through a local CLT. With a mixture of private finance and grants, the CLT focussed its initial efforts on one street with a high number of empty properties, acquiring units from Liverpool City Council at low cost. The CLT reconfigured and refurbished these properties, with the first phase of activity bringing 10 units back into use; five were offered at affordable rent levels, and five for low cost homeownership.

Affordability of housing in Granby CLT

The different tenures of property offered by Granby CLT make assessments of housing affordability more complicated than WECH. The average household income (before housing costs) in the MSOA covering most of the Granby area was £320 per week in 2014 (Office for National Statistics (ONS), 2018b).¹ Using our general measure of affordability, this would make housing affordable if it was rented at £112 per week or less. The rental properties offered by the CLT were part-funded by government subsidy, bringing the requirement that rental prices would be set at a maximum of 80% of market rents. In 2015 the CLTs rented properties – all two bedrooms in size – were rented at £104 per week (Liverpool Echo, 2015). This made them affordable to local residents at 33% of average household incomes; below the general measure of affordability.

To assess the affordability of the CLT’s homeownership properties demands an estimation of yearly mortgage costs. If buyers took out a 30 year mortgage at 75% loan to value, paying both the principal and interest at four per cent, then this would equate to housing costs of £4,300 per year, or £83 per week. Such costs would constitute 26% of net monthly household income for residents in the MSOA. This would, however, require buyers to have access to a sizeable deposit in order to secure these levels of affordability.

Relative assessments can be made through comparison to private rents, social rents and sale prices for housing in the MSOA and wider district. Average private rents for the MSOA covering the Granby area in 2014 were £515 per month, or £114 per week (Urban Big Data Centre, 2019). Given the CLT was charging £104 per week for its rented properties, these were more affordable than local private rents, accepting that the CLT was only offering two bedroomed properties and therefore variations in property size may have affected levels of affordability. Comparisons with social rental prices were not as favourable however. Average social rents were not available at the MSOA level, but looking across the Liverpool district, these stood at £83 per week

across all property sizes in Liverpool in 2015 (Department for Communities and Local Government (DCLG), 2016).

The CLT's homeownership properties were sold outright with a resale price covenant. This fixed the initial sale price of the properties (and future resales) to median wages. The first of these properties was sold in 2017 at a price of £99,000. For the MSOA in which these homes are located, the average price of terraced property in 2017 was £115,000 (Office for National Statistics (ONS), 2019), some £16,000 more expensive than the CLT's sale prices. Properties in the Granby area have been included in the city council's Homes for £1 initiative, which allows households to purchase a vacant property for £1 on condition of a minimum investment of £40,000 to refurbish it. Without data on actual investments, and the value of sweat equity, is not clear how the affordability of these properties compares that of the CLTs.

The processes affecting affordability in Granby

Given Granby CLT was still in its infancy when data collection took place – predating the completion of its housing – the processes affecting affordability were not as clearly observed. Despite this, interviews and observations revealed sets of shared beliefs and organizational processes which help – at least partly – explain the linkages between affordability and organizational form and function. For many of those initially involved in the development of the CLT the primary objective was not the provision of affordable housing per se, but protecting existing properties (including their own) from acquisition and demolition. This is not to underplay residents' concerns about future affordability if redevelopment had taken place – an often justified worry (Cole & Flint, 2007) – it is merely to say that for existing residents;

The biggest thing is the lack of control they've felt they've had over what's happened in their area over the last couple of decades... this is people power, this is us taking back control in something that has a formal structure (Avril, Granby resident and Board member).

Through localized control of assets, and then through the refurbishment and provision of those assets as affordable housing, residents saw the potential to retain the historic role of the area in housing people from a diverse range of backgrounds and often on low incomes. This was expressed by one interviewee as the desire to 'keep this area' (Catherine, Granby resident and CLT Board member) so it benefitted such groups. The legal form adopted provided the basis for this;

... it's not just about ten houses for any of those residents, it's about community and getting community benefit (Helena, Granby CLT supporter and Board member).

Members of the CLT had clearly internalized some of the legal concepts defining the organizational form of the CLT. As a 'community benefit society' (Financial Conduct Authority (FCA), 2015, p. 1), the CLT is rule-bound to identify and deliver benefits to a specific community within a geographic area. The quotation reveals how the organization's legal form had influenced members' views on the purpose of the organization, how it should operate and who it should benefit.

Unlike the other cases, many of the CLT's protagonists were not housed in the CLT's properties. They would not be direct beneficiaries of the CLT's activities in

terms of access to new affordable housing, though it was accepted that improvements to empty properties would raise all asset values locally. One interviewee reflected that the value of local housing had been 'down to the cheapest in the country' and that 'you couldn't leave if you wanted to' (Shirley, Granby resident and CLT Board member), conveying a sense of being caught in an equity trap. So whilst some personal benefit may be derived from raising asset values, most CLT protagonists occupied a different position to the resident-owners seen in the other two cases, being invested (psychologically and financially) in the wider area in which the CLT operates. Strong social objectives and the desire to resist gentrification explains why activists demanded *all* housing offered by the CLT was affordable. This is implicit in the stated desire to 'keep this area', in order to prevent acquisition of property by those seeking financial gains. The combination of organizational form and resident/member motives has driven a way-of-acting which leads the CLT to offer housing at prices lower than the local market. The legal parameters of a CLT – and members' interpretation of how this should be operationalized – meant the objective to retain the character and function of the area could be met through a focus on affordable housing. As with WECH, the blending of rules, values and control in decision-making hints at mechanisms which may be underwriting these processes.

The Milton Park Community (CMP)

CMP is based in an area adjacent to the financial district in Montreal, and is composed of 15 individual housing co-operatives (providing over 600 units of housing). This is in addition to several other non-profit bodies. These organizations are all co-owners of CMP which is structured as condominium (Kowaluk & Piché-Burton, 2012). The housing co-ops and other bodies are guided by a Declaration of Co-ownership which tightly governs their use of property, rent setting and allocation of housing (Altshul, 1989, p. 3). Sited close to downtown Montreal, local land values and property prices are high, with rents and homeownership unaffordable to many. Developer's plans to demolish and rebuild the blocks in the 1960s were resisted by residents, sparking the formation of various community organizations and representative bodies. As the developer's plans stalled, and with support from federal and provincial governments, residents formed housing co-operatives to own and renovate the housing. CMP sets the rules which govern the use of property in the area, ensuring that it cannot be sold on the open market, and that various measures are employed to affect access to housing and affordability.

Affordability of housing in Milton Park

Applying the general measure of affordability reveals that CMP housing was highly affordable on local incomes. Average household incomes (after tax) within the census tracts covering the Milton Park area² were approximately \$35,000 per annum in 2015, equivalent to \$2,950 per month (Statistics Canada, 2016a, 2016b). Our general measure suggests that housing would therefore be affordable at no more than \$1,033 per month.

No central data on housing co-op rents were kept by CMP, and lettings were not publicly advertised. However interviews with residents highlighted the differences between their rents and prices in the local private rental market. Mary, a co-op resident, suggested that her rent was 'a third-to-a-half of what one would normally expect to pay'. Similarly, Camille, a resident of a co-op since the mid-1990s suggested that private rents locally were 'three times higher' than her own. Units in adjacent blocks that were not in CMP ownership were said to be being rented for '\$1000 a month at this time' (Alan, Milton Park resident). Canadian Mortgage and Housing Corporation (CMHC) (2015) suggest that, in 2015, private rents in the local zone covering Milton Park were \$1,413 on average for a two bedroom property. If it was the case that residents in CMP were paying a third of local private rents, then this would equate to \$470 per month. This figure of \$470 is well beneath the 35% of income threshold calculated above (£1,033). In relative terms the collective's housing is far more affordable than local private rents being charged at an average of \$1,413 for two bedroomed units. The city of Montreal does provide subsidized 'low-rent' housing, which is priced at 25% of a household's income (Office Municipal D'habitation de Montreal (OMHM), 2016), but comparisons with this are not appropriate. This stock is small in scale, constituting only one per cent of total dwellings (Office Municipal D'habitation de Montreal (OMHM), 2016), and targeted specifically at older people.

The processes affecting affordability in Milton Park

The affordability of housing in Milton Park is, at least in part, the product of the participation of co-op residents in the maintenance and management of that housing. Reliance on the voluntary time and effort of residents to perform these functions has removed the need for paid staff, thereby reducing expenditure. Wider national studies of housing co-operatives in Canada have corroborated this, suggesting these organizations incurred 14% lower operating costs than other non-profit rental housing (Canadian Mortgage and Housing Corporation (CMHC), 2003, p. 33).

Whilst this lowering of operating costs creates the potential to charge lower rents, the decision to do so is shaped by a variety of other rules and operational restrictions. The rules governing CMP and the co-ops prevent housing from being sold on the open market, insulating it from inflationary pressures or attempts to extract surplus value. If attempts are made by co-ops to sell their property, it has to be offered to the other co-ops and non-profit organizations within CMP first, with the method used to calculate value ensuring a sub-market price. The additional income restrictions arising from allocation rules, and the reservation of properties for those on the lowest incomes, provide a further constraint on rental prices.

The organizational form of CMP and the co-ops, and the rules that govern how they function, play a crucial role in keeping rents low. This framework of rules means that any decisions about increasing or decreasing rents are based on allocation requirements (to low income households) and the co-ops' current and future running costs. With each co-op's mortgage coming towards its term at the time of data collection, future rents are likely to be set at levels corresponding with their use-value, and without pricing-in returns to lenders.

A further factor contributes to low rental costs. Residents are both co-owners of property and inhabitants of the housing; they collectively hold the power to keep their rents to a minimum. Residents active on the co-op's Boards have an incentive to minimize rents, because it will be reflected in what they will personally have to pay. This asserts a recurring theme throughout the cases; that the governance model and positionality of resident-owners leads to certain decisions (and decision making processes) that are distinctive to other forms of housing provision, *and* that these are conducive to the setting of low rents. This duality of roles and its effect on the psychology of residents was powerfully expressed by one interviewee, a long standing co-op resident;

... because this is a ... non-profit, we're paying maintenance, taxes and insurance, that's it. It's as though we are already owners ... so we're just paying the basic cost of housing, but we're not capitalising (Arabelle, Milton Park Resident).

What becomes evident is that a combination of rules and norms, and the nature of property ownership, has created a structured set of relations between residents. In a realist conception, change occurs not only in virtue of the properties and powers that individual entities hold – in this case residents and members – but also as a result of their organization and the relations between them (Bechtel & Abrahamsen, 2005 p. 423). Individuals in the co-ops were acting in rule-bound environments, with distinct powers to individually and collectively affect affordability.

This is not to underestimate the effect of processes taking place outside of the collective, or the historic events which predicate low rents. The affordability of housing in CMP was made possible by historic packages of funding, mortgage guarantees and lending by government bodies, which enabled the co-ops to acquire and refurbish the properties. The historic acts of political supporters, advisors and community organizers were central to the development of the co-ops and CMP. These actors helped prevent the acquisition of housing in Milton Park by private developers, and then subsequently devised new legal models for ownership, securing the legislative changes required to make these possible. All this took place within wider economic changes which hindered private redevelopment (Archer, 2016; Helman, 1987; Kowaluk & Piché-Burton, 2012). Hence causal explanations for low rents which focus solely on internal processes may miss the crucial external processes and factors. Organizational ways-of-acting may therefore provide only a partial causal explanation.

The mechanics of collectivism and the affordability of housing

The role of housing in affecting certain outcomes for individuals and groups has long been a subject of interest. Recent reviews by Zavisca & Gerber (2016) show the wealth of literature on how housing-related mechanisms may, for instance, explain perceptions of wellbeing, accumulated wealth, work and educational status, the formation of households and the development of social capital. Powers and processes associated with homeownership have often been at the heart of these posited mechanisms (Lindblad & Quercia, 2015). In the narrower field of housing collectivism, scholars have applied (social) mechanism theory to understand unique patterns in beliefs, behaviours and outcomes. For instance, Bengtsson (2000) sought to explain

the collective action apparent in Swedish housing co-operatives, arguing that a process of institutionalization was taking place, through ‘norms of utilitarianism’ (Bengtsson, 2000). More recently, Bengtsson has developed his ideas to posit mechanisms of solidarity to explain the role of specific beliefs and behaviours – for instance, self-interest, altruism and reciprocity – in creating repeated observations in collaborative housing (Sørvoll & Bengtsson, 2020).

This literature has informed efforts to articulate the mechanisms connecting housing collectivism and housing affordability. The empirical material gathered here suggests that there is explanatory potential in mechanisms which connect legal rules and internal rule-making with organizational processes and the *positions* occupied by residents and members in each collective.

In the three cases studied here, each collective’s operating environment was seen to powerfully affect their capacity to charge low rents/prices. This was apparent in the freedoms, powers and resources made available to them from different tiers of government; in the legal rules concerning property ownership and the scope to use these to protect housing from speculative processes; in the dynamics of the wider housing market and how this affected the availability of land and property at key junctures; and in the norms and composition of relationships in wider society affecting individuals’ preferences for, and capacity to, own and manage housing collectively.

Within each unique context the collectives adopted specific legal forms and rules which shaped the beliefs, practices and decisions of those within them. In this architecture of rules, those living within the collectives or the local area had to make decisions about rents/prices. This was often from a position as both resident *and* collective owner of the property.

Focusing in on these processes helps to conceptualize two causal mechanisms which connect collective forms and functions with the outcome of low rents/prices. These, as suggested by Bechtel & Abrahamsen (2005), try to outline and generalize the function of entities organised within specific relational structures, and to provide a ‘stripped down picture’ of processes in action (Hernes, 1998, p. 28).

i. The Form, Rules and Regulation (FRR) Mechanism

The legal form adopted by each collective set the parameters for how that organization was governed, the beneficiaries to be targeted, and the nature of property ownership and use. Within this legal framework, localized or internal rules were set, such as those defined in the Declaration of Co-ownership in Milton Park, the constitutional rules governing Granby CLT and WECH, or the myriad of other rules contained within, for example, allocations policies, tenancy agreements and codes of conduct. These rules further clarified the powers and roles of different residents and members, the decision-making processes, and who the collective should seek to benefit. Such rules were then interpreted, enforced or relaxed through internal practices and collective regulatory effort, as members (and groups of members) imposed on each other expected standards and norms. This regulatory activity, whilst shaped by form and rules, was also steered and legitimised by historic commitments and ideals

borne out of struggles for control and ownership. This appeared to foreground the needs of current residents and the goal of preserving certain characteristics of the existing community.

This blending of form, rules and regulatory activity can result in governance forms and practical action capable of removing or suppressing inflationary pressures on rents/prices.

i. The Dual-role Mechanism

For those within the collectives, rules and practices were often received from a unique *position*; the resident-owner. Where co-owners of the collective's housing also inhabited that housing, downward pressure on rents was apparent. Those involved in decisions about rents knew that increases would be reflected in what they personally had to pay. However, as co-owners those individuals were also attuned to the financial needs of the organization as a whole. The dual-role of the resident-owner therefore incentivises the setting of rents/prices to the lowest tolerable levels, seeking not to jeopardize the sustainability of the organization, but to deliver the lowest possible rental charges. What emerges from this is a greater significance being placed on the use-value of housing to existing residents, ahead of the exchange or investment value in securing other outcomes or objectives (Harvey, 1978). Where collective members are not resident in the collective's housing, other incentives may drive low rent/price setting, such as preserving the function of that housing as accommodation for those on low incomes or excluded from other locations.

The downward pressure on rents/prices through these two connected mechanisms is visualized in [Figure 2](#) below. Sequentially, the features of a collective's operating environment, their organizational forms and functions, and the preferences of their resident-owners narrows the scope for higher rents/prices.

The extent to which this reflects causal processes in setting rents/prices might be considered further through some counter-factual reasoning, exploring other scenarios in which rents/prices might be lowered. One might imagine a situation where government wishes to subsidize housing to such an extent that a landlord or seller can provide their housing at highly affordable levels. Hence, funding arises from the operating environment and is so extensive it renders other processes (collective or otherwise) unnecessary. One might also imagine a scenario where, in the absence of significant external subsidies, economies of scale and other revenue generating activity enable landlords to offer housing for rent at highly affordable prices (again rendering other processes unnecessary). As the trend in mergers of UK housing associations has developed (van Bortel *et al.*, 2010), and as they undertake increasing commercial activity, this scenario is at least a theoretical possibility. One might suggest this has not delivered lower rents because of the incentives for these organizations to maximize their revenues (Smyth, 2019; Smyth *et al.*, 2019). Such counter-factual scenarios suggest that housing providers not operating collective ownership models *could* use their resources in different ways to lower rents – without requiring the mechanisms discussed above. However, evidence suggests they are not, and given that such housing providers operate in the same policy and funding environments as housing

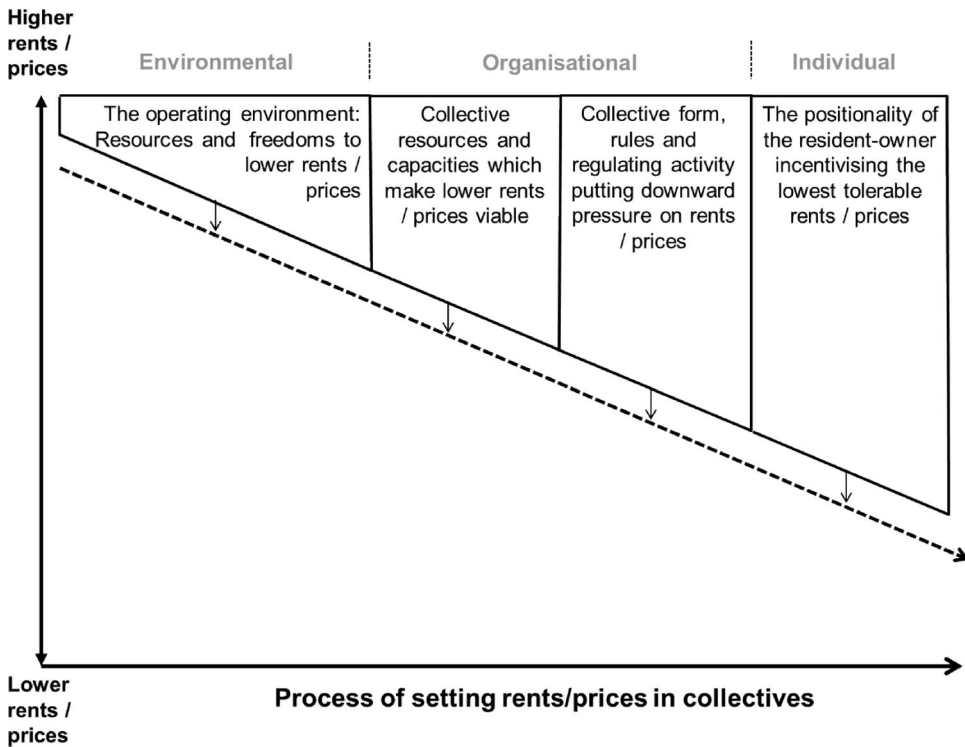


Figure 2. The downward pressure on rent/prices in the collectives.

collectives, and are therefore in similar conditions sufficient for low rents, this justifies the focus here on internal collective processes as causally significant in shaping affordability.

Conclusion

This article has sought to explore (1) the extent to which specific housing collectives provide housing that is affordable, and (2) how the form and function of these organizations affect the levels of affordability seen. This is a clear gap in knowledge identified by scholars and other commentators (Archer, 2016; Clapham & Kintrea, 1992; Martin *et al.*, 2016; Rowlands, 2009). The approach here has not been to systematically compare collectives operating in different contexts, or their respective housing systems. Rather it has focussed on the distinct outcomes and ways-of-acting of individual collectives in their unique contexts. The Canadian case (CMP) performs an important function in the study, bringing into focus the role that local and national governments can play in resourcing such housing models, and how legal and legislative systems can facilitate new organizational forms and non-speculative approaches to housing provision. At the time of study, English housing collectives were not receiving the level of financial support that housing cooperatives in Canada have obtained in recent decades, and the growth of the sector in England has reflected this. Despite these contextual differences, the processes operating within each collective bear striking similarities to one another. This suggests that more fundamental

mechanisms may operate in such housing models, and these may transcend differences in political, economic and social contexts. This finding asserts the relevance of these mechanisms to a wide international readership interested in collective and self-organised forms of housing provision.

The major contribution of this research is at the organizational level, tracing processes which arise from structured relations between residents and members in collectives, and which in turn affect decisions about rents/prices. The research arguably highlights *necessary* elements within wider conditions that are *sufficient* to produce affordable rents/prices (Mackie, 1965). In this sense, the findings are not a recipe for enhanced affordability everywhere, merely a depiction of how – in three cases – essential components combined with a unique set of local and national conditions to make affordable housing the outcome. The article therefore provides insights into the cogs and wheels of housing collectivism. It uses simplified mechanisms to show the causal role of organizational forms, and internal rules and regulatory activity in affecting rents/prices. Alongside this, the unique position of the resident-owner in housing collectives is critical. In a structured set of relations with other residents, the resident-owner is incentivised to set rents/prices to the lowest tolerable level.

In identifying these causal processes this paper corroborates arguments made by other scholars, such as Clapham & Kintrea (1992 p. 173), that resident control is 'at the heart of the material and social benefits to be derived'. The analysis provided here goes further, extending and enriching the causal picture by depicting the processes through which downward pressure on rents/prices is exerted. In a field where claims about outcomes are plentiful, but causal explanations are rare, this work adds rigour and provides the conceptual tools to get beyond the rhetoric of collectivism and its virtues.

The paper merely scratches the surface on how localized forms of housing ownership and governance can affect housing affordability. Nonetheless it does provide an approach to modelling the mechanics of change which could have wider application in housing studies. Further research in this field should examine whether the findings provided here hold for a broader range of cases, and a broader range of contexts, potentially using inferential statistics to look at causal factors in a larger set of collectives (Pearl *et al.*, 2016), or perhaps mapping and depicting conjunctions of causal factors in visual networks (Elwert, 2013). Future research should continue to focus on disentangling the causal role of collective forms and functions from the myriad of other factors which can affect the affordability of housing in different contexts. The renewed interest in these alternative forms of housing – as a potential remedy to some of the stark inequities in housing markets – makes this an appropriate time to conduct more rigorous assessments of their outcomes and how these are achieved.

Notes

1. A small part of the CLT's area of operation is in an adjacent MSOA. Average incomes here were £420 per week.
2. Census tracts 4620131.00 and 4620132.00.

Disclosure statement

No potential conflict of interest was reported by the authors.

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