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HOUSING EVIDENCE

Housing systems, their institutions and their resilience

Preliminary literature review

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Executive Summary

Introduction

This literature review forms part of a project for the UK Collaborative Centre for Housing Evidence (CaCHE), entitled *Housing Systems, their Institutions and their Resilience*. The project explores the evolution of the UK housing system between the start of the Global Financial Crisis (GFC) in 2007/08 and the Covid-19 crisis in 2020, specifically exploring in what respects its resilience was strengthened or undermined during this period. Given the frequency of crises, there are crucial questions to consider regarding housing systems and their resilience, including how far UK housing market institutions have learnt and adapted since the GFC; how far different housing market institutions have become more or less resilient as a result of the GFC; and what is required to create a 'resilient' housing system, for example regarding what types of reform are needed. The project focuses on two market-based institutions: the mortgage industry (UK) and the housebuilding industry (England and Scotland).

This literature review examines scholarship and grey literature on resilience as it relates to housing systems and their institutions, crises (the GFC and Covid-19 pandemic) and organisations. It was conducted from July - October 2020 and therefore does not include literature published since then. It is conceptual in focus, with the aims being (1) to develop the concept of resilience from the broader literature; and (2) to outline literature relating to housing and resilience. It is based on a detailed search of key terms in the Applied Social Sciences Index (ASSIA) and Google Scholar databases, with titles being reviewed for relevance. The abstracts for these papers were then reviewed, with the full paper read and analysed where relevant.

Introducing Resilience

Section 2 of the review identifies how scholars have traced the evolution of the concept of 'resilience' over time, with Porter et al. (2018:338) noting that the term originates for the Latin to "spring back." Within academia, scholars have noted that the term originally emerged from the natural sciences and engineering. In this understanding, resilience has typically referred to a return to the 'original' state of a material or a system after a shock, with a fairly static understanding (Holling, 1973; McGlade et al., 2006; Brunsdon & Dalziel, 2005; Cretney, 2014).

More recently, resilience has become an increasingly popular concept in both public policy and amongst social science academics (see, for example, Chandler, 2013; Cretney, 2014; Porter et al., 2018). The term has been applied at different scales (individual, community, organisational, societal) and in different disciplines, such as "sociology[y]. . . politics, ecology, geography, biology, economics and international relations" (Chandler, 2013:1). Nevertheless, Maurer (2016:2) highlights that resilience is a fairly new concept within sociology and the social sciences more broadly, and that "it is not a coherent concept or research program." Within housing studies specifically, Porter et al. (2018) argue that the static engineering understanding of resilience cannot easily be applied, with the housing system being constantly in flux and affected by complex factors.

Challenges Defining Resilience

Section 3 of the literature review identifies challenges defining resilience. Despite extensive attempts to define resilience, academics have highlighted the conceptual ambiguity that arises with multiple definitions of resilience across different disciplines (for example, Gibson & Tarrant, 2010; Bhamra et al., 2011; Windle, 2011). They have highlighted how such ambiguities also complicate the use of the term within policy (for example, Cutter et al., 2010). Scholars have therefore highlighted the need for clearer definitions of resilience and better understanding of its components, both when applied within policy and when analysed in academia (see, for example, Fiksel, 2003; Seville, 2008; Adger, 2010; Gibson & Tarrant, 2010; Windle, 2011; Nicol & Knoepfel, 2014).

The definition adopted for this project, from an organisational studies perspective, given its applicability for understanding housing systems and their institutions, is that provided by Gibson and Tarrant (2010). Here, they understand resilience as "...not just [being] about 'bouncing back from adversity' but... more broadly concerned with adaptive capacity and how we better understand and address uncertainty in our internal and external environments" (Gibson & Tarrant, 2010:8). The focus on adaptation is important here, given the complexity of the housing system and its institutions (see Porter et al., 2018; Gibb & Marsh, 2019), and the extreme and unprecedented shocks it has faced in recent years, first with the GFC and then the Covid-19 pandemic (MacLennan & O'Sullivan, 2011; Keenan, 2020; Buckley et al., 2020). This understanding also allows consideration of the types of interventions that may be required from government to maintain adaptability and, importantly, to reform and improve the housing system going forward.

Applications of Resilience within (UK) Public Policy

Section four discusses applications of resilience within UK public policy, noting the subsequent rise in academic publications on the subject (for example, Shaw, 2012a; Chandler, 2013; Joseph, 2013; Slater, 2014; Porter et al., 2018). Resilience has thus been applied in different public policy areas, including housing (Porter et al., 2018), regeneration (Slater, 2014) and health (GCPH, 2014).

However, several scholars have cautioned about the risks of applying a term traditionally applied to engineering and ecological studies to public policy (for example, Moser, 2008; Birkland, 2016). There have been criticisms of 'resilience' becoming a buzzword or a panacea for policy problems, similar to 'sustainability' (McGlade et al., 2006; Birkland, 2016; Porter et al., 2018). Porter et al. (2018:281) have cautioned that the term can become "highly politicised and often mean very different things to different people," lacking conceptual clarity.

Debates about Resilience

Section 5 explores debates regarding resilience in greater detail. Academics have noted how traditional understandings of engineering resilience have focussed on the "equilibrium model", with the focus being on how to return to the "status quo" following a shock or crisis (Jacobs & Malpass, 2018; Lee, 2019). However, several social scientists, including those from housing studies, have sought to critique this model for lacking a focus on adapting to, and learning from, shocks and crises; and for privileging the "status quo," without considering how "underlying power structures" can be challenged or changed (Lee, 2019:1189). These questions of power and inequality are crucial to considerations of the resilience of the housing system (for example, Hawtin & Kettle, 2000; Mullins & Murie, 2006). Key questions for this study therefore include in whose interest(s) the objective of resilience is being promoted, and whose interests the government is supporting when it intervenes to support or regulate the housing market (see, for example, Porter et al., 2018).

There has also been much debate regarding these different understandings of resilience in public policy, framed as “radical” and “conservative” by Raco and Street (2012). Here, “radical” understandings of resilience are generally understood as being more concerned with progressive agendas and “adaptability,” while “conservative” understandings tend to focus on maintaining the status quo, as discussed above (Raco & Street, 2012; Shaw, 2012a; Porter et al., 2018; Jacobs & Malpas, 2018). Some scholars have therefore sought to explore the potential for resilience to be used and understood in more progressive ways at different scales, including how it can be reclaimed by individuals and communities (for example, Shaw, 2012a; Cretney, 2014; Rogers, 2015). These debates have particular salience to housing systems, with questions of what a ‘resilient’ housing system would look like and whose interests this might serve (Porter et al., 2018).

Housing, the Global Financial Crisis and Covid-19

Section 6 applies these debates and understandings to the focus of this project, exploring how resilience has been applied within housing studies, and specifically the role of resilience in crises, specifically the GFC of 2008 and the Covid-19 pandemic. Wang (2016:59) identifies that there has been less research focussed specifically “on [the] resilience of the housing market from economic shocks,” and particularly in terms of groups of organisations comprising the two institutions of focus here. Within housing studies, there has been growing attention to resilience (Scanlon & Whitehead, 2011; Gibb et al., 2016; Jacobs & Malpas, 2018; Lee, 2019). For example, Porter et al. (2018) recently set out a critical agenda for housing and resilience, in their article “Housing and resilience – when, for whom and for what?” They argue that within housing studies, resilience “is both ubiquitous and under-theorised” (ibid.:387). The current research project thus aims to contribute to this gap, specifically applying resilience to two key housing market institutions in the context of the GFC and Covid-19. It is crucial to explore what resilience means for the housing market institutions of focus, and the organisations and individuals that comprise them; what the nature of government intervention is; and whose purposes it serves (see Porter et al., 2018).

Researchers have also highlighted the need for both governments and the private sector to learn from previous crises, such as the GFC of 2007/08, in order to be more resilient when responding to future crises (Keenan, 2020; Buckley et al., 2020). For example, Haubrich (2020) highlights the learning that can be applied from the GFC to the current context of Covid-19 in relation to the financial sector more broadly. These issues and questions arguably also relate to the housing system and its institutions more specifically, given its increasing complexity (Porter et al., 2018; Gibb & Marsh, 2019). There is a need to better understand how the resilience of housing institutions could be strengthened, with what reforms, and what the intended and unintended consequences of such reforms could be (Haubrich, 2020).

In popular discourse and grey literature, there has been much discussion of individual and community resilience in relation to the Covid-19 pandemic, with recognition that its impacts, and people’s and communities’ abilities to respond to them, are not evenly distributed (for example, Bellizzi, 2020; Harkins, 2020; Hinsliff, 2020; Masten, 2020). However there remains much uncertainty regarding the impacts of Covid-19 on housing market institutions, with a need to better understand how far they have adapted (and become more resilient) since the GFC. This is the focus of this project.

Applications to Organisations

Section 7 explores the application of resilience to organisational studies. Scholars have noted that while there have been increasing efforts to apply the concept of resilience, and test its utility, within organisational studies (Bhamra et al., 2011), there is a need for further empirical research applying resilience to organisations (the focus here being housing institutions), with much existing research being theoretical in focus (Bhamra et al., 2011; Burnard & Bhamra, 2011; Porter et al., 2018). Scholars have also identified a need for further research regarding the relationship between organisational and individual resilience, for example via a case study approach (Bhamra et al., 2011; Gibb et al., 2016). The current study seeks to contribute to these gaps by focussing on empirical case studies of market-based housing institutions in the UK, in the context of these crises.

Conclusions

This literature review aimed to develop the concept of resilience from both the broader and housing studies literatures, to inform the current research agenda. The review highlighted how resilience has been used across a wide range of disciplines and at a variety of scales, including to explore crises such as the GFC. There has also been increasing application of resilience within housing studies and organisational studies. Yet, scholars have highlighted a need for further empirical studies of resilience within housing studies and of organisations. Further, there is seemingly a need for further research exploring the resilience of groups of organisations i.e., institutions (the focus here). This study will therefore seek to contribute to these gaps by assessing the evolution of the housing system between the start of the GFC in 2007/08 and the Covid-19 crisis in 2020, in particular considering in what respects its resilience was strengthened or undermined during this period. This will be done by focussing on two market-based institutions: the mortgage industry (UK) and the housebuilding industry (England and Scotland).

1. Introduction

The UK housing market has experienced significant trauma in the past decade since the Global Financial Crisis (GFC hereafter) of 2007/08, and now the ongoing Covid-19 pandemic, beginning in early 2020 (Maclennan & O'Sullivan, 2011; OECD, 2020). The first threatened the existence of many housing market institutions and required unprecedented government intervention (Whitehead & Williams, 2011; Stephens, 2011). Just over a decade later, another shock occurred due to Covid-19. Given the frequency of these shocks, there are crucial questions to consider regarding housing systems and their resilience, including how far UK housing market institutions have learnt and adapted since the GFC; how far different housing market institutions have become more or less resilient as a result of the GFC; and what is required to create a 'resilient' housing system, for example regarding what types of reform are needed.

This literature review thus forms part of a study for the UK Collaborative Centre for Housing Evidence (CaCHE) exploring the evolution of the UK housing system between the start of the GFC in 2007/08 and the Covid-19 crisis in 2020, specifically exploring in what respects its resilience was strengthened or undermined during this period. The project focuses on two market-based institutions: the mortgage industry (UK) and the housebuilding industry (England and Scotland). This literature review examines scholarship and grey literature on resilience as it relates to housing systems and their institutions, crises (particularly the GFC and Covid-19 pandemic) and organisations. It was conducted from July to October 2020 and therefore does not include literature published since then. It is conceptual in focus, with the aims being (1) to develop the concept of resilience from the broader literature; and (2) to outline literature relating to housing and resilience. It is based on a detailed search of key terms in the Applied Social Sciences Index (ASSIA) and Google Scholar databases.

Porter et al. (2018:388) note that the term resilience originates for the Latin to "spring back." Resilience is understood here as "not just about 'bouncing back from adversity' but... more broadly concerned with adaptive capacity and how we better understand and address uncertainty in our internal and external environments" (Gibson and Tarrant, 2010:8). Resilience has become an increasingly popular concept in both policy and academia, with a Resilience journal running from 2013 to 2019 (Chandler, 2013). The term has been applied at different scales (individual, community, organisational, societal) and in different disciplines, such as through "sociological perspectives... politics, ecology, geography, biology, economics and international relations" (Chandler, 2013:1). Nevertheless, Maurer (2016:2) highlights that resilience is a fairly new concept or agenda in sociology and the social sciences more broadly, and that "it is not a coherent concept or research program."

Within the field of housing, resilience has been applied to both producers and consumers (Gibb et al., 2016), but there is a need for further research regarding resilience in relation to housing market institutions, comprised of multiple organisations. This is particularly necessary when examining the GFC, and considering learning that has been applied in the context of Covid-19. This literature review argues for the need for further research applying resilience to groups of organisations within the same field, or sectors, an under-researched area. This may allow greater scope for government intervention in terms of regulating the framework these sectors operate in.

This literature review initially summarises the origins of resilience thinking, before discussing literature regarding the challenges of defining resilience. Subsequently, it outlines the application of resilience within public policy, which has subsequently led to an increase in academic literature on the subject within the social sciences. Next, it analyses debates about the concept, including those relating to the equilibrium model and "radical" and "conservative" understandings of resilience (Raco & Street, 2012). Subsequently, it considers literature regarding housing, the GFC, Covid-19 and resilience, before exploring literature regarding resilience as it applies to organisations.

2. The Origins of Resilience Thinking: Engineering and Ecological Perspectives

There has been much debate regarding the meaning of resilience across a number of academic disciplines and policy areas, such as “sociology[y]... politics, ecology, geography, biology, economics and international relations” (Chandler, 2013:1; see also Seville, 2008). Scholars have outlined and debated the development of resilience as a concept originating in the natural sciences and increasingly being applied to the social sciences (McGlade et al., 2006). For example, Brunson and Dalziel (2005:28), writing from an engineering perspective, provide a scientific/ engineering understanding of resilience, with the understanding that it is:

“the ability of a material or system to absorb change gracefully whilst retaining core properties or functions... the ability to rebound to original shape/form after deformation that does not exceed its elastic limit; [and] the ability of a system to recover easily and quickly from adversity.”

Thus, this understanding focusses on returning to the ‘original’ state of a material or a system, with a fairly static understanding which cannot easily be applied to housing markets and their institutions, which are constantly in flux and affected by complex factors (Porter et al., 2018).

Holling’s (1973) seminal paper, written from an ecological perspective, is often cited for developing the idea of “ecological resilience” (for example, Cretney, 2014; Porter et al., 2018). Holling (1973, cited Cretney, 2014:628) posed that in contrast to scientific, or engineering, understandings of resilience, “ecosystems do not have one static point of equilibrium, but rather a zone of stability that allows for the reorganisation of a system to continually exist and function even in the face of disturbance and change.” In contrast to engineering resilience then, Cretney (2014:628) notes that Holling’s understanding of ecological resilience “measures the scope of disturbance that a system can absorb before the system changes its structure.” Cretney (2014:628) thus notes that Holling’s (1973) analysis of resilience was a “theoretical breakthrough,” citing Gunderson (2000), with the argument that it “challenged the dominant view of a single global environmental equilibrium and laid the foundation for greater awareness of the interconnections between social and environmental systems within the resilience theory.”

Thus, McGlade et al. (2006:149) summarise the different understandings of resilience in the ecological and engineering literatures:

“in the ecological literature... [resilience] has two distinct meanings. The first emphasises stability, control and constancy (*engineering resilience*) – attributes of a desire for optimal performance – while the second by contrast focuses on persistence, adaptedness and unpredictability (*ecological resilience*) – attributes of an evolutionary perspective” (italics in original).

It is the latter understanding (ecological, or socio-ecological) which is most applicable to the social sciences, and housing systems in particular, given their complexity and constant shifts, being affected by multiple, inter-related factors, which are in constant flux (Porter et al., 2018; Gibb & Marsh, 2019). The following section now analyses different definitions and understandings of resilience, highlighting the complexity of defining the term.

3. The Challenges of Defining Resilience

Despite attempts to define resilience, academics have highlighted the conceptual ambiguity that arises with multiple definitions of resilience across different disciplines. For example, scholars such as Windle (2011), from a health perspective, and Gibson and Tarrant (2010), from an organisational studies viewpoint, have highlighted how for some, resilience is viewed as a process, while for others it is seen as an outcome (Cutter et al. 2010). As Bhamra et al. (2011:5389) highlight, from an engineering and organisational studies viewpoint, there is a need “to understand whether resilience is: a measure, a feature, a philosophy or a capability?” Table 1 below outlines key definitions of resilience for different disciplines.

Term	Description	Citations
“Engineering resilience	The efficient stability of a system state	Gunderson, 2000; Holling, 1996
Ecological resilience	The ability of a system to absorb disturbance, before resorting to a shift in system state, through changing variables and processes that control behaviour	Holling, 1973
Social resilience	The capacity for communities to cope with external disturbances resulting from social, political and environmental change	Adger, 2000
Socio-ecological	The interplay of factors involved in recovering from disturbances, re-organisation and the development of socio-ecological systems	Adger, 2005; Berkes, 2007; Folke, 2006; Gunderson, 2010; Norris et al., 2007
Community resilience	A process of adaptation in a community following a disruption, distinguished by factors such as social capital and community competencies	Chaskin, 2008; Cutter et al., 2008; Norris et al., 2007; Morrow, 2008; Harrow, 2009; Harkins, 2020
Urban resilience	The network of structures, processes, infrastructure and community identity that both manages extreme stress and evolves into a more desirable state following a disturbance	Godschalk, 2003; Gunderson, 2010; Norris et al., 2007”

Table 1: Definitions of resilience

Source: Taken directly and then slightly adapted from Cretney (2014:629)

Scholars have highlighted how such ambiguities complicate the use of the term in policy, with confusion over what the aims of operationalising the term in policy are (for example, Cutter et al., 2010). Cutter et al. (2010:1), from a geographical perspective, discussing community resilience to disasters, highlight a number of challenges noted by academics:

“Lingering concerns from the research community focus on disagreements as to the definition of resilience, whether resilience is an outcome or a process, what type of resilience is being addressed (economic systems, infrastructure systems, ecological systems, or community systems), and which policy realm (counterterrorism; climate change; emergency management; long-term disaster recovery; environmental restoration) it should target.”

While this was published a decade ago, the current review of recent literature suggests that these concerns arguably still remain.

To try and address these ambiguities, scholars have highlighted the need for clearer definitions of resilience and better understanding of its components (see, for example, Seville, 2008; Gibson & Tarrant, 2010; Windle, 2011). Windle (2011:152) cites that this is particularly important when scholars are seeking “to inform research, policy and practice.” There have thus been efforts to try and identify components of resilience. Adger (2010:no page), writing from a geographical perspective, understands resilience as being “about being able to be flexible and also about the ability to adapt.” He states that it has three aspects, namely: “the ability to absorb perturbations and still retain a similar function; ...the ability of self-organisation; and also the capacity to learn, to change and to adapt... the key element is about the ability to change rather than the ability to continue doing the same thing” (ibid.; see also Shaw, 2012a).

Moreover, Wilson (2013:3) analysing community resilience from a geographical perspective states that community/ social resilience “can be both preventative (avoiding poor outcomes by developing coping strategies), or it may facilitate recovery after a traumatic event of catastrophe.” The Glasgow Centre for Population Health (GCPH) has defined community resilience as “the ability of individuals, places and populations to withstand stress and challenge” (Seaman et al., 2014:3). In terms of prevention, Nicol and Knoepfel (2014:231), from a housing studies perspective, use this understanding to argue that a resilient system must include “the necessary elements to mitigate the consequences of external disruptions,” recognising that “a resilient system is one that is less vulnerable and has in place better mechanisms to cope with a disturbance,” thus reducing the impact of shocks (ibid.). In terms of recovery, they state that this refers “to how the system reacts once a disruption occurs,” with “a resilient system more readily return[ing] to a desired state” (Nicol and Knoepfel, 2014:231).

Fiksel (2003:5333) “identifies four major system characteristics that contribute to resilience”:

- a) “Diversity – the existence of multiple forms and behaviours
- b) Efficiency – performance with modest resource consumption
- c) Adaptability – flexibility to change in response to new pressures
- d) Cohesion – existence of unifying forces or linkages” (ibid.).

He thus argues that “an understanding of system resilience” is useful if “significant disruptions or discontinuities occur that shift the system away from its current equilibrium state” (Fiksel (2003:5333). He notes that disruptions could involve “the emergence of new regulatory or market forces or changes in the availability of resources” (ibid.). In terms of housing institutions, shocks tend to be economic, although the policy response to these may be changes to the regulatory environment. Further, Zolli and Healey (2012:8) define resilience as: “the capacity of a system, enterprise or a person to maintain its core purpose and integrity in the face of dramatically changed circumstances.”

However, the definition adopted for this research project, from an organisational studies perspective, given its applicability for understanding housing systems and their institutions, is that provided by Gibson and Tarrant (2010:8), with resilience being understood as:

“...not just about ‘bouncing back from adversity’ but... more broadly concerned with adaptive capacity and how we better understand and address uncertainty in our internal and external environments.”

The focus on adaptation is important here. From a housing studies perspective, Porter et al. (2018:388) argue that adaptation is a crucial component of resilience, with the view that “systems [are] always complex and always in various states of change and transformation,” regardless of whether there are “external shocks,” in contrast to the traditional engineering understanding of resilience. They suggest that this is “a paradigm shift in thinking” from a traditional focus on “the bounce-backability of a system” within a world that was understood as being “structured by order and therefore mostly predictable” (Porter et al., 2018:388). Thus, Porter et al. (2018:389) suggest that a focus on adaptability within “resilience thinking offers a way of thinking about how much disturbance a system can withstand and stay within critical thresholds... how much pressure can be borne, before it breaks?” This is very relevant here, given

the extreme and unprecedented shocks the housing system has faced in recent years, first with the GFC and then Covid-19 pandemic. This understanding thus provides a useful lens to consider the adaptability of the system and its institutions, as well as the types of interventions that may be required from government to maintain adaptability and, importantly, to reform and improve different components of the housing system going forward.

This section has therefore outlined different understandings and definitions of resilience within different disciplines, highlighting ambiguities and debates. It has considered these in relation to the housing system and outlined the definition adopted for this study. Further, there has also been much commentary regarding the application of resilience within policy and academic literature; this is the focus of the next section which discusses the application of resilience within (UK) public policy, and the subsequent increase of academic literature regarding the concept.

4. Applications of Resilience within (UK) Public Policy

Scholars have noted how resilience has been applied at a range of different scales, including the individual, organisation, community and society. For example, Gibb et al. (2016:443), writing from a housing studies perspective, describe how resilience “can be used to describe the characteristics of an organisation or even the housing sector as a whole.” They use the work of Zolli and Healy (2012) to highlight how “resilience can be used to refer to economic, ecological, social or technical systems and to both people and organisations” (Gibb et al., 2016:442). The application for this study will be to the two market-based institutions of interest: the housebuilding industry and the mortgage industry, specifically examining the resilience of these groups of organisations, or ‘sectors,’ in the context of crises: the GFC and the Covid-19 pandemic.

Several commentators have traced the ways in which resilience has been increasingly applied within policy discourse, including in the UK (for example, Shaw, 2012a; Chandler, 2013; Joseph, 2013; Slater, 2014; Porter et al., 2018). Writing from a politics/ public policy perspective, Shaw (2012a:282) notes, citing Harrow (2009:1), that while UK policy discourse has traditionally applied resilience to “civil contingencies and emergency planning,” it has been increasingly applied more broadly to “public policy, public management and third sector discourse.” Yet, Shaw (2012a:297) highlights “the danger of uncritically introducing a term – first used in an ecological context and then mainly developed in the disaster management literature – into debates on public policy.” Further, Birkland (2016:117) highlights that there may be a risk that resilience may “become uncoupled from [its] intellectual and technical origins” and may become a “catch all term” used “by politicians, civil servants, and technical experts, with little or no shared understanding.” In this context, therefore, Porter et al. (2018:387) caution that the term can become “highly politicised and often mean very different things to different people” (ibid.). While academic literature on resilience has often originated from psychology, in terms of individual resilience, and from the natural sciences or engineering (see, for example, Bhamra et al., 2011; Cretney, 2014 for discussion of the origins of the term), the increasing application of resilience to public policy has led to a growth in academic literature on resilience in the social sciences as applied to public policy, including housing (for example, Chandler, 2013; Jacobs & Manzi, 2018; Porter et al., 2018).

Parallels are often drawn between the use of resilience as a policy buzzword, or even panacea, and sustainability, another term popularised within policy (McGlade et al., 2006). Both terms have been used across a range of different disciplines to mean different things (McGlade et al., 2006:149; Windle, 2011; Birkland, 2016; Fainstein, 2018). However, Porter et al. (2018:387) cite that “unlike that other prolific keyword ‘sustainability,’ [resilience] lacks both the ethical intent (if not practice) and international agreement of the Brundtland Report directive to seek to balance economic, social and environmental outcomes for the benefit of future generations.” Adger (2010:no page) thus notes that

while resilience can be understood as a “a societal or normative goal” like sustainability, it can also be understood “in a positivistic sense,” as “a characteristic of a system,” highlighting the need to distinguish “between resilience as a system property, and resilience as a goal for society.” It is the latter understanding that is most useful here, with the aim of this project being to understand in what ways the housing system has become more or less resilient since the GFC, and what types of interventions may be required to strengthen this going forward.

Thus, with its increasing adoption and emphasis within public policy, resilience has been critiqued for lacking conceptual clarity (McGlade et al., 2006:146). For example, Cretney (2014:631), taking a geographical focus, explores “emerging critical geographies of socio-ecological resilience,” noting that resilience is being used by an increasing “variety of disciplines” and within policy and “popular use.” She notes “three trends regarding resilience” in recent literature:

“The first involves the distinct lack of complex and applied understandings of social and cultural dynamics within resilience frameworks. The second involves the use of resilience as a tool for perpetuating hegemonic values and discourses, while the third involves a more countercultural form of activism that mobilises a specific articulation of resilience and transformation” (ibid.).

These points are important to remember here, given the complexity of housing market systems (Porter et al., 2018; Gibb & Marsh, 2019) and the earlier discussion of system adaptability at section 4. The focus of this study is on the adaptability of housing market systems; and the potential (albeit contested) for the GFC and Covid-19 crises to lead to progressive or transformational reforms within the housing system and institutions of interest, as discussed in section six.

Within public policy, Shaw (2012a) explores the increasing emphasis on resilience amongst local governments in the UK as a result of austerity policies after the GFC. Shaw (2012a:281-282) explains how the language of resilience was emphasised by the Conservative-Liberal Democrat Coalition government (2010-2015), aligned with their Big Society agenda, with an emphasis on “local innovation and risk taking.” Thus, Shaw (2012a:281) argues that:

“[t]he term resilience is increasingly being utilised within the study of public policy to depict how individuals, communities and organisations can adapt, cope, and ‘bounce back’ when faced with external shocks such as climate change, economic recession and cuts in public expenditure.”

However, as Wang (2016:59) identifies, there has been less research focussed specifically “on [the] resilience of the housing market from economic shocks,” and particularly in terms of groups of organisations comprising the two institutions of focus here, what we term sectors.

This section has thus outlined some of the ways in which resilience has been applied within public policy, highlighting some of the critiques and challenges of doing so. The following section explores these debates in greater detail, examining critiques of the traditional engineering-focussed “equilibrium model” of resilience, and debates regarding “radical” and “conservative” understandings and applications of resilience (Raco & Street, 2012).

5. Debates About Resilience

The Equilibrium Model

Academics have noted how traditional understandings of engineering resilience have focussed on the “equilibrium model”, with the focus being on a return to the “status quo” following a shock or crisis (Jacobs & Malpass, 2018; Lee, 2019). As discussed, in contrast, it is the (socio-)ecological model of resilience that is most often applied within the social sciences. Accordingly, several social scientists, including those from a housing studies perspective, have sought to critique the “equilibrium model” for lacking a focus on adapting to, and learning from, shocks and crises (Lee, 2019:1189; see also Porter et al., 2018). It has been criticised for privileging the “status quo,” without aiming to consider issues of power and inequality, and the ways in which “underlying power structures” can be challenged or changed (Lee, 2019:1189; see also Jacobs & Malpass, 2018). This critique is demonstrated in Porter et al.’s (2018) article titled, “Housing and resilience – when, for whom and for what? A critical agenda.” As Lee (2019:1191) cites:

“...from a sociological point of view, maintaining the same relationship following a shock event is highly normative: the equilibrium model of resilience assumes no evolutionary, social or political gains in terms of gender, race or class.”

Similarly, Shaw (2012a:285) argues that:

“[i]n applying [resilience] to public policy, there is also a missing dimension in relation to questions of power (Hudson, 2010). Partly this relates to who defines (and sets the agenda) in relation to what resilience should involve, but also to the distributional impact of promoting resilience (Morrow, 2008:6).”

Dowell-Jones and Buckley (2017:13), writing from a legal perspective and examining the potential of resilience as “a new guiding principle for financial regulation,” describe how ecological resilience thinking has moved away from a focus on classical “equilibrium” models to that of “panarchy,” understood as “multiple equilibria through which a system can transition.” Folke et al. (2010:3) define panarchy as “[t]he interactive dynamics of a nested set of adaptive cycles.” Dowell-Jones and Buckley (2017:13) use the work of O’Neill (1999) to note that “complex nonlinear systems have multiple potential points of equilibrium, balanced across actors operating at multiple spatial and temporal scales, and may never in fact be at a point of optimal equilibrium.”

These questions of power and inequality are crucial to considerations of housing systems and their resilience, with much literature emphasising how the UK housing system perpetuates and exacerbates existing inequalities, for example given the focus on home ownership and generational transfers of wealth (for example, Hawtin & Kettle, 2000; Mullins & Murie, 2006). Specifically regarding the resilience of the institutions of interest for this study, key questions include in whose interest the objective of resilience is being promoted, and whose interests the government is supporting when it intervenes to support or regulate housing market institutions (see, for example, Porter et al., 2018). There has thus been much debate regarding these different understandings of resilience in public policy, often framed as “radical” and “conservative,” as is now discussed (see, for example, Raco & Street, 2012).

“Radical” and “Conservative” Understandings of Resilience (Raco & Street, 2012)

Within the social science literature, “radical” understandings of resilience are generally understood as being more concerned with progressive agendas and “adaptability,” while “conservative” understandings tend to focus on maintaining the status quo, as discussed above (Raco & Street, 2012; Shaw, 2012a; Porter et al., 2018; Jacobs & Malpas, 2018). This debate has been linked to ambiguities in understandings of resilience, as discussed previously. For example, Fainstein (2018:1273-1274) concludes that the way in which resilience is deployed is related to its potential contribution to progressive agendas in terms of greater (social) justice:

"If the definition of resilience includes the ability to recover from all malaises including industrial obsolescence and physical disability, the term loses meaning. If, however, it is tightly connected to the interaction of disadvantaged groups with the physical environment, it has the capacity to contribute to greater justice."

Again, these debates have particular salience to housing systems, with questions of what a 'resilient' housing system would look like and whose interests this might serve (Porter et al., 2018).

Thus, some social science scholars have sought to explore the potential for resilience to be used and understood in more progressive ways at different scales and considered the ways in which it can be reclaimed by individuals and communities (for example, Shaw, 2012a from a politics/ public policy perspective; Cretney, 2014 from a geographical viewpoint; and Rogers, 2015 from a business studies perspective). Cretney (2014:627) highlights that resilience has the potential to be used to "respond and adapt to disruptions outside of the status quo," for example in terms of its use by "activists and community groups... for use in grassroots causes [such as local and global environmental and/or social issues]" (Cretney, 2014:631). Yet, she highlights that "this conceptualisation of resilience is far from uncontested," having the effect of "further confusing and complicating what resilience is and who it serves." Thus, despite this potential, Cretney (2014:627) notes that "[e]merging research has shown a lack of consideration for power, agency and inequality in popular and academic use of these frameworks," as resilience has often been used "to justify projects informed by neoliberal ideologies that aim to decrease state involvement, increase community self-reliance and restructure social services" (ibid.; see also Jacobs & Malpass, 2018):

"...discussions of resilience mask the ways in which resilience discourses reinforce and create hegemonic political and ideological discourses (Cote and Nightingale 2012; Joseph 2013; MacKinnon and Derickson 2012). This has led to claims that resilience is a profoundly conservative concept, actively employed as a tool to privilege and reinforce dominant political ideologies (Jerneck and Olsson 2008; MacKinnon and Derickson 2012)" (Cretney, 2014:632).

Cretney (2014:633) cites examples of the use of resilience in "conservative" ways, such as by "militaries and security programmes" and policies advocating "self-help and individual improvement (see Coafee & Rogers, 2008; Neocleous, 2013; O'Malley, 2010; Walker & Cooper, 2011)." Further, in their analysis of post-recession resilience planning in London and Hong Kong, Raco and Street (2012) argue that "conservative views have come to dominate 'recovery' thinking, with elite groups unwilling to accept the limits to the neoliberal orthodoxies that helped to precipitate the economic crisis" (ibid.:1065). There is however a need for further research regarding how the concept has been operationalised in housing studies (Porter et al., 2018).

Similarly, Rogers (2015:56) argues the case for better understanding the "positive and negative faces" of resilience and for recognising and developing progressive forms of resilience as an "agenda for change," in contrast to those who aim "to debunk resilience as meaningless jargon." He argues that this is particularly important, given concerns amongst "researchers and practitioners" that resilience may "becom[e] a tool of political rhetoric with little meaningful impact or potential to change how disasters are to be dealt with, now and in the future" (ibid.).

In contrast, while Jacobs and Malpass (2018) note these more optimistic or "progressive" understandings of resilience, citing those by Chandler (2014) and Shaw (2012b), both from a politics perspective, and Rose (2014), from a sociological viewpoint, they remain sceptical, stating that "we would [generally] caution against strategies that rely on an optimistic view of the future, and so of our capacity to respond to its challenges, or that frame resilience as part of a common-sense response to future contingencies" (Jacobs & Malpass, 2018:397-398). Thus, building on the work of Raco and Street (2012), Jacobs and Malpass (2018) discuss the "language of resilience." They aimed "to explore not only some of the reasons why resilience has such appeal, but also to make some critical observations about policy responses at a time of increasing uncertainty" (ibid.:394). They highlight that the appropriation of resilience discourses can often be more common amongst those who "concede that the insidious effects of globalised forms of capitalism cannot effectively be resisted" (ibid.:394), and who therefore emphasise the challenges facing local and national governments in responding to global challenges such as climate change, inequality and financial crises (ibid.:398). In

this context, they (ibid.:399) question whether resilience has been adopted within policy as a response to the lack of agency that some governments believe they have to address these challenges, thus individualising these structural challenges, particularly for the poor, with the view that it is necessary to “adapt and becom[e] resilient to any shocks that might arise” (ibid.:394):

“The proliferation of resilience discourses might thus be seen as part of an essentially rhetorical response to this sense of disillusionment. . . policy-makers are drawn to the notion of resilience, among other concepts, as a way of giving a sense of manageability to that which would otherwise be a source of anxiety” (Jacobs & Malpass, 2018:399; see also McGlade et al., 2006).

They therefore suggest that this “sense of disillusionment” may also be felt beyond government, with “a reduction in [people’s] expectations concerning what political action can achieve” (ibid.:399). Jacobs and Malpass (2018:400-402) critique this approach, highlighting the highly detrimental impacts it can have on those in need:

“When governments seek to reduce responsibility for the individuals and communities over which they exercise agency, it is invariably the least advantaged that are most disadvantaged by such a move, and are least able to manage on their own. . . resilience effectively serves to justify the withdrawal of support from those who need it most. . . thereby operating to reinforce and also actually to promote inequality and deprivation” (Jacobs & Malpass, 2018:402).

Jacobs & Malpass (2018:406) thus conclude that “[t]he problem. . . is not whether resilience is understood conservatively or radically, but with the very idea that the substantive political issues at stake can be addressed at a primarily rhetorical or ideational level in the first place.” There is thus much debate regarding how useful resilience is as an approach or agenda for different public policy issues, or whether it obscures the issues underlying the structural inequalities and challenges that need to be addressed.

These challenges are somewhat reflected in the history of the Resilience journal, which was established with the aim of being “the leading forum for the development and exchange of ideas regarding resilience and its role in both policy practice and theoretical understandings” (Chandler, 2013:1). However, it ceased to publish in 2019; in its final edition, Chandler (2019:304) suggested that “resilience as a policy framework of adaptation appears to be drawing to a close as it lacks an adequate agential or transformative aspect: it is always too oriented to adapting to feedback and modulating around sustaining what exists,” being “too interested in conservation and sustainability rather than transformation” (Chandler, 2019:311). Chandler (2019:311) suggests that with increasing recognition of global challenges, such as climate change, “[r]esilience, as the politics of adaptation, has been heavily problematised.” Nevertheless, he does seek to leave room for “more agential or futural alternatives” or “opportunities for a different politics” (Chandler, 2019:311). While the challenges and crises facing the housing system are very different to issues such as climate change, these debates regarding “progressive/ radical” and “conservative” agendas are important when considering resilience and housing, particularly in terms of the agency of different actors within the housing system. These issues will be considered throughout this project, which will explore issues of resilience as they relate to housing institutions (sectors).

This section has therefore traced the origins of resilience thinking across different disciplines and discussed varying definitions of resilience. It has highlighted academic debates regarding the utility and problematisation of resilience within public policy, relating these concerns to critiques of the equilibrium model, developed within the field of science and engineering. It has linked these issues and concerns to the current research agenda regarding the resilience of the two market-based institutions of focus here: the housebuilding industry and the mortgage industry. The next section now applies these debates and understandings to the focus of this project: how resilience has been applied within housing studies, and specifically the role of resilience in crises, specifically the GFC of 2008 and the Covid-19 pandemic. As noted in the introduction, at the time of writing (July – October 2020), there is little peer-reviewed research on Covid, given the recent emergence of the crisis.

6. Housing, the Global Financial Crisis, Covid-19 and Resilience

Housing Studies and Resilience

Within housing studies, there has been growing attention to resilience, with the concept being applied to various facets of housing studies (Scanlon & Whitehead, 2011; Jacobs & Malpas, 2018; Porter et al., 2018; Lee, 2019). For example, Gibb et al. (2016:443) highlight differences between organisational and individual resilience within housing, with it potentially referring to “a customer, a leader or a frontline member of staff.” Further, Porter et al. (2018) recently set out a critical agenda for housing and resilience, in their article “Housing and resilience – when, for whom and for what?” They argue that within housing studies, resilience “is both ubiquitous and under-theorised” (ibid.:387). The current research project thus aims to contribute to this gap, specifically applying resilience to two key housing market institutions in the context of the GFC and Covid-19.

Scholars have considered resilience and housing in relation to both consumers and producers. In terms of consumers, this has included exploration of the importance of housing for individual resilience and helping “people to cope with change and disturbance” (Porter et al., 2018:389; see also Nicol & Knoepfel, 2014). Regarding producers, research has examined housing and resilience in terms of the private sector (for example, Scanlon & Whitehead, 2011, on the mortgage market; Payne, 2020, regarding the housebuilding industry) and housing associations (for example, Gibb & McNulty, 2014; Gibb et al., 2016). Nevertheless, Nicol and Knoepfel (2014:232) cite a specific need for further research regarding “resilience of the built environment, particularly of cities and the elements contained within [including housing],” although this is not the focus here. Moreover, Kemp (2015:601) highlights that there is a need for further research exploring the impact of the GFC on the private rented sector, with much existing research having focused on sub-prime mortgages and home ownership. Further, again with regards to the GFC, Maclennan and O’Sullivan (2011:375) “explore the implications of observed national housing sector experiences across the advanced economies before, through and out of the ‘Great Financial Crisis’ of 2008.” They highlight the potential for “housing sectors [to] play [a] transformative rather than just passive role in shaping national economic outcomes,” viewing this as a gap in current “empirical and theoretical explanations” (Maclennan & O’Sullivan, 2011:375). This relates to the discussion previously regarding understandings of resilience as “conservative” or “progressive” in relation to responding to crises (Raco & Street, 2012). This is a key consideration for this study which will examine the resilience of these two institutions in the context of the GFC and Covid-19.

Yet, as introduced previously, Porter et al. (2018) are somewhat critical of the term resilience and its applicability and utility for housing studies, questioning “[t]o what extent... can resilience thinking positively contribute to housing theory and policy?” (ibid.:390). To do this, they highlight the need to “critically appraise some of the assumptions” behind resilience as a concept and to “interrogate their often too-easy application to areas of social science and policy” (ibid.:390). They highlight the “potential problems” of “applying natural science thinking to social phenomena,” emphasising that “housing, or the city or any other social phenomena is always tied into webs of cultural and socio-economic significance” (ibid.:390). They thus argue that the housing “system” is “socially constructed” and more than just “a system,” with a need to recognise that “crises in housing are the product of social choice and values” (ibid.:390; italics in original). Secondly, they highlight that “the definition of system boundaries, the end goal of a system and its disturbance tolerance levels are all political questions” (ibid.:390). They emphasise the need to recognise issues of “equity and justice,” with consideration of which individuals or groups of people are most adversely affected by crises, and “on whose terms is it decided how much disturbance is acceptable to the housing system” (ibid.:390). Similarly, Cretney (2014:627) highlights the need to consider “what is being maintained, for whom and by whom, through these discourses of resilience?” These are all critical questions for the current study. It will be crucial to explore what resilience means for these housing market institutions, and the organisations and individuals that comprise them; what its purpose or aim is; what the nature of government intervention is; and whose purpose(s) it serves (see Porter et al., 2018).

Researchers have also highlighted the need to learn from previous crises in order to be more resilient when responding to future crises, such as in relation to the GFC of 2007/08 and the Covid-19 pandemic (Keenan, 2020; Buckley et al., 2020). For example, Haubrich (2020) highlights the learning that can be applied from the GFC to the current context of Covid-19 in relation to the financial sector more broadly. This is the focus of the next section.

The Global Financial Crisis

There has been much research seeking to better understand the causes of the Global Financial Crisis in order to reduce the future risk of another similar crisis occurring (for example, Maclennan & O'Sullivan, 2011; Whitehead & Williams, 2011). For example, Lee (2019:1204) argues that the GFC was a "slow-burn event," with its origins lying in many decades prior (see also Whitehead & Williams, 2011:1157). However, others have argued that it was inevitable, and that something else would have triggered it if it was not the American sub-prime market. Kemp (2015:601) highlights that housing was central to the Global Financial Crisis and subsequent recession and that, "the GFC, in turn, has had a profound impact on the housing market."

Dowell-Jones and Buckley (2017:1), writing from a legal perspective, apply a social-ecological systems understanding of resilience to international finance more broadly to explore the extent to which the financial industry has sought to adapt and increase its resilience since the GFC. They (ibid.:3) highlight the complexities of applying resilience to finance "because it does not immediately offer a practical, concrete agenda for reform specific to the financial markets." Related to the debates discussed in section five regarding "progressive" and more "conservative" understandings of resilience (Raco & Street, 2012), they argue that "postcrisis financial regulation has in fact sought to build a stronger, more robust system, not a more resilient one" (Dowell-Jones & Buckley, 2017:1). Thus, they argue that:

"the regulation imposed on global systematically important financial institutions is designed to make these institutions too strong to fail, not give them the capacity to reorganise themselves, or transition to a new equilibrium, in the face of major external shocks" (ibid.).

They identify the challenge of understanding resilience as it relates to financial institutions, given "the complexity and lack of transparency of today's global financial markets" and how they relate to other societal institutions and structures, with a need to map "the key structural attributes of a system and its essential dynamics, interdependencies and feedback loops" (Dowell-Jones & Buckley, 2017:3-4). Thus, they argue that:

"...While there is wide-ranging stakeholder agreement on the value of increased financial system resilience, resilience does not in and of itself offer an immediate agenda for reform, and despite the frequent use of the term in regulatory debate, no one really knows whether the postcrisis regulatory changes will have this effect" (Dowell-Jones & Buckley, 2017:4).

Dowell-Jones and Buckley (2017:4) therefore question "whether we understand the financial system sufficiently well to even be able to develop a regulatory agenda for resilience." They identify that:

"one of the key issues in defining an agenda for a resilient financial system is to understand the nature, structure and key characteristics of the financial system. Given the scale, complexity and rapid growth of financial markets, this is not self-evident, as the system has fundamentally changed over the last two decades..." (Dowell-Jones & Buckley, 2017:8).

More recently, Buckley et al. (2020:iv), again from a legal perspective, have highlighted how vulnerability and crisis “appear to be an integral feature of market-based financial systems,” regardless of the development “of sophisticated risk management tools and regulatory systems.” They suggest that this highlights “how difficult it is to diversify away systemic risk” (ibid.). Regardless, they argue that:

“the best way to deal with preventing and addressing major financial crises is to build the defences of the financial system, including effective institutions, while at the same time trying to identify potential sources of crisis. We should take every opportunity to learn and work to build stronger and more effective financial systems” (ibid.).

While this work relates to the resilience of the financial system more broadly, these issues and questions arguably relate to the housing system and its institutions more specifically too, given its increasing complexity (Porter et al., 2018). The housing market was greatly detrimentally affected by the GFC, with Priemus and Whitehead (2014) highlighting that the GFC’s impacts were fairly long-lasting, despite credit crises typically being short-term. There is therefore a need to better understand how the resilience of these institutions could be strengthened, with what reforms, and what the intended and unintended consequences of such reforms could be (Haubrich, 2020).

There has also been research seeking to better understand “the relationship between an economic crisis (in particular a credit crunch) and national housing systems” (Priemus & Maclennan, 2011:237). This was the aim of the special issue in *Journal of Housing and the Built Environment* in 2011, which sought “to identify which institutions, policies and characteristics determine the resilience of housing systems and then to suggest how the resilience of these systems could be improved” (Priemus & Maclennan, 2011:237). They note how different housing institutions experienced varying impacts, with “the mortgage market...[being] particularly hard hit” (ibid.:241).

While not specifically interrogating the notion of resilience, Whitehead and Williams (2011:1158) note the particularities of the UK housing system, with a question of how far these affected (detrimentally or otherwise) the system’s response to the GFC. They identify these as a prioritisation of owner occupation within the fiscal system (and a reliance on house price increases), “a highly deregulated mortgage market” since the 1980s, which is fairly concentrated, with “a relatively small number of large players”; continuing issues of supply; and “very considerable volatility in house prices and market activity associated with changes in demand arising from variations in economic growth and expectations (Barker, 2004; JRF, 2011; OECD, 2011; Stephens et al., 2005)” (Whitehead & Williams, 2011:1158). They argue that while “[t]he crisis affected the whole of the financial system... the impacts were most immediate on the mortgage industry” (Whitehead & Williams, 2011:1160). They cite the Turner Review of March 2009 (Turner, 2009:6) which “identified five key features... [which] played a crucial role in increasing systemic risks contributing to the credit boom in the upswing and exacerbating the self-reinforcing nature of the subsequent downswing”:

1. “The growth of the financial sector
2. Increasing leverage in many forms
3. Changing forms of maturity transformation
4. Misplaced reliance on sophisticated maths
5. Hard-wired procyclicality.” (ibid.).

This review uses the term resilient/cr six times but without a clear definition, again highlighting how the term is often deployed in policy circles.

In response, Whitehead and Williams (2011:1161) cite that the government responded by introducing various policies “aimed at supporting and sustaining the core elements of the banking system, protecting household savings and ensuring there was funding available to support a degree of economic activity.” Yet, they do not state whether the aim of these was to achieve resilience. In terms of housing specifically, the government aimed to “support existing homeowners, the housing market and the construction industry” (Whitehead & Williams, 2011:1162), leading to “a massive restructuring of the mortgage industry, including large-scale nationalisation and the near closure of wholesale funding markets” (Scanlon & Whitehead, 2011, cited Whitehead & Williams, 2011:1160). They argue that these “policy solutions have ameliorated, but not fully resolved these pressures” from the GFC (ibid.:1157), with the argument that “[t]he crisis has thus generally exacerbated, rather than helped resolve, the UK’s fundamental and long-standing housing problems” (ibid.:1167). These issues may thus affect the resilience of housing institutions to the current crisis, the Covid-19 pandemic; this is one of the aims of this project. The next section examines the limited literature on the Covid-19 pandemic.

The Covid-19 Pandemic

In popular discourse and grey literature, there has been much discussion of individual and community resilience in relation to the Covid-19 pandemic, with recognition that the impacts of the pandemic, and people’s abilities to respond to them, are not evenly distributed (for example, Bellizzi, 2020; Harkins, 2020; Hinsliff, 2020; Masten, 2020).

In one of a limited number of studies considering what the potential impacts of the Covid-19 pandemic might be on housing markets, Francke and Korevaar (2020) analyse previous epidemics and the impact they have had on house prices. They take a historical perspective and focus on the 17th century plague in Amsterdam and 19th century cholera in Paris. They analysed “micro-level transaction data” finding that “outbreaks resulted in large declines in house prices, and smaller declines in rent prices,” with “particularly large reductions in house prices during the first six months of an epidemic, and in heavily-affected areas” (ibid.:1). Yet, they found that “these price shocks were only transitory, and both cities quickly reverted to their initial price paths,” thus demonstrating a high degree of resilience (ibid.:1). While the authors urge caution about how applicable these historical events are given that “today’s economies are different from historical Amsterdam and Paris, and the current pandemic will almost certainly result in lower mortality rates,” they suggest that “[o]n the one hand, these epidemics might be the closest comparison to the current situation in major cities,” given that they both caused “a large number of deaths and... major disruptions to economic activity... in growing cities with a substantial flow of migrants and large buy-to-let property markets” (ibid.:3).

Furthermore, Haubrich (2020), an economist, highlights how the history of the GFC is important for policy-makers in the context of Covid-19, arguing for the need to recognise the complexity of financial and housing markets, with different actors “facing different local conditions, legal structures and types of consumers” (ibid.:4). Thus, they caution that while “[g]overnment regulation can help keep the financial system stable... the market often reacts in ways that lead to an unexpected outcome, and a poorly designed policy can have perverse effects” (ibid.:4).

As the UK emerged from the first lockdown in May/ June 2020, there was much speculation as to why the housing markets across the UK have not yet been as adversely affected by the Covid-19 pandemic as was anticipated (Hudson, 2020).¹ At that time, Hudson (2020:no page) identified that mortgage holidays and furlough schemes may have helped to reduce the negative impact on housing markets, with much uncertainty about what the impacts will be as these relief measures are withdrawn. Yet, he commented that despite the buoyancy of the market at that time:

“it seems unlikely that the market can remain immune forever. The failure of a Covid-19 vaccine to appear in the coming months and a no-deal Brexit are both real possibilities. Furloughs, bans on repossessions, mortgage holidays and the stamp duty holiday will all end. Even so, a future of persistently high house prices at much lower transaction levels is a real possibility” (ibid.).

While some of these uncertainties have now been ameliorated (a Covid-19 vaccine for example), there remains much uncertainty going forward regarding the impacts of the Covid-19 pandemic on housing market institutions, with a need to better understand how far they have adapted (and become more resilient) since the GFC. This will be the focus of this project, which is tracing the impacts of these crises on two key institutions: the housebuilding industry and the mortgage and exploring how far their resilience has been strengthened or otherwise since the GFC. The next section outlines literature regarding resilience as it has been applied to organisations, recognising that the institutions of interest here are made up of multiple individual organisations.

¹This trend has since continued, with the ongoing strength of private housing markets worldwide. In seeking to “analyse the effects of the Covid-19 pandemic on house prices,” Duca et al. (2021: p.1) “analyse the effects of the Covid-19 pandemic on house prices,” arguing that “the resilience of house prices is not only because of the low-interest rate environment and government efforts to support firms and households, but also behavioural factors.” They note differences in house prices depending on location and property type, finding that “in some locations, the price of condominiums has declined relative to the price of detached houses,” perhaps as those households with the economic means “are seeking more space and larger units as a result of the crisis” (Duca et al., 2021: p.1).

7. Resilience as applied to Organisations/ Institutions

Gunderson and Pritchard (2002:6, cited in DesJardine et al., 2019:1436) define organisational resilience as “both the ability of a system to persist despite disruptions and the ability to regenerate and maintain existing organisation.” For example, Brunsdon and Dalziell (2005:27) highlight the importance of better understanding the factors that make organisations resilient, given the crucial role that organisations play within society, noting how organisations “have responsibility for managing, maintaining and operating our infrastructure, creating our economy, and providing employment and essential goods and services for our communities.” Brunsdon and Dalziell (2005:27) thus argue that “[a]n organisation’s ability to respond effectively to adverse events depends on their structure, the management and operational systems they have in place, and the collective resilience of these.” Another key consideration when examining the resilience of organisations, and particularly in the context of market-based housing institutions, the focus here, is the concept of risk, with Keenan (2020:2) suggesting that resilience is required where risk management has failed (see also Brunsdon & Dalziell, 2005; Bhamra et al. 2011).

This is a crucial consideration for this project which will explore the resilience of these institutions to the GFC and Covid-19 crises, including the management of risk. There is a need for further empirical research applying resilience to organisations, and groups of housing organisations, or sectors, with much existing research being theoretical in focus (Bhamra et al., 2011; Burnard & Bhamra, 2011; Porter et al., 2018).

Nevertheless, scholars have noted that there has been increasing work seeking to apply the concept of resilience within organisational studies, considering its utility here (Bhamra et al., 2011). As mentioned previously, there has been a growth of research examining the role of resilience within public policy (see Shaw, 2012a; Jacobs & Malpass, 2018) and thus also applying the term to public sector organisations, such as local authorities (for example, Shaw, 2012a; John, 2014). Further, Gibb and McNulty (2014) and Gibb et al. (2016) examine the resilience of social housing providers and their tenants in the context of ‘welfare reform’ since the GFC and implementation of austerity. Bhamra et al. (2011) have explored the utility of resilience as it relates to Small and Medium-sized Enterprises (SMEs). They argue that literature on resilience is theoretically strong but empirically weak, a trend that is also noted in other disciplines:

“there is little on how organisations, particularly SMEs, can achieve degrees of resilience. For the theory to be of value in the real world, more real world-based research needs to be done, particularly focused on empirical methods such as case study and survey which can significantly add to and validate theoretical constructs”
(Bhamra et al., 2011:5388).

Through their review of existing literature, while Bhamra et al. (2011:5388) identify 21 studies which used a case study approach, they found only three of these used “the organisation as their point of perspective.” Likewise, Burnard and Bhamra (2011:5583) highlight the need for more research on resilience at the organisational level as, despite growing academic literature, they argue that “the concept and features of organisational resilience have remained largely undefined and ambiguous.” These studies again highlight the need for more research with an empirical focus, both within organisational studies and housing studies, applying and exploring resilience with empirical examples, the focus here.

Regarding the resilience of social housing providers, Gibb and colleagues have made a key contribution. Gibb and McNulty (2014:349) examined the resilience of housing associations to the GFC and its impacts and ‘welfare reform’ policies since 2012, with the former being associated with a reduction in grant funding for new build, and the latter affecting housing associations indirectly due to a reduction in tenants’ incomes. They argue that “[m]anagers of non-profit housing providers need to focus on both risk and resilience if they are to successfully combine conventional business accountability with their obligations to tenants and the local communities their organisations serve” (ibid.:349).

Moreover, Gibb et al. (2016:435) explored the resilience of social housing providers in the context of changes to the Scottish social housing sector, based “on elite interviews” and “case studies that seek to capture the range of approaches adopted by providers.” They used Hamel and Valikangas’ (2003) understanding of the “adaptability of an organisation,” highlighting the need for organisations “to go beyond merely responding to setbacks” (Gibb et al., 2016:442). The study found that “[a]lthough providers handle and respond to risk in a variety of ways, risk management is a necessary part of the management of social housing businesses,” with an increasing focus on resilience, both in terms of “the need to make themselves as organisations more resilient and also to promote greater resilience amongst tenants as a way of mitigating risk,” with a trend towards “hybridity” for social housing organisations as they seek to “respon[d] to market and other external pressures” (Gibb et al., 2016:435). They found that while adaptability may have brought some “positive outcomes e.g. greater diversity within the sector and increased customer focus,” there may be a need for greater flexibility within government policies and more collaboration between different policy areas “to deal with changed circumstances and the evolving needs and aspirations of the sector” (Gibb et al., 2016:435). Yet, the current study is focussed on market-based institutions, rather than social housing, as there is a need for further research exploring issues of resilience in the context of crises for these groups of organisations.

Specifically regarding the resilience of public sector organisations, precisely local authorities, Shaw (2012a:281) explores the utility of resilience for better understanding “the challenges facing local authorities in the UK” and how they “can be reformulated and reinterpreted” (see also John, 2014). Drawing on the work of Moser (2008), he identifies a gap on “how local authorities [can] facilitate and build resilience” (Shaw, 2012a:282). He draws on the debates discussed in section five, regarding more ‘radical’ understandings of resilience, with the view that “transformative” resilience and the “focus on ‘bouncing forward’ from external shocks...[can offer] a more radical framework within which the opportunities for local innovation and creativity can be assessed and explained” (ibid.:281). While recognising the critiques of resilience, Shaw (2012a:281) seeks to highlight case studies of “where local authorities – and crucially, local communities – have enhanced their adaptive capacity, within existing powers and responsibilities” (ibid.). This, he argues, allows greater potential for local authorities to become resilient, “draw[ing] upon existing resources and capabilities, promoting a strategic approach to risk, exhibiting greater ambition and imagination, and creating space for local communities to develop their own resilience” (Shaw, 2012a:281). He thus identifies four aspects of the “resilient local authority”: “innovation, managing risk, strategic leadership and enhancing the involvement of civil society” (Shaw, 2012a:289-290).

Despite this work, scholars have identified a need for further research regarding the resilience of organisations (Bhamra, 2011; Gibb et al., 2016) and also the relationship between organisational and individual resilience (Gibb et al., 2016). For example, DesJardine et al. (2019:1436) state that the management studies literature regarding resilience has tended to focus on the individual level, with a focus on “positive psychology” and “studying the antecedents and outcomes of employees’ resilience.” Yet, as Gibb et al. (2016:443) note, “individual resilience underpins organisational resilience,” with “a resilient organisation [being] one that has the correct people with the correct skills.” Thus, Bhamra et al. (2011:5375) argues that there is a need for additional research exploring “the relationship between human and organisational resilience” (see also Burnard & Bhamra, 2011). Bhamra et al. (2011:5388) thus highlight a need to explore the potential contribution of using a case study approach. Specifically regarding housebuilding, Payne (2020:269) highlights the need for further research in housing studies regarding “the influence and contribution of actor behaviour and organisational decision making in explaining housing supply outcomes.” She highlights the need for “housing scholars...[to] consider the risk appetite and risk profiles of speculative housebuilders when undertaking comparative research to account for how housebuilders may better insulate themselves to future institutional shock and how policy-makers may better secure their housing supply fortunes” (Payne, 2020:285).

This section has thus highlighted the ways in which resilience has been explored in relation to organisations and organisational studies, and highlighted a need for more empirical studies, particularly of a case study nature (Bhamra et al., 2011). Thus, the current study seeks to contribute to these gaps in terms of the application of resilience to empirical case studies of market-based housing institutions in the UK in the context of crises.

8. Conclusion

This literature review aimed to develop the concept of resilience from the broader literature and to outline literature relating to housing and resilience, to inform the current research agenda. This will consider how far the market-based institutions of interest learnt from the GFC and how far, if at all, it enabled them to be resilient to Covid-19 crisis. The literature review has traced the origins of resilience within the academic literature, also highlighting the challenges of defining resilience, and discussed the application of the term within public policy, thus leading to a growth of academic research on the topic. It has discussed debates regarding resilience which are relevant here, particularly regarding the equilibrium model, and questions of whether resilience is an inherently “conservative” concept, or if it can be used for more “radical agendas” (Raco & Street, 2012). It then discussed resilience as it applies to housing studies and crises (the GFC and Covid-19 pandemic), followed by resilience as it applies to organisations, given the focus here on market-based housing institutions which are comprised of multiple organisations.

The review has highlighted how resilience has been used across a wide range of disciplines and at a variety of scales, including to explore crises such as the GFC. There has also been increasing application within housing studies and organisational studies. Yet, as Wang (2016:59) asserts, “studies on resilience of the housing market from economic shocks are scarce,” and scholars have highlighted a need for further empirical studies of resilience within housing studies and of organisations. Further, there is seemingly a need for further research exploring the resilience of groups of organisations i.e. institutions (the focus here). This study will therefore seek to contribute to these gaps by assessing the evolution of the housing system between the start of the GFC in 2007/08 and the Covid-19 crisis in 2020, in particular considering in what respects its resilience was strengthened or undermined during this period. This will be done by focussing on two market-based institutions: the mortgage industry (UK) and the housebuilding industry (England and Scotland).

References

- Adger, W. N. (2000) Social and ecological resilience: are they related?, *Progress in Human Geography*, 24(3), pp. 347-364. Cited in Cretney, R. (2014) Resilience for Whom? Emerging Critical Geographies of Socio-ecological Resilience, *Geoforum*, 8/9, pp. 627-640
- Adger, W. N. (2005) Social-ecological resilience to coastal disasters, *Science*, 309(5737), pp. 1036-1039. Cited in Cretney, R. (2014) Resilience for Whom? Emerging Critical Geographies of Socio-ecological Resilience, *Geoforum*, 8/9, pp. 627-640
- Adger, N. (2010) An interview with Neil Adger: resilience, adaptability, localisation and transition. *Transition Culture* [online]. Available from: <https://www.transitionculture.org/2010/03/26/an-interview-with-neil-adger-resilience-adaptability-localisation-and-transition/>. [Accessed 20 October 2020]
- Barker, K. (2004) *Delivering Stability: Securing our Future Housing Needs. Barker Review of Housing Supply – Final Report – Recommendations*. London: HM Treasury
- Bellizzi, K. M. (2020) Developing resilience is an important tool to help you deal with coronavirus and the surge in cases, *The Conversation*, 25 June. Available online at: <https://theconversation.com/developing-resilience-is-an-important-tool-to-help-you-deal-with-coronavirus-and-the-surge-in-cases-140412>. [Accessed 20 October 2020]
- Berkes, F. (2007) Understanding Uncertainty and Reducing Vulnerability: Lessons from resilience thinking, *Springer Natural Hazards*, 41, pp. 283-295. Cited in Cretney, R. (2014) Resilience for Whom? Emerging Critical Geographies of Socio-ecological Resilience, *Geoforum*, 8/9, pp. 627-640
- Bhamra, R., Dani, S. and Burnard, K. (2011) Resilience: The concept, a literature review and future directions, *International Journal of Production Research*, 49(18), pp. 5375-5393
- Birkland, T. (2016) Conceptualising Resilience, *Politics and Governance*, 4(4), pp. 117-120
- Brunsdon, D. and Dalziell, E. (2005) *Making Organisations Resilient: Understanding the Reality of the Challenge*. Rotorua, New Zealand: Centre for Advanced Engineering (CAE) Resilient Infrastructure 2005, 8-9 Aug.
- Buckley, R., Avgouleas, E. and Arner, D. (2020) Three Decades of International Financial Crises: What have we learned and what still needs to be done? ADB Economics Working Paper Series (No. 615)
- Burnard, K. and Bhamra, R. (2011) Organisational resilience: development of a conceptual framework for organisational responses, *International Journal of Production Research*, 49(18), pp. 5581-5599
- Chandler, D. (2013) Editorial, *Resilience*, 1(1), pp. 1-2
- Chandler, D. (2014) Beyond Neoliberalism, *Resilience, the New Art of Governing Complexity, Resilience: International Policies, Practices and Discourses*, 2(1), pp. 47-63. Cited in Jacobs, K. and Malpas, J. (2018) The Language of Resilience: Ideas and Action in Contemporary Policy-making, *Housing, Theory and Society*, 35(4), pp. 394-409
- Chandler, D. (2019) Resilience and the end(s) of the politics of adaptation, *Resilience*, 7(3), pp. 304-313
- Chaskin, R. J. (2008) Resilience, community, and resilient communities: conditioning contexts and collective action, *Child Care in Practice*, 14(1), pp. 65-74. Cited in Cretney, R. (2014) Resilience for Whom? Emerging Critical Geographies of Socio-ecological Resilience, *Geoforum*, 8/9, pp. 627-640
- Coaffee, J. and Rogers, P. (2008) Rebordering the city for new security challenges: from counter-terrorism to community resilience, *Space and Polity*, 12(1), pp. 101-118
- Cote, M. and Nightingale, A. J. (2012) Resilience thinking meets social theory: situating social change in socio-ecological systems (SES) research, *Progress in Human Geography*, 36(4), pp. 475-489
- Cretney, R. (2014) Resilience for Whom? Emerging Critical Geographies of Socio-ecological Resilience, *Geoforum*, 8/9, pp. 627-640
- Cutter, S. L., Barnes, L., Berry, M., Burton, C., Evans, E., Tate, E. and Webb, J. (2008) A place-based model for understanding community resilience to natural disasters, *Global Environmental Change*, 18(4), pp. 598-606. Cited in Cretney, R. (2014) Resilience for Whom? Emerging Critical Geographies of Socio-ecological Resilience, *Geoforum*, 8/9, pp. 627-640
- Cutter, S., Burton, C., and Emrich, C. (2010) Disaster resilience indicators for benchmarking baseline conditions, *Journal of Homeland Security and Emergency Management*, 7(1), Article 51
- DesJardine, M., Bansal, P. and Yang, Y. (2019) Bouncing Back: Building Resilience Through Social and Environmental Practices in the Context of the 2008 Global Financial Crisis, *Journal of Management*, 45(4), pp. 1434-1460
- Dowell-Jones, M. and Buckley, R. (2017) Reconciling Resilience: A New Guiding Principle for Financial Regulation?, *Northwestern Journal of International Law and Business*, 37(1), pp. 1-33

- Duca, J.V., Hoesli, M. and Montezuma, J. (2021) The resilience and realignment of house prices in the era of Covid-19", *Journal of European Real Estate Research*, [ahead of print]. <https://doi.org/10.1108/JERER-11-2020-0055>
- Fainstein, S. S. (2018) Resilience and justice: Planning for New York City, *Urban Geography*, 39(8), pp. 1268-1275
- Fiksel, J. (2003) Designing resilient, sustainable systems, *Environmental Science and Technology*, 37(23), pp. 5330–5339
- Folke, C. (2006) Resilience: the emergence of a perspective for social–ecological systems analyses, *Global Environmental Change*, 16(3), pp. 253-267. Cited in Cretney, R. (2014) Resilience for Whom? Emerging Critical Geographies of Socio-ecological Resilience, *Geoforum*, 8/9, pp. 627-640
- Folke, C., Carpenter, S. R., Walker, B., Scheffer, M., Chapin, T. and Rockström, J. (2010) Resilience Thinking: Integrating Resilience, Adaptability and Transformability, *Ecology and Society*, 15(4)
- Francke, M. and Korevaar, M. (2020) Housing Markets in a Pandemic: Evidence from Historical Outbreaks (September 23, 2020). Available at: <http://dx.doi.org/10.2139/ssrn.3566909>. [Accessed 20 August 2020]
- Gibb, K. and Marsh, A. (2019) Housing and Systems Thinking: Working Paper. Glasgow: UK Collaborative Centre for Housing Evidence. Available at: https://housingevidence.ac.uk/wp-content/uploads/2019/07/Housing-and-Systems-briefing-paper_final_170704.pdf. [Accessed 30 August 2021]
- Gibb, K. and McNulty, D. (2014) Risk, Resilience and effectiveness in the non-profit sector: the case of housing associations, *Journal of Organisational Effectiveness: People and Performance*, 1(4), pp. 349-364
- Gibb, K., McNulty, D. and McLaughlin, T. (2016) Risk and resilience in the Scottish social housing sector: "We're all risk managers," *International Journal of Housing Policy*, 16(4), pp. 435-457
- Gibson, C. A. & Tarrant, M. (2010) A 'conceptual models' approach to organisational resilience, *Australian Journal of Emergency Management*, 25(2), pp. 6-12
- Godschalk, D. R. (2003) Urban hazard mitigation: creating resilient cities, *Natural Hazards Review*, 4(3), pp. 136-143. Cited in Cretney, R. (2014) Resilience for Whom? Emerging Critical Geographies of Socio-ecological Resilience, *Geoforum*, 8/9, pp. 627-640
- Gunderson, L. (2000) Ecological resilience – in theory and application, *Annual Review of Ecology and Systematics*, 31, pp. 425-439. Cited in Cretney, R. (2014) Resilience for Whom? Emerging Critical Geographies of Socio-ecological Resilience, *Geoforum*, 8/9, pp. 627-640
- Gunderson, L. (2010) Ecological and human community resilience in response to natural disasters, *Ecology and Society*, 15(2), p. 18. Cited in Cretney, R. (2014) Resilience for Whom? Emerging Critical Geographies of Socio-ecological Resilience, *Geoforum*, 8/9, pp. 627-640
- Gunderson, L. and Pritchard, L. (eds.) (2002) Resilience and the behaviour of large-scale systems. Washington, DC: Island Press. Cited in DesJardine, M., Bansal, P. and Yang, Y. (2019) Bouncing Back: Building Resilience Through Social and Environmental Practices in the Context of the 2008 Global Financial Crisis, *Journal of Management*, 45(4), pp. 1434-1460
- Hamel, G., & Valikangas, L. (2003). The Quest for Resilience. In *Harvard business review*, September 2003, Product 4910. Cited in Gibb, K., McNulty, D. and McLaughlin, T. (2016) Risk and resilience in the Scottish social housing sector: "We're all risk managers," *International Journal of Housing Policy*, 16(4), pp. 435-457
- Harkins, C. (2020) Supporting community recovery and resilience in response to the Covid-19 pandemic – a rapid review of evidence. Glasgow: GCPH
- Harrow, J. (2009) Leadership and resilience: local communities and services in a time of fragmentation: are there reasons to be cheerful? Paper given at the Public Policy Seminar, University of Edinburgh Business School, 30 October. Cited in Shaw, K. (2012a) The Rise of the Resilient Local Authority?, *Local Government Studies*, 38(3), pp. 281-300
- Haubrich, J. (2020) Financial Stability: Risks, Resilience, and Policy. *Economic Commentary*, Federal Reserve Bank of Cleveland, 2020(20), pp. 1-4, August 6, 2020
- Hawtin, M. and Kettle, J. (2000) Chapter 6: Housing and Social Exclusion. In Percy-Smith, J. (ed.) (2000) *Policy Responses to Social Exclusion: towards inclusion?* Berkshire: Open University Press, pp. 107-129
- Hinsliff, G. (2020) Rachel Reeves: "Covid-19 has revealed we need to be more resilient", *The Guardian*, 4 September. Available online at: <https://www.theguardian.com/politics/2020/sep/04/labour-mp-rachel-reeves-covid-19-has-revealed-we-need-to-be-more-resilient>. [Accessed 20 October 2020]
- Holling, C. S. (1973) Resilience and Stability of Ecological Systems, *Annual Review of Ecology and Systematics*, 4(1), pp. 1-23
- Holling, C. (1996). Engineering resilience versus ecological resilience. In: P. Shulze (ed.) *Foundations of ecological resilience*. Washington DC: National Academy Press, pp. 31– 44. Cited in Cretney, R. (2014) Resilience for Whom? Emerging Critical Geographies of Socio-ecological Resilience, *Geoforum*, 8/9, pp. 627-640
- Hudson, N. (2020) High house prices paint a partial picture of UK real estate, *Financial Times*, September 6. Available online: <https://www.ft.com/content/271ba975-34ce-4220-8cee-4433b15ada31>. [Accessed 09 September 2020]
- Hudson, R., 2010. Resilient regions in an uncertain world: wishful thinking or practical reality, *Cambridge Journal of Regions, Economy and Society*, 3, pp. 11-25. Cited in Shaw, K. (2012a) *The Rise*

- of the Resilient Local Authority?, *Local Government Studies*, 38(3), pp. 281-300
- Jacobs, K. and Malpas, J. (2018) The Language of Resilience: Ideas and Action in Contemporary Policy-making, *Housing, Theory and Society*, 35(4), pp. 394-409
- Jerneck, A. and Olsson, L. (2008) Adaptation and the poor: development, resilience and transition, *Climate Policy*, 8(2), pp. 170-182. Cited in Cretney, R. (2014) Resilience for Whom? Emerging Critical Geographies of Socio-ecological Resilience, *Geoforum*, 8/9, pp. 627-640
- John, P. (2014) The Great Survivor: The Persistence and Resilience of English Local Government, *Local Government Studies*, 40(5), pp. 687-704
- Joseph, J. (2013) Resilience as embedded neoliberalism: a governmentality approach, *Resilience*, 1, pp. 38-52. Cited in Cretney, R. (2014) Resilience for Whom? Emerging Critical Geographies of Socio-ecological Resilience, *Geoforum*, 8/9, pp. 627-640
- Joseph Rowntree Foundation (2011) Tackling Housing Market Volatility in the UK. Housing Market Taskforce. Report authored by Mark Stephens. York: JRF. Cited in Whitehead, C. and Williams, P. (2011) Causes and consequences - Exploring the shape and direction of the housing system in the UK post the Financial Crisis, *Housing Studies*, 26(7-8), pp. 1157-1169
- Keenan, J. M. (2020) Covid, Resilience and the built environment, *Environment Systems and Decisions*, 1-6. [Advance online publication]
- Kemp, P. A. (2015) Private Renting after the Global Financial Crisis, *Housing Studies*, 30(4), pp. 601-620
- Lee, P. (2019) An evolutionary approach to regional housing resilience: the role of agency and the 'epistemic community', *Housing Studies*, 34(7), pp. 1189-1211
- MacKinnon, D. and Derickson, K. D. (2012) From resilience to resourcefulness: a critique of resilience policy and activism, *Progress in Human Geography*, 37(2), pp. 253-270. Cited in Cretney, R. (2014) Resilience for Whom? Emerging Critical Geographies of Socio-ecological Resilience, *Geoforum*, 8/9, pp. 627-640
- MacLennan, D. and O'Sullivan, A. (2011) The global financial crisis: challenges for housing research and policies, *Journal of Housing and the Built Environment*, 26(3), pp. 375-384
- Masten, A. (2020) Speaking of Psychology: The Role of Resilience in the Face of Covid-19 with Ann Master, PhD. Online at: <https://www.apa.org/research/action/speaking-of-psychology/human-resilience-covid-19>. [Accessed 20 October 2020]
- Maurer, A. (2016) New Perspectives on Resilience in Socio-Economic Sphere. In Maurer, A. (ed.) *New Perspectives on Resilience in Socioeconomic Spheres*. Springer
- McGlade, J., Murray, R., Baldwin, J., Ridgway, K. and Winder, B. (2006) Chapter 6: Industrial Resilience and Decline: A Co-evolutionary Framework, pp. 147-177. In Garnsey, E. and McGlade, J. (eds) *Complexity and Co-Evolution: Continuity and Change in Socio-Economic Systems*. Cheltenham: Edward Elgar
- Morrow, H. (2008) Community resilience: a social justice perspective. CARRI Research Report No 4. Oak Ridge, Tennessee. Cited in Shaw, K. (2012a) The Rise of the Resilient Local Authority?, *Local Government Studies*, 38(3), pp. 281-300
- Moser, S. (2008) Resilience in the face of global environmental change. CARRI Research Report No 2. US Department of Energy: Oak Ridge National Laboratory. Cited in Shaw, K. (2012a) The Rise of the Resilient Local Authority?, *Local Government Studies*, 38(3), pp. 281-300
- Mullins, D. and Murie, A. (2006) *Housing Policy in the UK*. Basingstoke: Palgrave Macmillan
- Nicol, L. A. and Knoepfel, P. (2014) Resilient housing: a new resource-oriented approach, *Building Research & Information*, 42(2), pp. 229-239
- Neocleous, M. (2013) Resisting resilience, *Radical Philosophy*, 178. Cited in Cretney, R. (2014) Resilience for Whom? Emerging Critical Geographies of Socio-ecological Resilience, *Geoforum*, 8/9, pp. 627-640
- Norris, F. H., Stevens, S. P., Pfefferbaum, B., Wyche, K. F. and Pfefferbaum, R. L. (2007) Community resilience as a metaphor, theory, set of capacities, and strategy for disaster readiness, *American Journal of Community Psychology*, 41(1-2), pp. 127-150. Cited in Cretney, R. (2014) Resilience for Whom? Emerging Critical Geographies of Socio-ecological Resilience, *Geoforum*, 8/9, pp. 627-640
- OECD (2011) *OECD Economic Surveys: United Kingdom 2011*. Paris: OECD. Cited in Whitehead, C. and Williams, P. (2011) Causes and consequences - Exploring the shape and direction of the housing system in the UK post the Financial Crisis, *Housing Studies*, 26(7-8), pp. 1157-1169
- OECD (2020) *Housing Amid Covid-19: Policy Responses and Challenges*. Paris: OECD
- O'Malley, P. (2010) Resilient subjects: uncertainty, warfare and liberalism, *Economy and Society*, 39(4), pp. 488-509. Cited in Cretney, R. (2014) Resilience for Whom? Emerging Critical Geographies of Socio-ecological Resilience, *Geoforum*, 8/9, pp. 627-640
- O'Neill, R. V. (1999) Recovery in Complex Ecosystems, *AQUATIC ECOSYSTEMS STRESS & RECOVERY*, 6, pp. 181-187. Cited in Dowell-Jones, M. and Buckley, R. (2017) Reconceiving Resilience: A New Guiding Principle for Financial Regulation?, *Northwestern Journal of International Law and Business*, 37(1), pp. 1-33

- Payne, S. (2020) Advancing understandings of housing supply constraints: housing market recovery and institutional transitions in British speculative housebuilding, *Housing Studies*, 35(2), pp. 266-289
- Porter, L., Steele, L. and Stone, W. (2018) Housing and Resilience – When, for Whom and for What? A Critical Agenda, *Housing, Theory and Society*, 35(4), pp. 387-393
- Priemus, H. and Maclennan, D. (2011) Editorial: The credit crunch, interrelations between (in)stability of housing markets and the general economy: setting the scene, *Journal of Housing and the Built Environment*, 26(3), pp. 237-243
- Priemus, H. and Whitehead, C. (2014) Interactions between the financial crisis and national housing markets, *Journal of Housing and the Built Environment*, 29, pp. 193-200
- Raco, M. and Street, E. (2012) Resilience Planning, Economic Change and The Politics of Post-recession Development in London and Hong Kong, *Urban Studies*, 49(5), pp. 1065–1087
- Rogers, P. (2015) Research resilience: An agenda for change, *Resilience*, 3(1), pp. 55-71
- Rose, N. (2014) From Risk to Resilience: Responsible Citizens for Uncertain Times. Lecture, University of Melbourne. August 28. Available at: https://www.youtube.com/watch?v=unc2_r_HprA. [Accessed 21st February 2017]. Cited in Jacobs, K. and Malpas, J. (2018) The Language of Resilience: Ideas and Action in Contemporary Policy-making, *Housing, Theory and Society*, 35(4), pp. 394-409
- Scanlon, K. and Whitehead, C. (2011) The UK Mortgage market – responding to volatility, *Journal of Housing and the Built Environment*, 26(3), pp. 277-293
- Seaman P, McNeice V, Yates G, and McLean, J. (2014) Resilience for public health. Glasgow: GCPH
- Seville, E. (2008) Resilience: Great concept... but what does it mean? Complete Briefing Bite – Paper presented at the US Council on Competitiveness Workshop, Risk and Resilience. Wilmington, USA.
- Shaw, K. (2012a) The Rise of the Resilient Local Authority?, *Local Government Studies*, 38(3), pp. 281-300
- Shaw, K. (2012b) 'Reframing' Resilience: Challenges for Planning Theory and Practice,' *Planning, Theory & Practices*, 13(2), pp. 3008–3012. Cited in Jacobs, K. and Malpas, J. (2018) The Language of Resilience: Ideas and Action in Contemporary Policy-making, *Housing, Theory and Society*, 35(4), pp. 394-409
- Slater, T. (2014) The resilience of neoliberal urbanism, *Open Democracy*, 28 January. Available online at <https://www.opendemocracy.net/en/opensecurity/resilience-of-neoliberal-urbanism/>. [Accessed 20 October 2020]
- Stephens, M., Whitehead, C. & Munro, M. (2005) Lessons from the Past; Challenges for the Future for Housing Policy. An Evaluation of English Housing Policy 1975–2000. London: ODPM. Cited in Whitehead, C. and Williams, P. (2011) Causes and consequences - Exploring the shape and direction of the housing system in the UK post the Financial Crisis, *Housing Studies*, 26(7-8), pp. 1157-1169
- Turner, A. (2009) The Turner Review – a Regulatory Response to the Global Banking Crisis. London: FSA. Cited in Whitehead, C. and Williams, P. (2011) Causes and consequences - Exploring the shape and direction of the housing system in the UK post the Financial Crisis, *Housing Studies*, 26(7-8), pp. 1157-1169
- Walker, J. and Cooper, M. (2011) Genealogies of resilience: from systems ecology to the political economy of crisis adaptation, *Security Dialogue*, 42(2), pp. 143-160. Cited in Cretney, R. (2014) Resilience for Whom? Emerging Critical Geographies of Socio-ecological Resilience, *Geoforum*, 8/9, pp. 627-640
- Wang, K. (2016) The characteristics of resilient neighbourhood housing market during and after the US housing crisis. PhD Thesis: Georgia Institution of Technology. Available online at: https://www.researchgate.net/publication/309847969_The_characteristics_of_resilient_neighborhood_housing_market_during_and_after_the_US_housing_crisis?enrichId=rgreq-b9020c497896c331bf1d22761797f6df-XXX&enrichSource=Y292ZXJOYWdlOzMwOTg0Nzk2OTtBUzo4MjAwMjY4Mjc3NjY0MDEBAMTU3MjUyMTA%3D%3D&el=1_x_3&esc=publicationCoverPdf. [Accessed 13 October 2020]
- Whitehead, C. and Williams, P. (2011) Causes and consequences - Exploring the shape and direction of the housing system in the UK post the Financial Crisis, *Housing Studies*, 26(7-8), pp. 1157-1169
- Wilson, G. A. (2013) Community resilience; path dependency, lock-in effects and transitional ruptures, *Journal of Environmental Planning and Management*, 57(1), pp. 1-26
- Windle, G. (2011) What is resilience? A review and concept analysis, *Reviews in Clinical Gerontology*, 21, pp. 152-169
- Zolli, A. and Healey, A. M. (2012) Resilience. London: Headline. Cited in Gibb, K., McNulty, D. and McLaughlin, T. (2016) Risk and resilience in the Scottish social housing sector. "We're all risk managers," *International Journal of Housing Policy*, 16(4), pp. 435-457