


Housing That Works for All

The Political Economy of Housing in England

Miguel Castro Coelho and Vigyan Ratnoo
with Sebastian Dellepiane

An abstract graphic consisting of several parallel diagonal stripes in dark blue and light grey, running from the bottom left towards the top right, occupying the lower right portion of the cover.

About the authors

Miguel Castro Coelho

Miguel is a Fellow at the Institute for Government. He leads the Institute's work on economic growth. He is an economist with extensive experience of working and influencing policy-focused environments. He has played a variety of roles at the heart of Government (providing advice to the Treasury, the Prime Minister's Strategy Unit, and No10); in Government departments (as a strategy advisor to the Department for Education); outside Government, as a leading economist in the Institute for Public Policy Research, an advisor to foreign think tanks, and an economics commentator in the international media.

Vigyan Ratnoo

Vigyan joined the Institute for Government as a Research Assistant at the beginning of 2014 and has been working exclusively on the Political Economy of Growth & Institutional Reform project. He has a postgraduate degree in Economics from the Indian Institute of Technology, Madras and an MSc Economic History from the London School of Economics. His research interests include long run growth and education, particularly from a political economy perspective.

Acknowledgements

We would like to gratefully acknowledge the strategic advice provided by Tim Besley. We are also grateful for helpful suggestions and comments from Howard Reed, Jane-Frances Kelly, Tim Leunig, Owen Donald, William Forward, Coen Teulings and Ralph McLaughlin. In addition, we would like to thank the ESRC for funding, and The Elections Centre, Plymouth, the Centre for Ecology & Hydrology and the Department of Communities & Local Government for help with data matters.

Contents

Introduction	3
Section One: The nature of the problem – immediate causes.....	5
Section Two: The political economy of housing in England – root causes	7
Section Three: Opposition to development – empirical evidence	14
Conclusion	19
Annex 1	21
Definitions and descriptive statistics	23
Owner-occupier households	25
Number of major planning applications relative to dwelling stock	27
Map: Planning applications relative to dwelling stock by district (quartiles)	28
Developable land	29
Map: Built, greenbelt and designated protected areas.....	30
Refusal rates	31
Map: Refusal rates.....	32
Political variables	33
Map: Local councils marked in red denote ‘NOC’ dominated districts	33
Annexe 2: Institutional reform - lessons from other countries.....	35
New York City	36
Vancouver	37
Maryland and Florida	39
Florida’s growth management program	40
Maryland.....	41
Australia.....	42

Introduction

Problems of housing affordability have been afflicting parts of UK for a number of years and are especially acute for families with low to modest incomes (Barker, 2004).¹ The growth of real house prices over the last 40 years in the UK is among the top of the Organisation for Economic Co-operation and Development (OECD) rankings (Figure 1).² The size of new houses has been decreasing and is now smaller than in many other advanced economies such as the Netherlands, Germany and the US, where house prices are also cheaper than in the UK.³

More than 3.3m adults between the ages of 20 and 34 were living with parents in 2013 – more than a quarter of the total – according to data from the Labour Force Survey.⁴ Among those who have afforded to buy a house, it has been estimated that the number of households struggling to keep up with their mortgage payments is likely to double to 2.3m by 2018 under a scenario of small, gradual interest rate rises as suggested by the Bank of England (Blacklock and Whittaker, 2014).⁵

In 2008, the (now defunct) National Housing and Planning Advice Unit noted that the number of households in England was projected to grow by an average of 230,000 per annum till 2020. A plan to reach 270,000 new homes per annum by 2016 was said to be necessary simply to stabilise affordability in the long run.⁶ The latest figure of house completions in England, for 2013, was approximately 109,000.⁷

Existing literature, reviewed in the next section of this paper, suggests that the problem is intimately related to constraints in housing supply. These constraints, in turn, appear to be mainly related to the planning system and the wider institutional environment where it operates.⁸ Such constraints include weak or absent city-wide/regional planning co-ordination; high fiscal centralisation; and ‘development control’ (i.e. any change of land use being subject to planning permissions rather than to a general set of rules).

¹ In England the ratio of lower quartile house prices to lower quartile earnings peaked at 7.2 in 2007. In London, this ratio was 9.0 in 2011 (130% higher than 1997) (Keep, 2012).

² UK house price volatility has also been relatively high. (See Hilber and Vermeulen, 2010).

³ Housing Statistics in the European Union 2010. (See Dol and Haffner 2010).

⁴ Labour Force Survey, Young Adults Living with Parents 1996-2013. (See Demographic Analysis Unit, Office for National Statistics)

⁵ This would mean that one in four households would face repayment problems if rates rose by steps to a moderate 2.9% by 2018.

⁶ Arguably this figure should be revised downwards in light of the effects of the Great Recession on real income – one of the main drivers of housing demand.

⁷ Department for Communities and Local Government statistics on house building in England, December quarter, retrieved on 16 October from <https://www.gov.uk/government/statistical-data-sets/live-tables-on-house-building>

⁸ ‘Planning’ is used here in a relatively broad sense to include: (i) national policy set out in planning acts and planning policy statements; (ii) local plans and development control practice; (iii) other policies and processes (e.g. those related to the provision of infrastructure) that affect the fulfilment of planning conditions.

Previous empirical evidence (mostly from abroad) indicates that, under such a set of arrangements, there is a risk that planning decisions might fail to allow for the full breadth of interests affected by development and be distorted in favour of current homeowners. This paper presents new empirical analysis which suggests this risk is real and economically significant.

Difficulties in reforming the system stem from three main sources. First, rising numbers of owner-occupiers, and rising house prices from the late 70s onwards, have shaped electoral preferences about homeownership and (opposition to) development. Second, as housing wealth has increased, the health of the UK financial sector has become inextricably intertwined with the macro-economy, limiting the scope for fast, radical reform. Third, successive governments have struggled to find ways of ensuring regional/national planning co-ordination while preserving local democratic legitimacy.

The paper is organised as follows. The next section examines the origins of the rise in house prices from the perspective of market fundamentals of supply and demand. Since planning restrictions seem to play dominant role in house price increases in certain parts of the England, Section 3 investigates the root causes of these restrictions, delving into the political economy of planning decisions. Section 4 reviews the existing empirical evidence on what drives opposition to development. It also presents new results from our cross-sectional analysis of the growth of the housing stock in 349 English local planning authorities between 2001 and 2011. Section 5 concludes.

Section One: The nature of the problem – immediate causes

With relatively abundant land and relatively flexible land regulation, house prices would be mainly driven by construction costs, therefore, stable or even slightly decreasing in the long run (Glaeser *et al.* 2008).⁹ This is consistent with evidence from long-run trends in house prices in countries where the supply of land is relatively flexible, e.g. Germany, Switzerland and parts of the US (Figure 1).

It is also consistent with the experience of England and Wales until the late 1960s (Figure 2). Between 1892 and the last pre-WWII population census in 1931, there was a 61% increase in household numbers and a 25% increase in real household incomes, but no increase in the real price of housing land. The construction of transport systems – suburban railways and roads – and other infrastructure, expanded usable urban land supply at a more or less constant real cost.

This contrasts markedly with the post-war experience, after development control was enacted in 1947. Between 1955 and 2008, real house prices increased by a factor of 4.5 (mainly since 1971). This growth was intimately related to the changes in the real price of housing land, which in the same period increased by a factor of 12.3 (Cheshire *et al.*, 2014).

In most local areas in England, the effects of physical constraints (e.g. scarcity of developable land, presence of steep slopes or flood plains) on house prices is generally small (Hilber and Vermeulen, 2012). In the most urbanised areas, lack of developable land is important, but regulatory restrictions (in the form of height restrictions) also play a significant role in constraining development. The Foresight Land Use Futures (2010) showed that 9.95% of England was in urban development, almost half of this in the form of parks or gardens. Domestic and industrial and commercial buildings accounted for just 1.8% of England's surface.¹⁰

Rising house prices in England have been found to be mainly driven by supply constraints associated with the planning system.¹¹ The perverse effects of urban containment policies were noted as early as 1973 (Hall *et al.*, 1973).¹² More

⁹ Due to technical progress in the construction industry.

¹⁰ The Netherlands is the highest density country in Europe, and yet housing in the Netherlands is of high quality and significantly cheaper relative to incomes than in England. Local governments in the Netherlands (as in Germany) have an obligation to provide sufficient land for development.

¹¹ Barker, 2004, 2006; Allmendinger *et al.* (2005); Bramley and Leishman (2005); Hilber and Vermeulen (2010); Caldera and Johansson, 2013.

¹² The founding principles of the UK planning system were not designed to accommodate growth where it flourishes, but to attempt to direct/manage growth in predetermined ways (Hall and Tewdwr-Jones, 2011). It was more about managing the market in terms of the location of new building, rather than following it. The origins of such principles date back to the 1940s and 50s and are intimately related to the influence of three groups in shaping the UK planning system. Town planners and rural conservationists vented their concerns about the uncontrolled nature of urban sprawl. Planners argued that it was harming townspeople, increasing congestion and journeys to work. Conservationists worried that development was using up precious rural land, causing a major loss of

recently, the independent review of UK housing supply commissioned by the Labour Government in 2003 concluded that ‘the underlying constraint on housing is the supply of land’ (Barker, 2003, para. 10, p. 10).

In explaining what drives this constraint, the Barker Review drew attention to the planning system and its influence over the amount of land which is made available and the delivery of necessary infrastructure; the increasingly complex nature of sites (especially brownfield), where significant remediation might be required; the complexities of land ownership and difficulties in site assembly where ownership is fragmented; weak local incentives to develop land; and the politically contentious nature of land use at local level (local communities often worry about the possible loss of open space, the changing nature of their town or village, potential impact of development on property values, and increased pressure on infrastructure and local services). The Review also noted that, with limited land supply, competition in the house building industry tends to focus on land acquisition rather than on satisfying consumers. Its profitability depends on obtaining valuable land rather than building high-quality homes.

Despite a preponderance of evidence indicating that supply constraints play an important role in the rise of real house prices in England, its relevance remains a hotly-contested proposition in the public debate. There is a wide range of alternative hypotheses.¹³ These include, among others, calling into question the thesis that there is a shortage of available developable land, arguing that there is enough brownfield land in our cities to meet demand; expressing concerns about possible distortions in the competitive behaviour of housing developers (fears of land banking practices); and positing that rapidly-increasing demand might, in and of itself, be a key source of rising house prices.¹⁴

home food production, especially costly in times of war. The two groups were joined in their advocacy of greater land-use regulation by representatives of the depressed industrial areas in northern England, south Wales and central Scotland, who proved to be decisive allies. A Royal Commission appointed to address these concerns took the view that: (i) market forces were pulling new industries towards big population centres, where a wide range of labour skills and specialised services were available; (ii) left unattended, this trend would leave large concentrations of people and capital stranded in the smaller towns. The Commission concluded that this demanded specific government remedies that allowed a more effective control of the physical growth of cities and conurbations. The creation of greenbelts, new towns, and the role of social housing in urban regeneration are all examples of these remedies.

¹³ See, for example, Overman, H., ‘Should we build on the Greenbelt?’ LSE British Politics and Policy blog, 2012 retrieved 16 October 2014 from <http://tinyurl.com/pok5g3d>.

¹⁴ Increases in real income combined with declining long-term real interest rates and easing in credit conditions (until the Great Recession) are likely to have played an important role in increasing demand.

Section Two: The political economy of housing in England – root causes

The prevailing message from the available empirical evidence is that restrictive planning approaches are putting pressure on the housing supply and, as a result, on house prices. It is, therefore, important to understand why this regime is sustained and what would be required to change it. This is the subject of this section.

New development may impose costs on local residents, some temporary (e.g. short-term disruption associated with the construction phase), some permanent (loss of amenities, congestion of local facilities and infrastructure) with negative knock-on impacts on property values.¹⁵ If these costs materialise,¹⁶ they tend to be localised and of a significant magnitude for those who bear them – typically local residents (especially owner-occupiers) who might feel that they would lose out from development, and who are easily mobilised and politically empowered to block development. The gains from new development are usually dispersed, small, and uncertain from an individual perspective – mostly would-be house-buyers, many of whom are not yet local voters, as well as renters who tend to be a minority alongside owner-occupiers.

These asymmetries have important consequences. First, local support for development is likely to be sensitive to the costs that it imposes on local communities, especially when there is no compensating mechanism in place. Second, planning decisions made exclusively at local level may fail to allow for the full range of interests affected by development,¹⁷ and increase the risk of property rights re-allocation to existing homeowners.¹⁸ Third, local planning controls may have impacts on the demand for land and housing in other (usually neighbouring) areas, leading local planning authorities to engage in non-co-operative, strategic interactions to the detriment of regional and national prosperity (Brueckner, 1995; Helsley and Strange, 1995).

¹⁵ E.g. see Wiley (2009) for a study of the effects of infill development in residential neighbourhoods in Montgomery County, Maryland, on the prices of surrounding houses.

¹⁶ Depends on the extent to which disruption associated with the construction phase is minimised and made insignificant, as well as on there being investment in new infrastructure (e.g. roads, hospitals, schools) to avoid congestion and/or service quality deterioration.

¹⁷ There is a well-established body of theory behind this hypothesis. Most notably, Fischel (2001) argued that before WWII, in western countries, a large proportion of households lived and worked in the same city, which meant they had a stake in both the price of their home and the success of their employer. Elected politicians thus faced incentives to balance the interests of homeowners as well as of developers. In the 1950s, the development of commuter suburbs and footloose industries supported by widespread adoption of the automobile, allowed individuals to more easily live and work in different cities, and changed their voting preferences. Since local voting rights were often based on place of residence, voters' interests in the success of commerce and industry in their own community waned and protection of housing values became the primary focus of local constituencies. Residents began to fight new developments that potentially reduced home values, such as apartment complexes, noxious industry, and traffic-inducing commercial strips.

¹⁸ See Glaeser *et al.* (2005) for a discussion of these issues in the context of home building in New York. For a discussion of the redistributive effects of changes in the fundamental value of houses see Buiter (2010).

These problems are exacerbated by three important features of the governance of housing supply in England. First, according to the English planning system, any change of land use, legally defined as ‘development’,¹⁹ is subject to ‘development control’ and requires individual planning permission. This stands in stark contrast to the planning principles of some other countries such as the Netherlands, Germany and the US where developers have the legal right to put their plans in practice with only administrative approval, and without the need to seek ‘development permission’, as long as these plans conform to the requirements set down by planning regulations for the particular site.

The ‘development control’ approach of the English planning system has been found to promote uncertainty and delays, raising the expected returns that developers require for a project to be viable, and rendering the supply of housing less ‘price elastic’ (Mayo and Sheppard, 2001; Ball and Allmendinger, 2008; Mayer and Somerville, 2000).²⁰ Furthermore, it risks amplifying distortions in political representation at local level, by multiplying the number of local planning controls and giving disproportionate opportunity for small groups to block development (e.g. Pendall, 1999).

Second, England has been an outlier in having weak regional layers of planning governance.²¹ This promotes political fragmentation, which has been found to have important impacts on several dimensions of urban development, including density, the spatial extent of urbanised land area, and property values.²² Case study evidence suggests that interests represented at local level (parish councils in particular) are likely to be skewed towards those of property owners and older residents (Gallent and Robinson, 2012; Gallent et al., 2013).²³ Tetlow King and Morton (2012) estimated that since the abolition of ‘regional spatial strategies’ in

¹⁹ E.g. changing from agricultural to housing or housing to office use; significant increases in a building’s size; changing the use of a shop from selling one product/service to selling another.

²⁰ Research into 64 individual case studies of major developments, revealed that over half encountered substantial problems such as significant blockages and delays during the processing of their planning applications (Killian and Pretty, 2008). A review of the case history of 100 major residential applications (i.e. developments of more than 10 homes) approved in 2006-07 by 11 authorities found that the average time taken for the whole process, from pre-application discussion to the start of construction, was almost 98 weeks on average (NAO, 2008).

²¹ It is common for countries to have three layers of governance around land-use planning: national, regional, and local. When the UK planning system was designed, it was widely accepted that the right unit for spatial planning was the urban region. The 1947 Act gave local planning powers to LAs, but it provided for co-ordination by requiring that plans be submitted to the minister for approval. To inform these decisions, the Ministry of Town and Country Planning had strong regional offices in each of the main provincial cities. But during the 1950s these offices were closed down for reasons of economy, and at this point the idea of co-ordinating the various local plans seems to have been more or less abandoned.

²² Carruthers, 2002, 2003; Carruthers and Ulfarsson, 2002; Fulton et al. 2001; Glaeser et al. 2001; Searl and Filion (2011).

²³ This evidence casts serious doubts on the reformist power of neighbourhood planning (currently a key part of the localisation of planning in England). A vibrant local democracy that ensures that a broad range of interests and opinions participate in the planning process seems to be critical to the success of neighbourhood planning. These case studies fail to lend to support to the notion that such features are spread across English local governance structures.

2010, there has been a reduction of about 8% of land previously allocated for housing with the largest reductions occurring in the highest-demand regions.

Third, England has a highly-centralised fiscal system which offers few explicit incentives to local authorities (LAs) to facilitate urban development. LAs have statutory obligations to provide services for new residents, but receive little direct return from them to their tax revenues. Around 23% of budgeted revenue expenditure of English LAs in 2013-14 is estimated to be funded through council tax.²⁴ Evidence from other countries (e.g. Bassett and Malpass, 2013; Monk *et al.* 2013)²⁵ suggests that this plays an important role in shaping the willingness of local communities to accommodate development.²⁶

A snapshot of the political economy of housing in England would not be complete without a discussion of the long-term rise of homeownership and the way the English public have come to view housing property. Homeownership was on the rise for most of the twentieth century, especially from 1953 onwards. It has been the dominant form of tenure since the early 1970s.²⁷ A succession of governments encouraged and protected homeownership, which was seen as core to the interests and aspirations of the general public. A wide range of policy instruments were used to help people buy a home, but most of these focused on increasing affordability through favourable tax treatment of homeownership and improving access to credit, rather than increasing housing supply.

Some of the most notable initiatives include mortgage tax relief (which has since been abolished); capital gains tax relief; high loan-to-value ratios; no imputed rental incomes; a regressive local property (council) tax; and the 'Right to Buy' scheme that helped tenants buy their local authority home at a discount. Recent similar initiatives include removing stamp duty for first-time buyers, and the 'First Buy' and 'Help to Buy' schemes.

From the late 70s onward, the rise in homeownership met an increasingly unresponsive housing supply. Fiscal difficulties in the early 1980s and changes in political ideology regarding social housing undermined the post-war intention to address the bulk of housing needs with public sector-led urban regeneration

²⁴ See Young, M., Local Authority Revenue, Expenditure and Financing: 2013-14 Budget, England, DCLG, July 2013.

²⁵ E.g. Germany, Switzerland and (parts of) Canada are examples of countries that raise a substantial amount of income from local property taxes.

²⁶ E.g. Burge and Ihlanfeldt (2006) investigate the effect of impact fees (to finance public infrastructure) on the construction of new homes, drawing on data from Florida. They found that impact fees earmarked for public services other than water and sewer system improvements increased the construction of small homes within inner suburban areas and of medium and large homes within all suburban areas.

²⁷ Data for England and Wales indicates that by 1971 there was an equal proportion of households owning and renting. Homeownership continued to increase, reaching a peak of 69% in 2001 and then declining slightly in the following decade. (See ONS, 'A Century of Home Ownership and Renting in England and Wales').

programmes and by constructing new and expanded towns.²⁸ At the same time, lack of effective regional planning coordination left local planning authorities to pursue mostly defensive, negative planning policies.

Property prices soared in England between 1982 and 1989 – approximately 80% growth in real terms.²⁹ They fell sharply but briefly from 1989 to the mid-1990s (about 40% in real terms), and then increased again dramatically till the great recession in 2008 (about 150% in real terms). With soaring house prices came large increases in wealth for a vast number of homeowners. This experience is likely to have contributed to disseminating the idea that homeownership is a ticket for individual prosperity and that ‘getting on the housing ladder’ is of utmost importance.

Data from the 2010 British Social Attitudes Survey (BSAS) on public perceptions about homeownership suggested that the vast majority of the public would prefer to buy a house then to rent. The most-commonly cited advantage of ownership is that it represents a good investment.³⁰ With respect to problems of affordability and how government might try to address them, most of the public seemed to think that government should give financial assistance to first-time buyers and increase access to mortgages.³¹ In the 2010 BSAS, overall those who opposed building more homes in their local areas seemed to outnumber those who supported it.³²

²⁸ It was not, however, the first time that this intention met some obstacles. It had been grounded in the premise that the pace of population growth and of economic development was to be slow. In practice, the second half of the twentieth century brought rapid demographic and economic change to the UK in an unprecedented scale. Fast population growth, increasing levels of mobility, and rising prosperity combined to undermine the theoretical foundations of the post-war land use planning regime.

²⁹ Based on data underlying Figure 2.

³⁰ 86% said that if they had a free choice they would buy, while only 14% said they would choose to rent. This figure has changed very little over the last 25 years; in 1996, 85% said they would choose to buy and 15% say they would choose to rent. When asked about the main advantage of owning a home, the most common responses were that it is a good investment (26%); it is more secure than renting (23%); and that it gives you the freedom to do what you want with it (21%). A further 14% said the main advantage is that it works out less expensive than renting, while 12% felt that having something to leave your family is the most important advantage of owning a home (DCLG, 2011).

³¹ When asked about ways government could make homes more affordable in the 2010 BSAS, the most common response was to give financial assistance to first-time buyers, with 29% choosing this option. 23% of respondents said the government should increase access to mortgages, while 19% said the government should give more money to housing associations and LAs to build social homes for those on low incomes. Only 5% said government should allow developers to build more homes. When asked about their first priority for extra government spending, 5% of respondents chose housing. This was the fourth most popular area after health (41%), education (33%) and help for industry (6%), and was closely followed by police and prisons (5%) and defence (4%).

³² 29% supported more homes being built in the local area while 46% opposed and 23% neither supported nor opposed. Support was particularly high among those renting from a local authority (46%) or from a housing association (47%), followed by private renters (33%), and particularly low for homeowners (just 23% support). Interestingly, the proportion of private renters that opposed development (36%) was greater than the proportion that supported it (33%) (See DCLG *Public attitudes to housing in England: Report based on the results from the British Social Attitudes Survey*, 2011).

Another result associated with the rise of homeownership and strong increases in real house prices in parts of the country, is the creation of very strong ties between the housing market and the macro economy. In many cases, the health of the housing market has become critical to individuals' long-term financial security, which strengthens the links between property prices, access to credit, and consumption.

Furthermore, the performance of the housing market has also become crucial to the health of the UK financial system, since about 80% of the lending of UK banks supports household mortgages or commercial property. This means that doing anything bold in the short term to address supply rigidities and tackle problems of affordability would probably not only prove unpopular with large segments of the public but also extremely destabilising for the macro-economy.

The weight of homeowners in the electorate, the shape of public preferences about homeownership and housing policy, and the close ties with the macro-economy, help to explain why successive governments have exhibited an ambivalent approach to easing supply restrictions and putting a curb on rising house prices. It is an ambivalence that cuts through the (conflicting) views and interests of the electorate itself,³³ and that is compounded by the potential effects on the performance of the economy as a whole.

Ambivalence in housing policy is further aggravated by the clash between pressures to make planning decisions accountable to local communities on the one hand, and ensuring a balanced representation of interests in planning decisions on the other. As was mentioned above, it cannot be simply assumed that local planning alone will ensure that all parties affected by development will be heard, and that their interests will be taken into consideration. If anything, the balance of existing evidence points in the opposite direction, as we shall see in the next sections. City-

³³ In his 2014 Mansion House Speech, the Chancellor of the Exchequer, George Osborne, said: 'The challenge is that we want several things which don't sit comfortably together. For most people, their home is the biggest investment of their lifetime. And, of course, they want that asset to increase in value over time. But a home is also a place to live and build our lives – and we want all families to be able to afford security, comfort and peace of mind. That means homes have to be affordable – whether you're renting or buying. The only way that can be achieved over the long term is by building more, so supply better matches demand. But we are a small and crowded island, keen to protect our green spaces and ready to object to new development. So the British people want our homes to go up in value, but also remain affordable; and we want more homes built, just not next to us. You can see why no one has managed yet to solve the problems of Britain's housing market.' (Extract from Osborne, G., 'Mansion House speech in full', *The Telegraph*, 12 June 2014.) In a similar vein, the Lyons Review of Housing noted that 'successive Governments have faced what economists call an insider problem: how to increase housing supply and bear down on prices without damaging the economic interests of existing householders and landowners? Older owner occupiers are more likely to vote than those in socially or privately rented housing meaning they have often had a louder voice. When combined with public resistance to housing development resulting from concerns about impact on infrastructure, environment and communities, making the case for new homes has been problematic' (Lyons, 2014, p.15).

wide/regional/national planning co-ordination often plays an important role.³⁴ Yet, successive governments have struggled to find a sensible balance between regional/national planning co-ordination and local democratic legitimacy.

The planning reforms adopted by the current Coalition are a case in point. When it came into power in 2010 it took a number of steps to implement its 'localism' agenda, including returning power to local government to determine housing need and abolishing centrally-determined 'targets'; dismantling the regional planning apparatus; and strengthening community control through 'neighbourhood development plans' and 'neighbourhood development orders'.

A couple of years later, however, the Government introduced changes to planning rules pulling in the opposite direction. The National Planning Policy Framework (NPPF), published in March 2012, included a highly controversial 'presumption in favour of sustainable development', calling on authorities to adopt the default position of granting planning permission unless there is clear cause not to. It signalled the return of an element of strategic leadership above the local level (Gallent *et al.* 2013).

In a similar vein, in his 2014 Mansion House speech, the Chancellor of the Exchequer spoke of an 'urban planning revolution' which would see councils forced to pre-approve brownfield sites for housing developments through 'local development orders'. LAs would be able to specify the type of housing, but the decision to have additional housing would be taken out of their hands. The Chancellor also announced that the Government would consult on new measures to enforce this approach, including allowing developers to apply directly to Whitehall if they feel councils have not done enough to remove planning obstacles on brownfield sites.

There are, however, signs that the political economy landscape we have just described might be changing. First, we seem to be witnessing a structural shift in homeownership. It has been on a declining trend for about two decades (Figure 3), particularly strikingly among those born from the mid-1970s onwards, which is unlikely to simply reflect changes in the timing of movements into homeownership due to, for example, delayed family formation. Instead, the data suggests that ease of owning a home is changing, which is likely to be associated with the rapid rise in real house prices since the mid-1990s, combined with the lack of income growth since the early-2000s (Belfield *et al.*, 2014).

³⁴ In the international case studies reviewed in this paper (Annexe 2), attempts to make housing supply more responsive to demand and to create more sustainable development patterns (namely curbing 'urban sprawl') involved some degree of rebalancing of planning powers from the local to the state level. The triggers for reform included competitive pressures between cities striving to attract investment; increasing influence of the development industry on state governments; and rising public concern regarding the economic and environmental sustainability of urban sprawl.

Second, voters' preferences also seem to be changing. Survey data indicates that opposition to new homes fell substantially between 2010 and 2013, with 31% of respondents in the British Social Attitude Survey saying they would oppose new homes being built in their local area in 2013, compared to 46% in 2010. The proportion that supported new housebuilding increased from 28% in 2010 to 47% in 2013. The difference between those saying they are supportive and those who are opposed shifted from -18% in 2010 to +16% – i.e. there is now a greater number of respondents who support more homes. Opposition fell across all age groups (most sharply among respondents aged 65 and over), tenure, income groups, and among respondents living in different types of areas.

Third, business groups are increasingly focusing on problems of housing affordability as a threat to business competitiveness, by putting upward pressure on wages, and thus making it difficult to recruit and retain staff. The failure of successive governments to tackle problems of housing supply is becoming widely perceived as a growth issue, and is rising rapidly up the agenda of businesses. In a report published in September 2014, the Confederation of British Industry (CBI) argued that housing 'is not just a social priority – it is a key business issue; [the] high cost of moving home, and lack of decent and affordable housing, are barriers to attracting and retaining employees'.³⁵

The risk posed by possible future volatility in the housing market has also triggered fears that it might destabilise the current economic recovery. The Governor of the Bank of England, Mark Carney, added his voice to those who have singled out the housing market as one of the biggest risks to financial stability and therefore to growth.

This changing landscape has not gone unnoticed in Westminster. At Labour's Annual Conference in September 2013, Ed Miliband announced plans for any future Labour government to increase the supply of new homes in England above 200,000 a year by the end of the next parliament. A commission chaired by Sir Michael Lyons has been asked to draw up a road map setting out the changes to housing and planning policies required to deliver these new homes.³⁶

At the 2014 conservative party conference, the Prime Minister set out plans to deliver 100,000 new homes over the lifetime of the next parliament to young first-time buyers at discounted prices. The pledge includes releasing commercial 'brownfield' land for house building and the introduction of a range of tax exemptions targeted at the new homes.

³⁵ Confederation of British Industry (CBI), *Housing Britain: Building new homes for growth*

³⁶ The Lyons Housing Review was published in October 2014 and concluded that "artificial scarcity of land" for housing has created distortion in the land market. It issued a variety of recommendations designed to strengthen the responsibility of councils to identify sufficient land for new homes in local plans (including interventions of the planning inspectorate if they failed to do so), while ensuring their ability to deliver these plans was also improved (e.g. through increased devolution of funding).

Section Three: Opposition to development – empirical evidence

The previous section reviewed features of the governance of housing supply in England that might be connected to planning restrictions. To develop a better understanding of these potential connections, it is helpful to draw on a strand of empirical studies that have attempted to shed light on what drives planning restrictions. After briefly surveying the results from this literature, this section presents new empirical results from a cross-sectional analysis of the growth in the housing stock of 349 English local planning authorities between 2001 and 2011.

Previous studies have noted that residents may object to proposed housing developments for many reasons: the particular design of a structure; effects on neighbourhood character; added traffic; the possibility of ‘undesirable’ people moving in to the neighbourhood; effects on public services; or loss of open space. Most of these motives are linked to concerns about local property values (Haselhoff and Ong, 2007).

Yet, very few empirical studies focus on individual motivations (i.e. the micro foundations) underpinning opposition to housing development. The classic reference is Pendall (1999). It examined 182 development projects in the San Francisco Bay Area in the 1980s and tried to identify aspects of proposals, sites, surroundings, or processes that tended to be associated with protest. He found that affordable housing and multi-family developments were most likely to cause opposition, but the explanatory power of his models was weak. There are also a small number of case studies on the English countryside, which offer anecdotal evidence that planning processes are being subverted in ways that favour the exclusionary preferences of certain groups (e.g. Powe and Hart, 2011; Sturzaker, 2010).³⁷

There is, however, a flourishing theoretical literature focusing on the drivers of planning restrictions which has been expanding to include empirical tests. These tests are almost exclusively focused on North American cities and the results are still widely contested. Some of the variables that have been studied include population growth/density,³⁸ income,³⁹ local political ideology,⁴⁰ and homeownership rate.⁴¹

Studies of homeowners’ support/opposition to projects or policy initiatives that are perceived to have an impact on property values have tended to find support for

³⁷ ‘As I write this in the (real) English countryside, I am surrounded by invitations to protest against the planned development of new houses on an unremarkable field adjoining a local village. To refuse to support the petition from indignant residents would appear unneighbourly, or lead to a fruitless argument I would prefer to avoid; and I too would prefer that the houses were built somewhere else. So I shall sign, and so will many others, and a few irrationally angry people will probably get their way.’ John Kay, writing in the Financial Times on 11 June 2014.

³⁸ E.g. Bates and Santerre, 1994; Evenson and Wheaton, 2003; and Glaeser and Ward, 2009.

³⁹ E.g. Pogodzinski and Sass, 1994; Evenson and Wheaton 2003; and McDonald and McMillen, 2004.

⁴⁰ E.g. Kahn, 2011.

⁴¹ E.g. Dubin *et al.*, 1992; Clingermayer, 1993; Pogodzinski and Sass, 1994; Glaeser and Ward, 2009; Brueckner, 1998; and Gordon, 2009.

the so-called ‘homevoter hypothesis’ (Fishel, 2001) – i.e. the idea that local planning decisions are driven by the desire of homeowners to maximise the value of their houses.⁴² The influence of pressure groups other than resident homeowners has only been tested in a handful of cases.⁴³ Tests of strategic interactions/non-co-operative behaviour between local planning units are even scarcer.⁴⁴

As far as we are aware, similar research focusing on the UK/England is confined to the small number of case studies mentioned above and ongoing research by Hilber *et al.* (2014). This section aims to help fill this gap. We investigate the drivers of English LAs’ willingness to expand their residential dwelling stock. We test the empirical association between the growth of local dwelling stocks (our dependent variable) and a range of variables, including: the proportion of local households who are owner-occupiers; the proportion of local developable land (i.e. land that is not already built nor subject to administrative or natural restrictions – e.g. greenbelts and national parks); local electoral results; and a series of economic, demographic, and regional controls.

The empirical tests are based on ordinary least squares (OLS) regressions using a cross-section of up to 349 English local planning authorities.⁴⁵ The explanatory variables are measured in or around 2001. The growth of LAs’ dwelling stock (our dependent variable) covers the 2001-2011 period. Variable definitions, descriptive statistics, and details of their spatial distribution are presented in the Annexe 1.

Before we discuss our results, our choice of dependent variable bears some further elaboration. We have opted for the growth of dwelling stock in LAs on the grounds that it captures the willingness of LAs to allow housing stock to expand (in relative terms), and therefore, is a good indicator of LA restrictiveness.

One obvious alternative would be to use the rejection/refusal rate of planning applications at LA level, but we found this suffered from two important limitations. First, the planning application data available does not contain information on the exact number of new dwellings that were submitted to a LA, only on the number of applications that concerned 10 or more dwellings (so-called ‘major residential

⁴² E.g. Brunner *et al.*, 2001; Brunner and Sonstelie, 2003; Hilber and Mayer, 2009; Dehring *et al.*, 2008; and Ahlfeldt and Maennig, 2012.

⁴³ E.g. Lubell *et al.*, 2005; Glaeser and Ward, 2009; Solé-Ollé and Viladecans-Marsal, 2012; Hilber and Robert-Nicoud, 2013; Schone *et al.* 2013.

⁴⁴ E.g. Brueckner, 1998; Schone *et al.* 2013.

⁴⁵ Clarification of our unit of analysis is in order. We use local planning authorities as our unit of analysis as this is where town planning powers reside. Local planning authorities’ boundaries coincide with those of metropolitan boroughs, London boroughs, unitary authorities and non-metropolitan districts which have jurisdiction over housing applications within their boundaries. Non-metropolitan districts were part of a two-tier system with county councils till the 1990s but now wholly consist of authorities with district status or have been converted to unitary authorities through local government restructuring. The powers of county councils have been commensurately reduced, being limited to aspects such as strategic planning, social services, education, and fire services.

planning applications'). Second, there are a significant number of LAs where both refusal rates and dwelling stock growth are relatively high (Figure 4).

This stresses the point that it is not enough to look at refusal rates alone if one is interested in measuring LA restrictiveness to define readiness to increase the local housing stock. For a given number of planning applications, refusal rates are simply levers that LAs can pull to determine the amount of development they wish to accept.

Our main results are presented in Table 1 below. They suggest that there is a negative, statistically significant association between the proportion of owner-occupiers among local households and the growth of LAs dwelling stock. The magnitude of the effect remains stable across a range of specifications and the variable is always significant at the 1% level. In (2), our benchmark model with region fixed effects, a 10 percentage point higher proportion of homeowners is associated with a 1.2 percentage point lower dwelling stock growth between 2001 and 2011 (average growth was 8.75%). This is about a third of a standard deviation in dwelling stock growth, which is a non-trivial effect.

Table 1: OLS regression results

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Owner-Occupier households	-11.59*** (1.694)	-12.16*** (1.954)	-14.08*** (2.224)	-14.53*** (2.293)	-11.46*** (2.143)	-14.01*** (2.028)	-11.85*** (2.042)
Developable land	4.614*** (0.573)	4.772*** (0.609)	4.658*** (0.614)	4.740*** (0.623)	4.599*** (0.635)	4.576*** (0.623)	4.659*** (0.624)
Planning applications relative to dwelling stock	1.193*** (0.102)	1.104*** (0.107)	1.107*** (0.106)	1.094*** (0.108)	1.114*** (0.111)	1.025*** (0.111)	1.075*** (0.109)
Structurally not controlled LAs	0.963** (0.448)	0.951** (0.439)	1.029** (0.440)	1.037** (0.440)	0.874* (0.470)	0.828* (0.444)	0.891** (0.449)
Household density			-0.0382 (0.0233)	-0.0387* (0.0233)			
Median Income (log)				1.144 (1.424)			
Labour controlled LAs					0.146 (0.491)		
Conservative controlled LAs					-0.321 (0.422)		
Region dummies	No	Yes	Yes	Yes	Yes	Yes	Yes

Constant	10.16***	11.92***	13.85***	3.133	11.57***	13.84***	11.76***
	(1.230)	(1.568)	(1.927)	(13.47)	(1.699)	(1.653)	(1.642)
Observations	349	349	348	348	331	319	333
R-squared	0.434	0.485	0.491	0.492	0.473	0.465	0.472
Standard errors in parentheses. ***, **, * denote p values less than .01, .05 and .1 respectively.							

NB: All regressions run using linear OLS with dwelling stock growth as the dependent variable. Our benchmark results in (1) are robust to the inclusion of region fixed effects in (2), density in (3) and income in (4). In (5) we include categorical variables for districts that have been controlled by one of the major parties for 8 or more years between 1998 and 2008. In (6) we drop districts with very low growth and low refusal rates. In (7) we drop districts with high growth and low income. The results stay broadly unchanged.

The estimate of the coefficient for our indicator of developable land is statistically significant and positive. A 10 percentage point higher proportion of developable land is associated with approximately 0.47 percentage points higher dwelling stock growth. As we move from low to high shares of developable land, we are usually moving from LAs characterised by dense urban areas to LAs composed of rural villages and/or small cities surrounded by countryside. There are various possible interpretations for this association. For example, LAs where land is relatively abundant (i.e. where there are greater opportunities for greenfield development) could face less community opposition than LAs that rely more on infill development. The correlation could be reflecting the fact that it is technically more challenging (and, thus, more expensive) to build in densely populated areas. It could also be capturing the interests/lobbying of owners of undeveloped land (e.g. Hilber and Robert-Nicoud, 2013). Our model does not shed light on the merits of these different interpretations, so we remain agnostic about the exact nature of this association, but decide to keep the variable in the model as a control.

We have also controlled for the degree of LA attractiveness measured by the number of planning applications received relative to the local housing stock. This variable is statistically significant and positive, with a unit increase associated with 1.1 percentage points higher growth. Again we can only speculate about the mechanisms underpinning this correlation. It could be that LAs receiving higher numbers of planning applications (relative to their dwelling stock) have options to grow in ways that other LAs do not, for example by tapping into a wider pool of high-quality planning applications. In contrast, one might expect property owners in more attractive LAs to have stronger incentives to oppose development, which would support a correlation in the opposite direction – that is, all else being constant, the growth of the local dwelling stock in more attractive LAs would tend to be smaller than in other areas. As in the previous case, we include the variable in the model as a control.

We also introduced a range of other controls in (3) and (4) (e.g. household density and income) which turned out not to be significant or only marginally so.

The results for our political variables suggest there might be a positive difference in dwelling stock growth between the group of LAs that have remained

mostly under no overall control by any one party between 1998 and 2008 vis-à-vis other LAs. All else constant, LAs in the former group are associated with approximately 1 percentage point higher growth. We also introduced dummies for LAs controlled by either of the two parties (5) and found that these do not seem to have a significant association with growth, suggesting that it is control that matters, not political complexion. We should note, however, that these are tentative results, which depend on the way political control is defined/measured.⁴⁶ Also, at this stage, we could only speculate as to the intuition behind this association.

We ran a series of robustness checks. We dropped from our sample (6) districts that had simultaneously low refusal rates and low dwelling stock growth, as these were likely to be relatively-depressed areas where dwelling growth was constrained by lack of planning applications. In those cases, our dependent variable is not a good indicator of LAs' willingness to expand.

In (7) we dropped districts with high growth rates and low income to test whether our results were being biased by growth being 'dumped' in low income areas. Both specifications left our major results unchanged. Additionally, we experimented with small changes to the definitions of our variables (e.g. the benchmark used for the number of years that LAs were uncontrolled required for them to be classified as such) and also used robust standard errors to correct for possible heteroskedasticity. The pattern of results stayed the same.

All in all, our results show a robust empirical association between homeownership and increases in housing supply. The nature of our analysis is such that does not enable us to establish a nexus of causality between the two. This is, however, to the best of our knowledge, the first time that such a correlation has been established with UK data.

The results also lend support to the thesis that the amount of developable land available at the local level plays a significant role in the way local planning authorities are able to accommodate demand for development. This, in turn, highlights the importance of current debates about the effects of greenbelts and the ability of existing cities to expand.⁴⁷ But a more sensible discussion of the impact of greenbelts, and of the trade-offs between greenfield development and environmental values, should be part of a wider debate about density.⁴⁸

⁴⁶ More details about this definition can be found in the Annexe 1.

⁴⁷ E.g. Rudlin, D., and Falk, N., *Uxcester Garden City, Wolfson Economics Prize 2014 – Second Stage Submission*.

⁴⁸ Not just density defined as number of dwellings per hectare, but also density as floor space per hectare, so that the height restrictions imposed by the planning system are taken into consideration. In this context, see Whitehead, C. *The Density Debate: A personal view*

Conclusion

Increases in real house prices in the UK over the past four decades have ranked among the highest of the developed world. Problems of housing affordability have become severe in some parts of England, especially among younger generations and individuals from deprived socio-economic backgrounds. The size of new houses has been decreasing and is smaller than in many other advanced economies. The number of houses built over the past few years fall well short of the level required just to keep the current prices stable.

The problem is intimately related to constraints in housing supply resulting from the idiosyncrasies of the governance of land in England. In particular, planning decisions made at local level combined with weak or absent city-wide/regional/national co-ordination do not always ensure that the full breadth of interests affected by development are taken into account in land-use decisions.

Empirical evidence reviewed in this paper, together with the results of our own model, suggest a real and significant risk that planning decisions reflect an unbalanced set of interests. The problem is likely to be aggravated by limited fiscal autonomy of LAs and a planning system based on 'development control'.

The difficulty of reforming the system is threefold. First, so far, there has been a lack of (enough) public support. Rising numbers of owner-occupiers (boosted by policy incentives) and increasing house prices from the late 70s onwards have shaped public perceptions about homeownership and development. Opposition to development has risen to prominence in many areas, and public support for government intervention has shifted to policies designed to help with mortgages and making access to credit easier. Second, as housing has increased its weight in the wealth of households⁴⁹ and in the health of the UK financial sector,⁵⁰ it has become inextricably intertwined with the macro-economy, thus undermining the case for fast, radical reform. Third, successive governments have struggled to find a sensible balance between regional/national planning co-ordination and local democratic legitimacy.

Difficulties in reforming the planning system are reflected in a series of recurrent swings between top-down interventions and institutional reforms designed to give local communities a greater say in planning decisions – often only scratching the surface of the governance of housing supply, and failing to elicit radical change.

⁴⁹ Average household wealth was split approximately 65% in housing and 35% in financial assets in 1995, whereas in 2005 this split shifted to 85% and 15%, respectively (Bastagli, 2013).

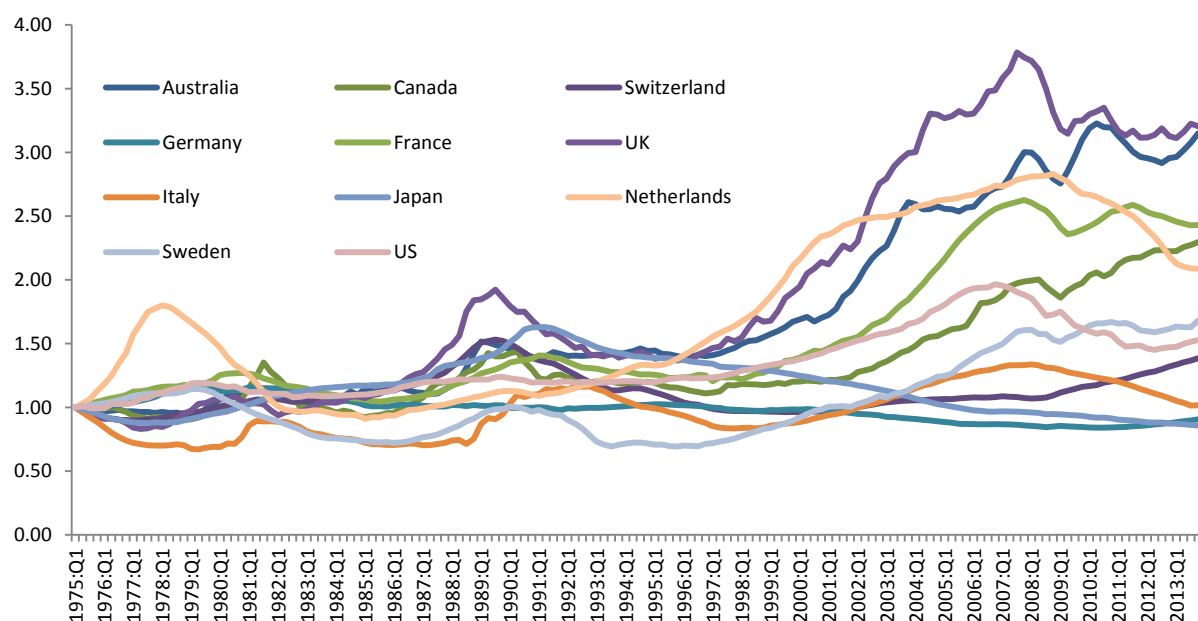
⁵⁰ In 2009, property-related lending accounted for 76% of total loans in the UK (Turner 2014). Perverse macro-economic effects of rising house prices have only recently started to be studied empirically. For example, Chakraborty *et al.* (2013) present empirical evidence supporting the hypothesis that when housing prices increase, banks on average reduce commercial lending and increase interest rates, leading related firms to cut back on investment.

They are also noticeable in the ambivalent approach that successive governments have adopted in relation to tensions between rising house prices and problems of housing affordability.

At the time of writing (Autumn 2014), hardly a day goes by without house prices making headlines. It remains to be seen, however, if problems of affordability will become severe enough to trigger a substantive shift in public perceptions and/or a rebalancing of the political influence of groups in different tenures that may prompt reform.

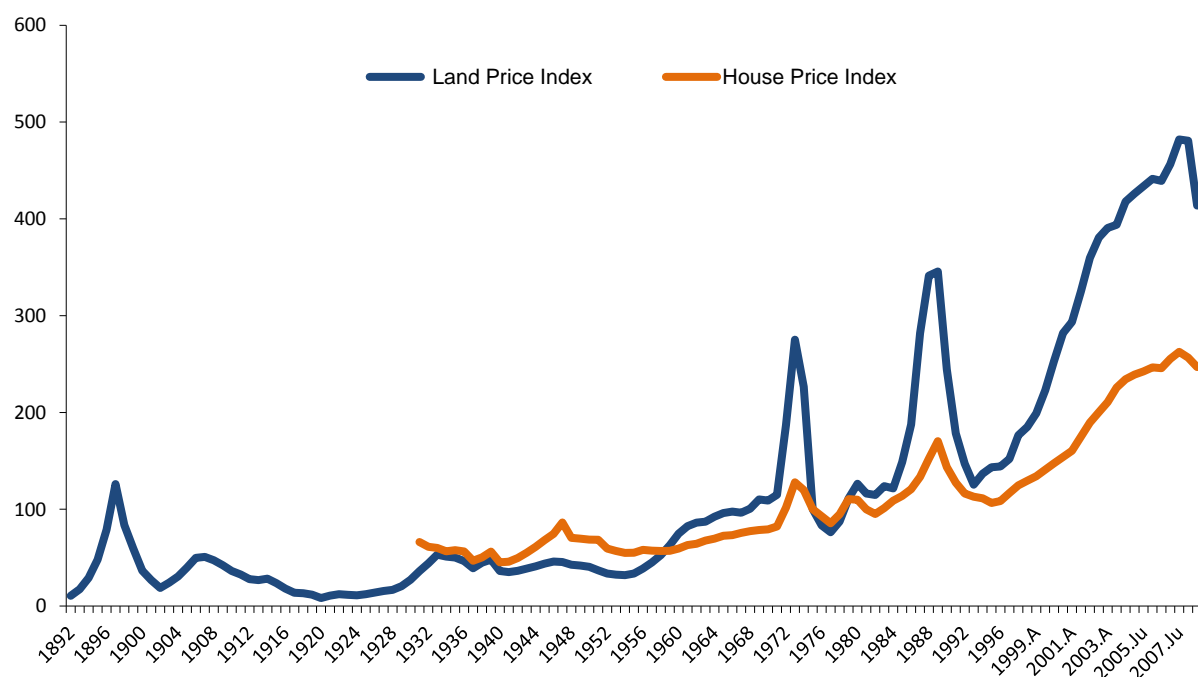
Annex 1

Figure 1: Real House Prices, International Comparison, 1975Q1-2013Q4, 1975Q1=100



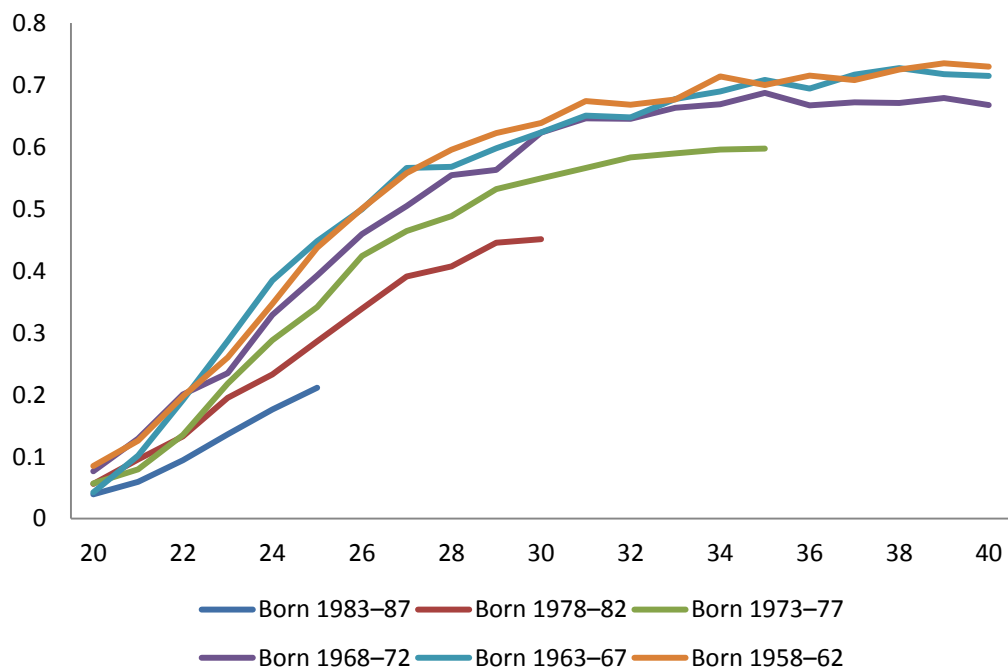
Source: International House Price Database, Federal Reserve Bank of Dallas

Figure 2: Real Land and House Prices Indices (1975=100), England and Wales



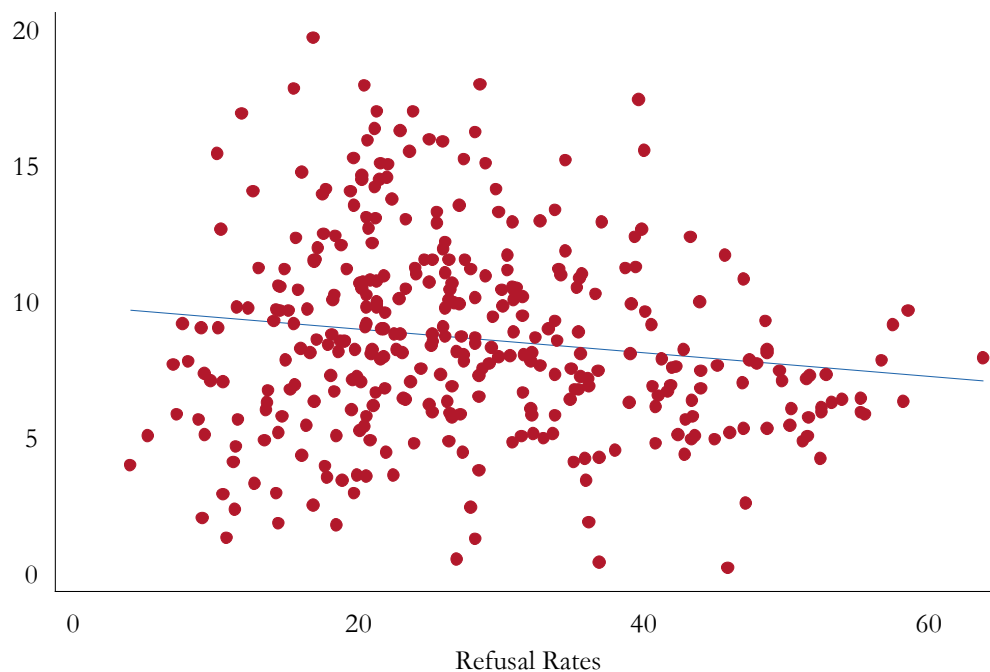
Source: Cheshire *et al.* (2014)

Figure 3: Homeownership rates by birth year and age



Source: Belfield et al. (2014) – Figure 3.1.3, using data from the Families Expenditure Survey and the Family Resources Survey for various years.

Figure 4: Dwelling stock growth vs refusal rates



Definitions and descriptive statistics

Dwelling stock growth

Dwelling stock by local authority for 2001 and 2011 was obtained from census data using Nomis. Census defines ‘dwelling’ as a single self-contained household space, so these statistics count only residential spaces.

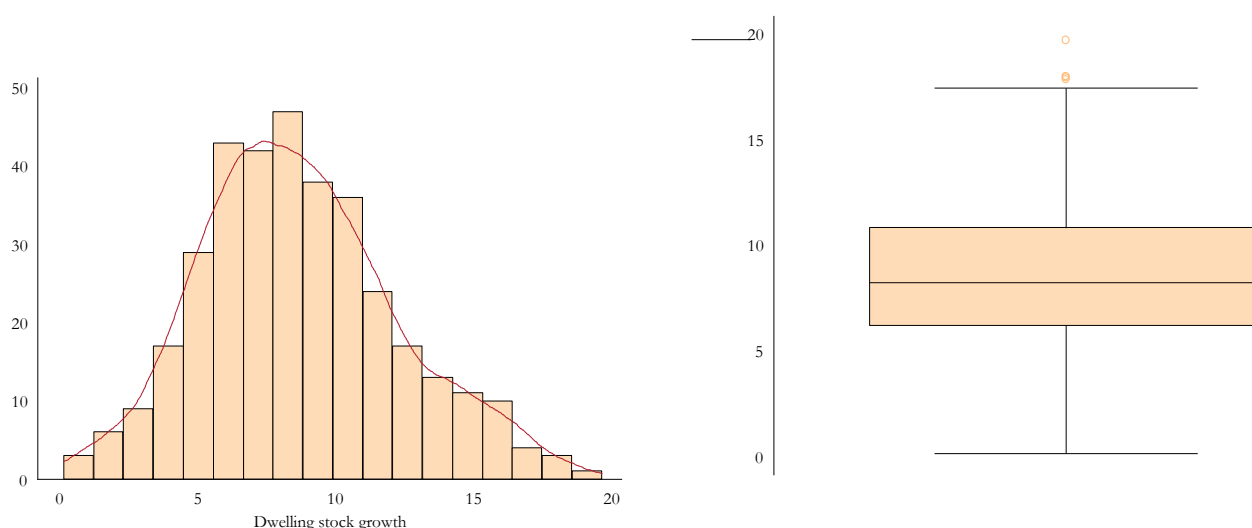
For the 37 districts that were merged into larger unitary authorities (UAs) in the 2009 local government restructuring, the annual series on [Dwelling Stock Estimates](#)⁵¹ was used to estimate share of dwelling growth in future UAs, that could be attributed to individual districts between 2001 and 2009. This was then used to impute the increase in dwelling stock between 2009 and 2011 for these 37 districts.

We ended up with 354 observations (including City of London and Isle of Scilly) and computed a growth variable (dwelling stock in 2011-dwelling stock in 2001/dwelling stock in 2001* 100). A similar variable was also created between the 2001 and 2008, but the model’s results stayed broadly unchanged.

Summary statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Dwelling stock growth	354	8.75	3.77	.16	31.34

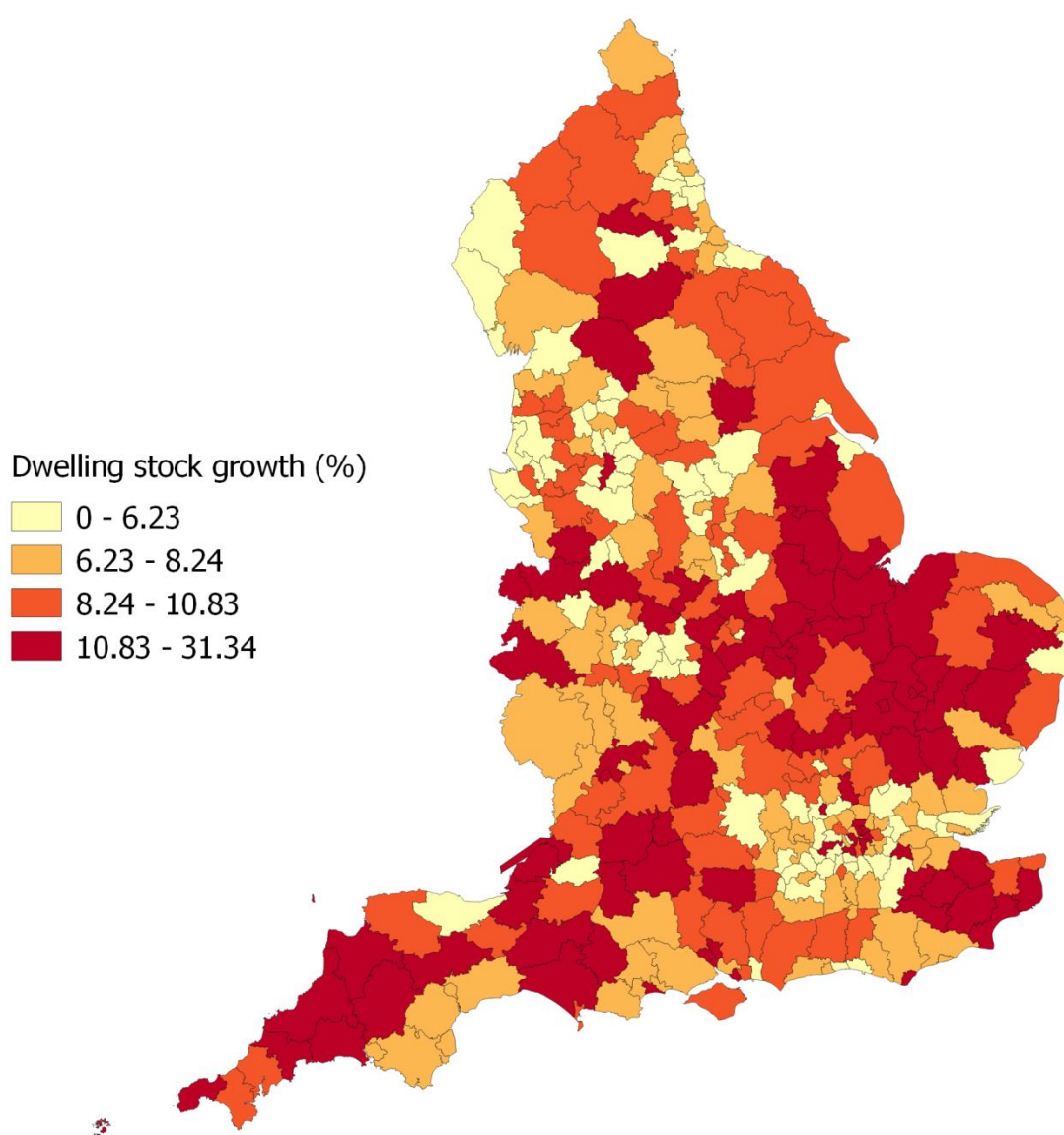
Figure5: Histogram and box plot



⁵¹ HM Government, *Live tables on dwelling stock (including vacants)*, GOV.UK website, 2014, Retrieved 16 October 2014 <https://www.gov.uk/government/statistical-data-sets/live-tables-on-dwelling-stock-including-vacants>

(NB: Tower Hamlets with a growth rate of 31.3% has been excluded from above graphs for presentation purposes)

Figure 6: Growth rates (quartiles)



Owner-occupier households

Proportion of households that are owner-occupiers/private renters/social renters/council renters:

These variables were created using 2001 Census Area Statistics data from the Nomis website based on Household Reference Person (HRP). By norm, the HRP is the oldest economically active adult in a household. The census collates HRP data for age categories up to 74 years. The owner-occupier households variable was then = (total number of owner-occupier households in district/total number of households in district). Population based estimates were also calculated side-by-side for robustness checks.

Summary statistics

<i>Variable</i>	<i>Obs</i>	<i>Mean</i>	<i>Std. Dev.</i>	<i>Min</i>	<i>Max</i>
Proportion of owner-occupier households	354	.72	.09	.29	.89

Figure 7: Histogram and box plot

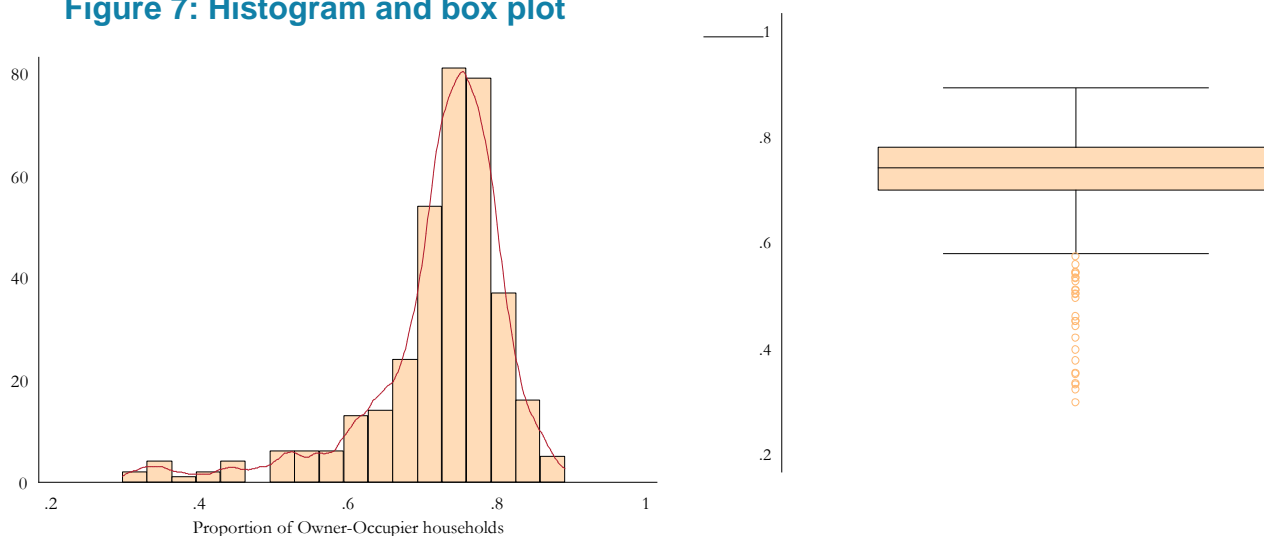
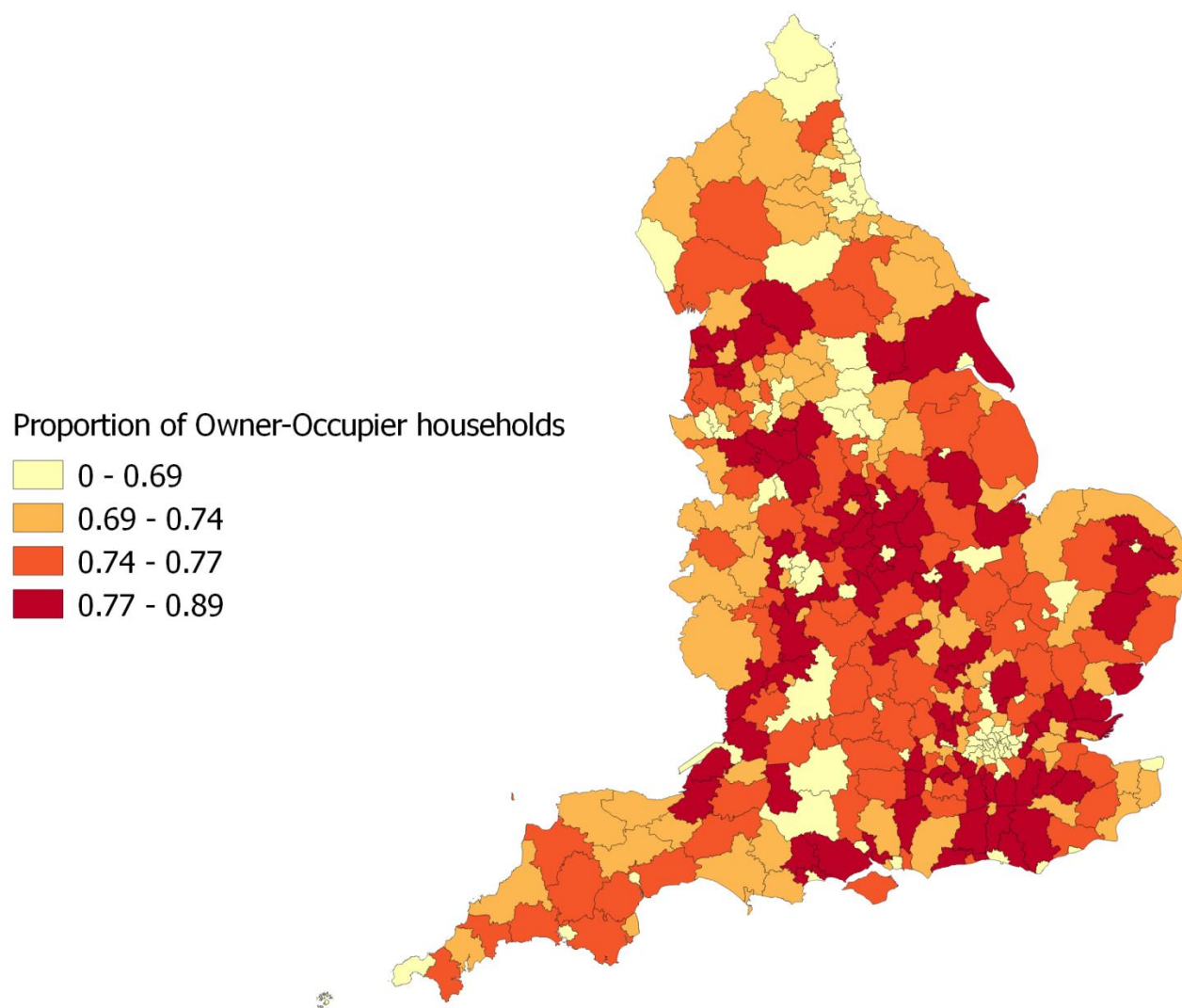


Figure 8: Owner-occupier proportions (quartiles)



Number of major planning applications relative to dwelling stock

Data on major residential planning applications (projects that involve building of 10 or more houses) was obtained from the Department of Communities and Local Government (DCLG). The total number of such applications made over the period 1998-2007 was used as a measure of attractiveness of a district. (2008 was left out due to data concerns i.e. significant number of missing values, while data past 2009 suffered due to the re-organisations).

This measure was divided by dwelling stock in 2001. For missing values of data in 2007, data was imputed by linear estimation using 2006 and 2008/09 data. As a robustness check, this variable was also created by weighting it by population instead of dwelling stock.

Summary statistics

<i>Variable</i>	<i>Obs</i>	<i>Mean</i>	<i>Std. Dev.</i>	<i>Min</i>	<i>Max</i>
Planning applications relative to dwelling stock	350	4.15	1.55	0	12.37

Figure 9: Histogram and box plot

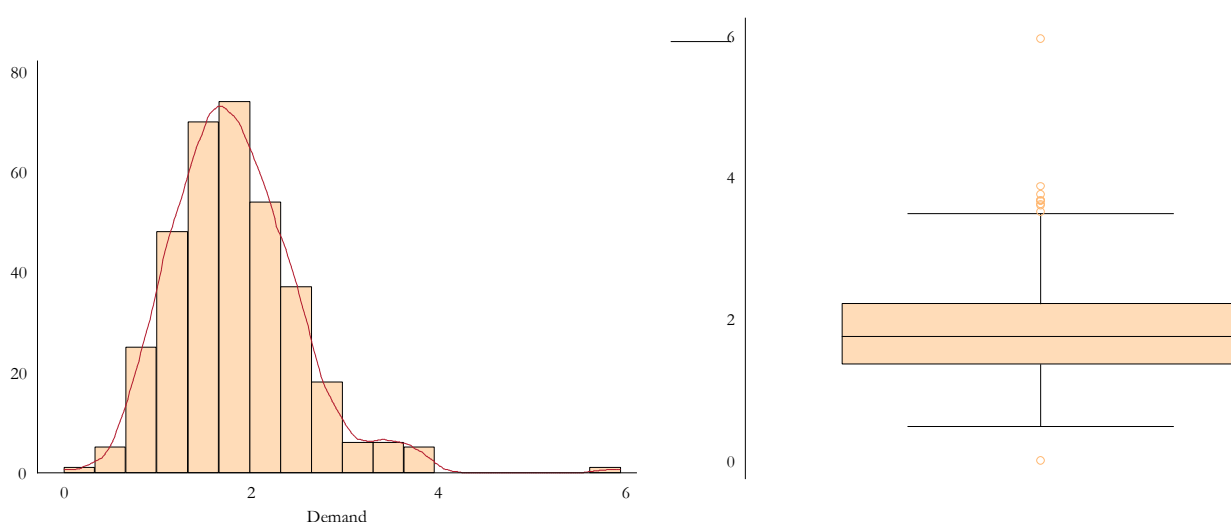
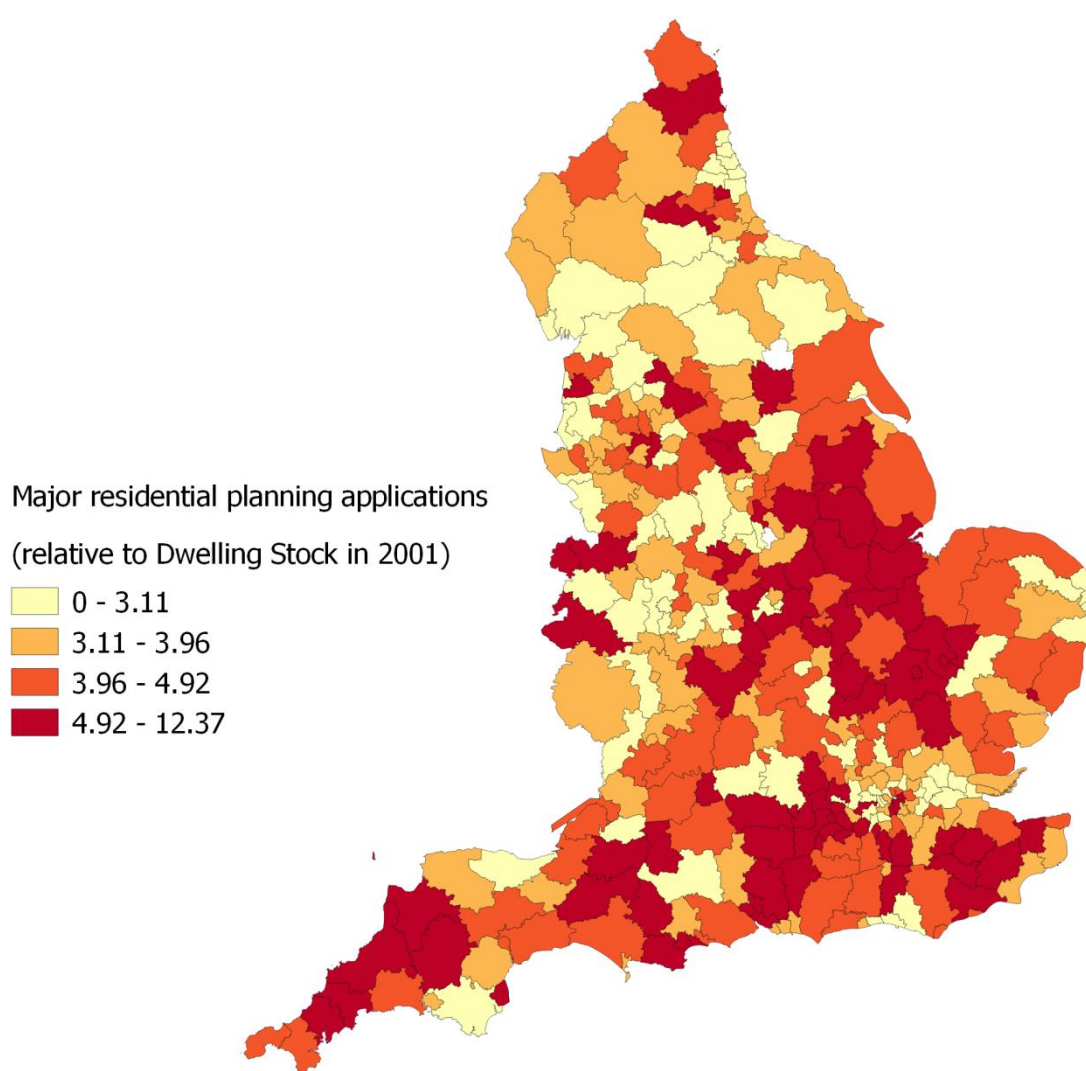


Figure 10: Planning applications relative to dwelling stock by district (quartiles)



(NB: Missing values for Nottingham, York, Isle of Wight and Isle of Scilly)

Developable land

Share of developable land: Using GIS software the following categories were subtracted from the total area of each district.

- Built-up land and areas subject to natural restrictions, using Land Cover Map 2000 from the Centre of Ecology and Hydrology
- Areas designated as ‘special conservation areas’, ‘special protection areas’, ‘sites of special scientific interest’, local and national nature reserves, Ramsar sites, and ‘areas of outstanding natural beauty’, using data from Natural England website
- Greenbelts and national parks, using Office of National Statistics (ONS) data.

Land that did not fall into any of these categories was classified as developable land for the purposes of our analysis.

Summary statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Developable land	354	.39	.28	.00	.94

Figure 11: Histogram of ‘developable land’ variable

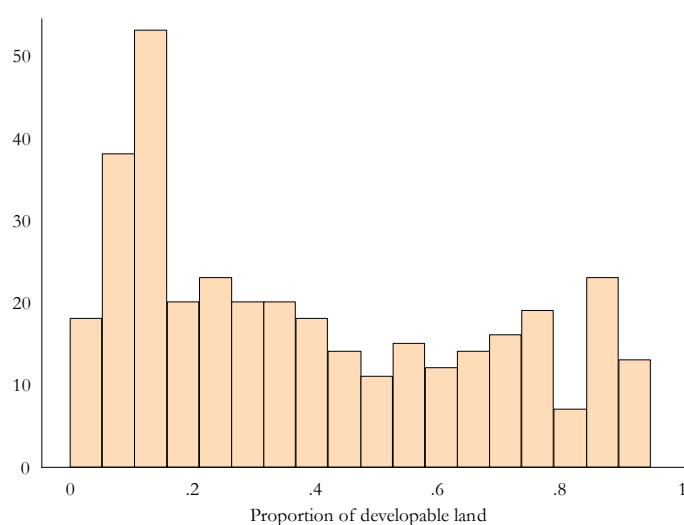
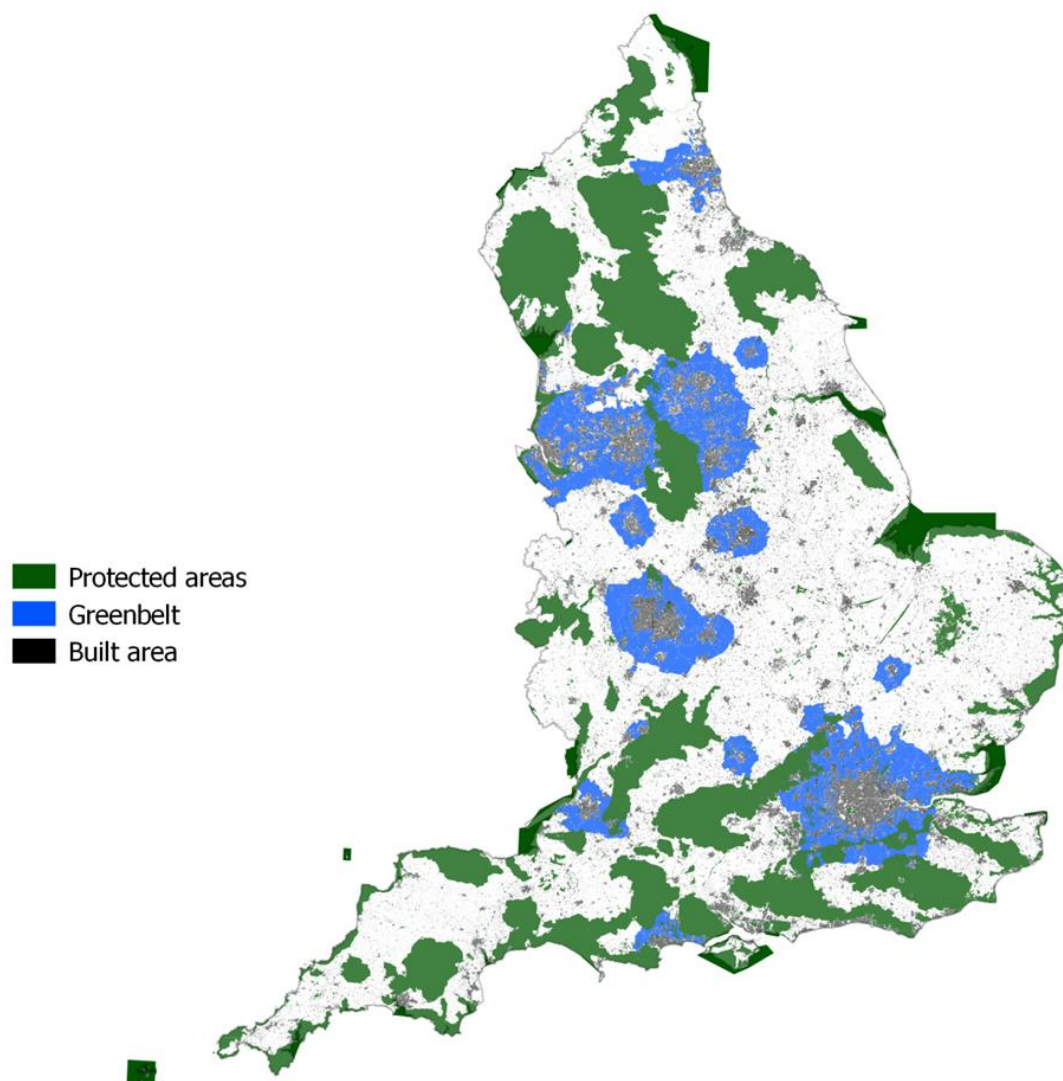


Figure 12: Built, greenbelt and designated protected areas



Refusal rates

This variable was compiled using the same dataset used for the demand variables, where refusal rates were the percentage of major residential applications refused over the time period 1998-2007.

Summary statistics

<i>Variable</i>	<i>Obs</i>	<i>Mean</i>	<i>Std. Dev.</i>	<i>Min</i>	<i>Max</i>
Refusal rates	348	27.83	11.97	4.08	63.87

Figure 13: Histogram and Box Plot

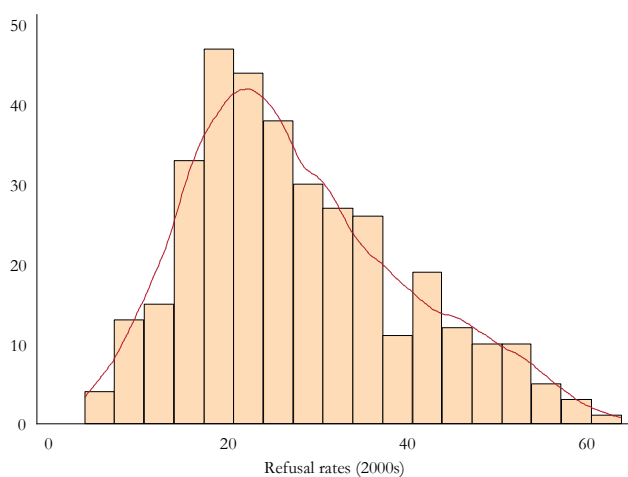
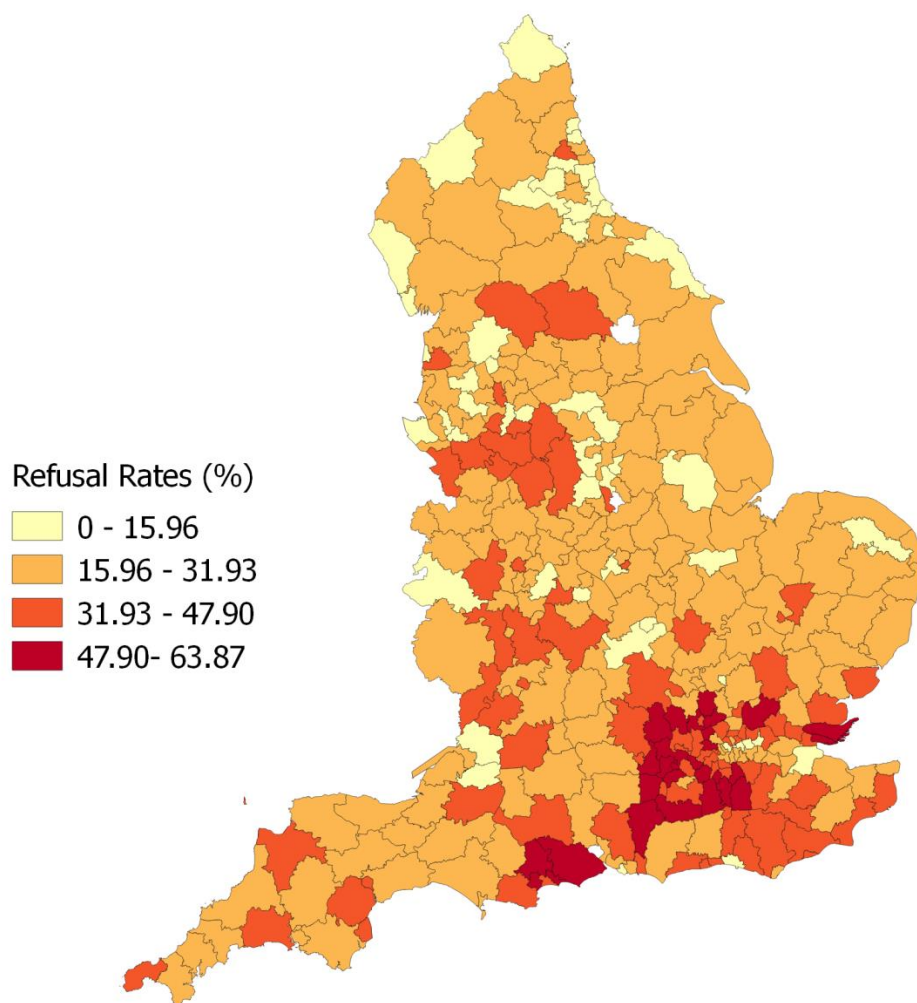


Figure 14: Refusal rates



(NB: Missing values for Nottingham, York, Isle of Wight and Isle of Scilly)

Political variables

Political variables include party seat share, party majority and uncontrolled districts. All political variables were created over the 1998-2008 period using data supplied by The Elections Centre at Plymouth University. We stopped this analysis at 2008 due to the 2009 re-organisations, the assumption being that the growth in dwelling stock over the decade could largely be considered a function of political decisions made a few years before 2001, and a few years before 2011.

Seat share variables were the average seat share of a particular party in a particular district. Party majority variables were dummy variables for whether a party had overall control of a particular local council for more than seven years or whether there was 'no overall control'. (Parallel variables using different year benchmarks were also created for robustness checks).

Figure 15: Local councils marked in red denote 'NOC' dominated districts

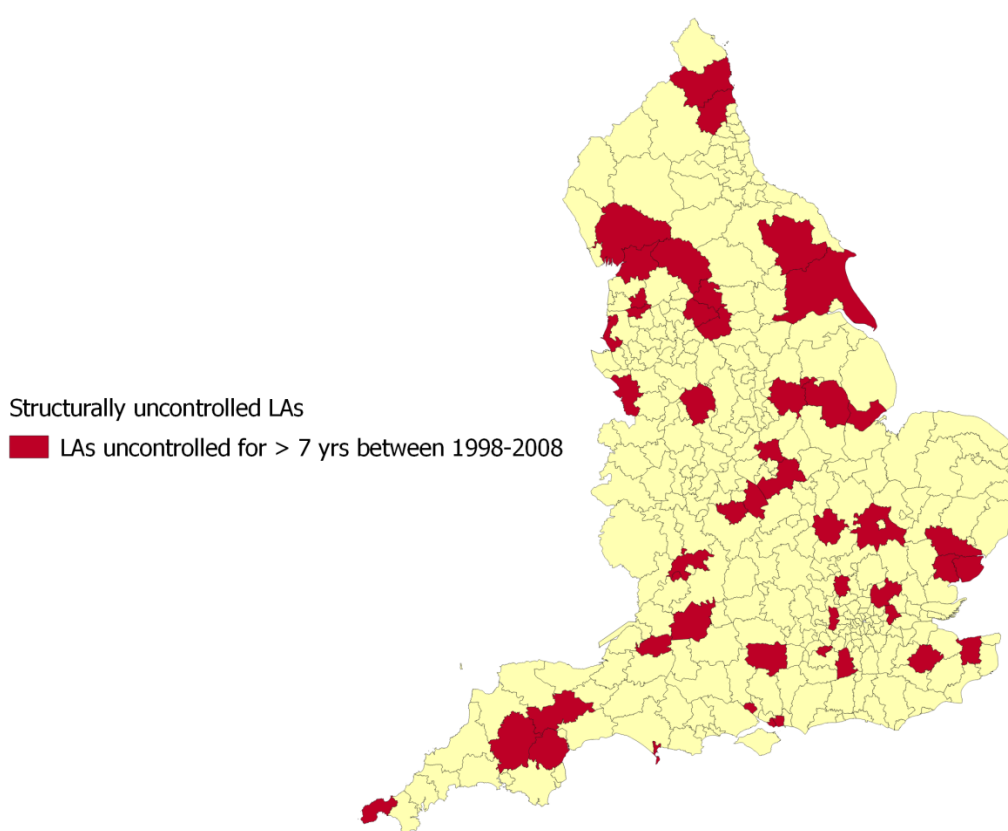
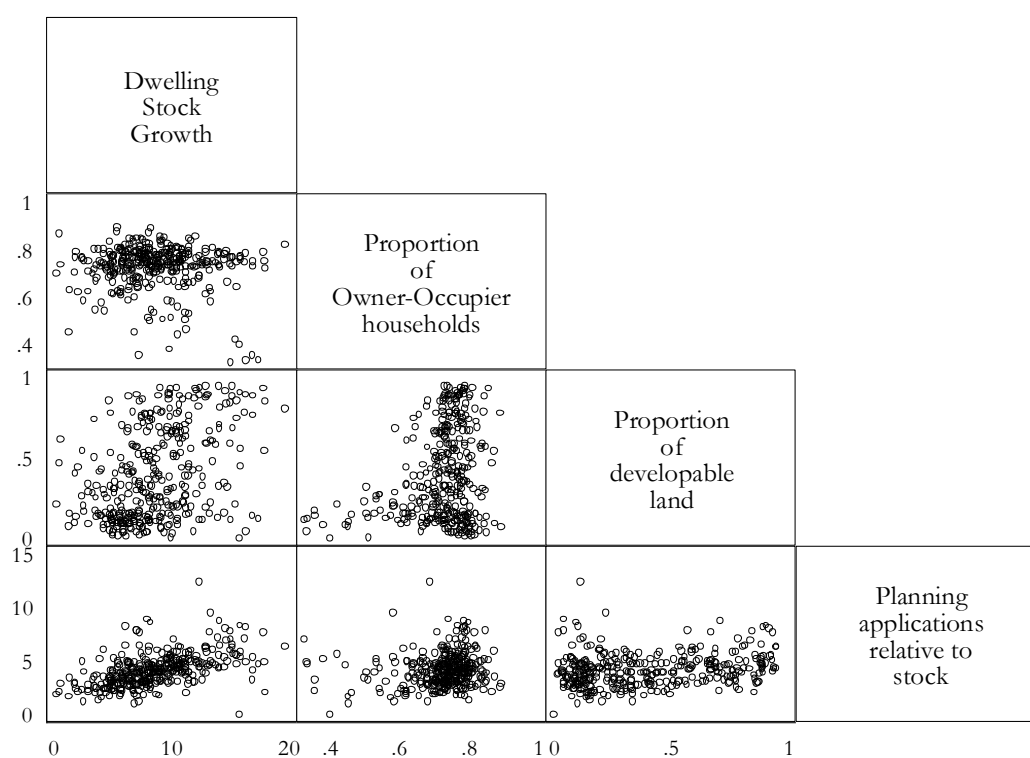


Table 2: Correlation between dependent variable and independent variables

	Dwelling stock growth	Owner-occupiers households	Developable land	Planning applications relative to dwelling stock
Dwelling stock growth	1.0000			
Owner-occupier households	-0.1503 (0.0046)	1.0000		
Developable land	0.3621 (0.0000)	0.2938 (0.0000)	1.0000	
Planning applications relative to dwelling stock	0.5060 (0.0000)	0.1382 (0.0096)	0.2309 (0.0000)	1.0000

Figure 16: Scatterplot matrix for all major variables

(NB: Tower Hamlets with a growth rate of 31.3% has been excluded from above graph for presentation purposes)

Annexe 2: Institutional reform - lessons from other countries

It is relatively easy to find countries where the governance of land is radically different to England's, and where housing supply restrictions are not much of a problem. Germany and Switzerland are common examples. A lot has been written about contrasts between their institutional arrangements and those of England, and about the lessons that can be drawn from those differences.⁵²

While these comparative, static exercises are useful to shed light on the nature of the problems that afflict housing supply in England, they are less informative about what might trigger change. To help shed light on this question, we have looked instead at countries that, at some point in the past and similarly to England, faced problems of restrictive land-use regulation and increasingly unaffordable urban housing.⁵³ The idiosyncrasies of the English planning system and of the wider political economy around housing in England are not perfectly replicated in any of these countries.⁵⁴ This, of course, places significant constraints on the comparison, but we would argue the similarities make the exercise worthwhile. We turn to some of those examples below to extract lessons for the reform of housing policy in England.

By way of anticipating and summarising those lessons, we note here that the case studies support the notion that some degree of decision-making above the local level is paramount – be it through metropolitan planning boards, regional planning bodies, or national planning frameworks. For example, as it will be shown below, it is difficult to see how the rezoning of New York City in the Bloomberg era could have happened were it not for the role of its 'City Planning Commission'. Similarly, attempts to curb urban sprawl in Australia, Canada and in some US states, have required provincial/state-level planning intervention.

In Australia, a rebalancing of planning powers from local to state level is usually attributed to the effects of competitive pressures between states, whose capital cities strive to attract investment; increasing influence of the developers on state governments; and mounting concerns about the economic and environmental sustainability of urban sprawl.

In Florida and Maryland, state intervention (in the form of 'growth management' and 'smart growth' initiatives) appears to have been associated with a coalition of interests (e.g. environmentalists, urban planners, and farmers) that

⁵² E.g. Monk, *et al.* 2013; and Bassett and Malpass, 2013.

⁵³ For a good survey, see McLaughlin, 2012.

⁵⁴ We are not aware of other countries that mirror all the key features of England's housing governance arrangements, namely: (i) planning decisions made at the local level with geographically small LAs and weak regional/state level planning powers; (ii) strong fiscal centralisation and concomitant weak fiscal incentives for LAs to grow; and (iii) an emphasis on individual project development control.

broadly supported curbing urban sprawl, albeit for different reasons. Political ideology at state level has also been linked to the adoption of 'smart growth' policies.

In Vancouver, strong public opposition to large infrastructure projects in the 1960s shaped the future of planning institutions in the region. Large-scale, public consultation processes that were designed to inform metropolitan planning became the norm. They were orchestrated not with the intention or expectation of reaching consensus, but of exposing the public to the trade-offs involved in accommodating growth – for example, containing sprawl and promoting sustainable living environments would make housing more expensive because of constraints on land supply. Consultation prompted the public to express their preferences so they could inform future land-use plans.

The importance of local fiscal incentives for stimulating development is another hypothesis that is corroborated by these case studies. Widening local tax bases appears to have been one of the motivations behind 'urban sprawl' in the US. Similarly, infill development in Canada (e.g. Toronto) has been supported by a relatively generous share of local tax revenue coming from property taxes and impact fees.

New York City

In the second half of the twentieth century, New York experienced a wave of suburban flight and de-industrialisation which reduced the population to an all-time low of approximately seven million residents in 1980. The economy went through a restructuring process towards new industries such as finance, insurance, and real estate. When Mayor Bloomberg was elected, in 2002, New York was booming again. Population levels had recovered to pre-1980 levels and were expected to increase significantly over the following decades. Bloomberg embraced a strategy of redevelopment to help absorb the population influx, keep the city affordable, and stimulate its competitiveness (Podemiski, 2013).

This strategy required changes to planning (zoning) restrictions that needed to be introduced in a relatively short period of time.⁵⁵ A bid to host the 2012 Summer Olympics was used to expedite a number of elements of the rezoning required. The proposed Olympic facilities were concentrated in seven under-utilised areas (including downtown Brooklyn, the East River waterfront, and the west side of Manhattan), that had been previously identified by the city's business leaders as targets for redevelopment. The Olympic bid failed in 2005, but the rezoning efforts

⁵⁵ Zoning is critical for the built form of the city because it is the primary level of review for new built structures. In New York, development is 'as-of-right', i.e. if it complies with applicable zoning regulations it does not require additional review or action by the City Planning Commission or Board of Standards and Appeals. From that point onwards, community groups and government officials have little or no means of influence over development.

were repackaged into the 'PlaNYC 2030', published in 2007 by the Office of Long-Term Planning Sustainability.

The standard process for rezoning projects begins when the Department of City Planning (DCP) identifies an area to study, either in response to neighbourhood or landowner pressure or on its own initiative. This is followed by a consultation process, involving extensive community debate and input from the relevant local borough, which is reflected in recommendations from various sources to approve, modify or oppose the rezoning proposal. These only have an advisory role, not veto or approval power. The proposal is then considered by the City Planning Commission (CPC), which is made up of 13 members: seven appointed by the mayor, one appointed by each borough president, and one appointed by the public advocate (a city-wide elected office). The CPC then votes whether to recommend the proposal to the city council for final approval; to modify the proposal to take account of the reaction of the community board or borough president before sending to city council; or to withdraw the proposal. Finally, the city council considers the proposal.

Between 2002 and 2009, New York City's government proposed and enacted 100 significant changes to the city's zoning map, covering about 20% of its land area, and implementing the most significant change to its land-use regulations since the original version of the current zoning code was adopted in 1961. Been *et al.* (2010) estimated the change in residential development capacity that had resulted from approximately 80% of these zoning changes which occurred between 2003 and 2007. They found that the net impact was a (quite) modest overall increase in the city's total residential capacity. It was, nevertheless, consistent with the city's acknowledged need to accommodate significant population growth in the coming decades, even if there were doubts about whether it would be sufficient.

These changes did not come about without controversy. New York has one of the lowest homeownership rates in the US, yet existing residents complained vociferously to elected officials about the new developments. In fact, a recent study concluded that 'homeowners have much more influence among zoning officials and in City Hall than the received wisdom about urban land-use politics would expect'. McDonnell and Madar, (forthcoming) (p. 5). That said, land-use policies in New York are usually perceived to be relatively flexible and responsive to business interests that tend to push for further development.

Vancouver

Vancouver often appears 'at or close to the top of nearly every international list of the best places to live' (Harcourt *et al.*, 2007, p.1). It has been described as the 'poster child of North American urbanism' (Berlowitz, 2005); and its approach to

urban development – involving extensive public engagement⁵⁶ and an emphasis on careful, compact development – has received international praise. The region has attracted large-scale immigration, becoming one of the most ethnically diverse areas in Canada. Its overall population increased by approximately 45% between 1991 and 2011. It is now one of the most expensive areas in the world.⁵⁷

Metro Vancouver, a regional federation of 24 independent but highly-interconnected municipalities, plays an important role in regional planning. The body is administered by an appointed board comprising elected mayors and councillors. Apart from regional planning, it is responsible for the provision of regional services (e.g. recycling, garbage and sewerage, and regional parks). It has no taxing powers and relies on provincial grants and charging municipalities for the services. Decisions are made ‘horizontally’ through consensus among elected representatives (i.e. mayors and councillors) on the Metro Board.

Back in the 1960s, economic growth was accompanied by a perception of diminishing quality of life. In 1967-68 citizens mobilised against plans for a major freeway that would have cut through the city centre and this led to unprecedented public interest in planning (Ley *et al*, 1992). Regional planners took the view that growth should not simply happen but should be managed and directed in socially beneficial ways, drawing on informed public opinion (Lash, 1976). This was the cornerstone for regional planning in the decades that followed (Owen, 2009).

In 1996 the institutional genesis of Metro Vancouver, the Greater Vancouver Regional District (GVRD) published the *Livable Region Strategic Plan* (LRSP), along with other specific functional plans (in solid waste, water supply, air management, major parks and health care) and a transportation plan. This was meant to put in practice the results of the deliberations over the preceding five years. The plan was presented as a way of addressing the pitfalls of the traditional approach which ‘put development pressure on farmland, increased the distance between jobs and housing, cost too much for public services and utilities, and resulted in worsening air pollution from increased automobile use’.

The LRSP received mixed reviews from internal and external sources (GVRD, 2002; Tomalty, 2002). On the one hand, the protection of a Green Zone was assured, backed by strong citizen support and direct municipal involvement in designation of areas to be set aside (Tomalty, 2002: 443). The City of Vancouver created an urban realm that was generally consistent with the LRSP objectives (see

⁵⁶ In the mid-1990s the City of Vancouver embarked on a consultation process on a grand scale. Survey data suggested that, at a certain point, around 20% of the city’s population felt that they were ‘involved in some way, shape or form’ (City of Vancouver Planning Department, 2006). There was no deliberate attempt to reach agreement. Instead, the public were engaged in ways that highlighted trade-offs, offering people choices with consequences and allowing them to formulate and express their own preferences. Once the plan was designed and city councillors made planning decisions, there was limited opportunity to appeal, which helped to set direction and follow it through.

⁵⁷ Demographia, *10th Annual Demographia International Housing Affordability Survey: Data for 3rd quarter 2013*.

Punter, 2003; Sandercock, 2006). On the other hand, in other parts of the region, urban sprawl continued, with homes and businesses spreading away from town centres and transit links.

There were a number of reasons associated with these trends. First, although Provincial legislation required municipalities to show how their own community plans reflected the LRSP's objectives in 'regional context statements', in practice this was relatively vague and allowed municipalities to approve development contrary to the LRSP's spirit.

Second, fierce regional competition for investment led suburban municipalities to accommodate business and residential development in greenfield areas, rather than directing it to the more expensive town centres.

Third, the City of Vancouver model – prioritising high-density, compact development – was praised by some but derided by others who saw it as an icon of congested, unaffordable urban spaces (Boddy, 2006; Florida, 2002). Municipalities and their citizens were often supportive of regional liveability goals in the abstract (i.e. during public consultations on planning principles), but more reluctant to accept them in practice when specific projects were proposed (Tomalty, 2002).

Maryland and Florida

In the United States, local governments are the primary agents of land-use regulation, but authority is derived from state-level enabling legislation. Local governments enjoy substantial freedom in the way they go about carrying out 'zoning', but the source of this freedom rests with state governments (Boarnet *et al.*, 2011).

As urbanisation spread, families relocated to the suburbs to escape the hustle and bustle of sprawling central cities. Businesses followed suit, seeking favourable environments in which to operate. Development leaped to the suburbs, leaving urban areas stricken with poverty, homelessness and substandard schools. 'Sprawl' – a low-density, spatially expansive mode of urbanisation – became 'ubiquitous' in the United States (Glaeser and Kahn, 2004).

In the 1980s, state governments began to realise that excessive outward development was creating problems that were spilling over into other jurisdictions, and saw the need to intervene. Florida's 1985 historic land-use planning statutes marked one of the first attempts at reform of growth management at state level. The emphasis of the Florida statutes was to protect open land from encroaching development, particularly along the coast and environmentally sensitive areas (Gray, 2005).

The 1990's saw the emergence of 'smart growth'⁵⁸ – a movement that encouraged states to pass growth management laws that promoted affordable housing, sustainable transportation systems, and environmental protection. In practice, it was an attempt to shift development away from the rural, ex-urban fringe into designated areas that included existing communities, both inner city and suburban areas. The movement had no central identifiable constituency, and there was no common set of grievances across all its members (Goetz, 2005)⁵⁹. There were, however, certain groups of supporters that stood out: environmentalists, urban planners, some farming groups, and in some cases, suburban residents who expressed discontent with sprawl-related traffic congestion.

It is common for state growth management to be seen as an increase in land-use regulation, but in some ways the opposite is true. State interference often involves rolling back some of local governments' autonomy in ways that create more consistency in the regulatory landscape (Burby and May, 1997), so that the end result can be a less volatile mix of regulations (Boarnet *et al.*, 2011).

In 1997, Maryland became one of the first states to adopt smart growth.⁶⁰ The cornerstone of the plan was to place limitations on new development and instead, encouraged construction in state-designated areas. Other states followed suit – Rhode Island, Colorado, and the landmark New Jersey State Development and Redevelopment Program.

Florida's growth management program

Florida's involvement in land-use planning grew out of the environmental activism of the late 1960s and early 1970s. In 1970s, an increased consciousness of land-use issues led to the introduction of legislation that protected state-designated critical areas and regulated developments of regional impact. In the 1980s, new legislation established a formal requirement that local plans be consistent with regional plans and, in turn, with the state plan—and also mandated that infrastructure investment be concurrent with land development.

⁵⁸ Some of the originators included the American Planning Association (APA), the US Department of Housing and Urban Development (HUD), the Henry M Jackson Foundation and the Natural Resource Defense Council (NRDC), and the Surface Transnational Policy Project (STRP) (Burchell *et al.* 2000)

⁵⁹ In 'The big tent of growth management; smart growth as a movement', (p.46), Goetz writes, 'Historic preservation activists support smart growth for its emphasis on redevelopment and rehabilitation of older structures and older settlements. Environmentalists and transit activists are, of course, central actors in the smart growth coalition. Advocates for affordable housing support smart growth because they favour the redevelopment of older neighbourhoods and the mixing of income within new residential areas. Central city neighbourhood organisations support smart growth because they favour brownfield redevelopment and improvements to declining urban infrastructure called for by the movement. Farmers support efforts to preserve agricultural land, and public health organisations point to the health problems associated with sprawl. Even the Union for Reform Judaism has supported smart growth because of its potential to narrow the gap between the affluent and the poor, which, the organisation maintains, is in line with Judaism's tenet of *tikkun olam* (repairing the world).'

⁶⁰ Many scholars believe the state of Oregon was a pioneer in this area.

A core goal of this legislation was to increase the density of urban growth. It was founded on three main principles (Ben-Zadok, 2005): 'consistency', which required local comprehensive plans to support both state and neighbouring cities' plans; 'concurrency', which required growth supporting infrastructure (sewers, roads, parks, and more) to meet adequate service capacities before new development occurs; and 'compact development', encouraging local governments to reduce low-density, spatially expansive modes of land use.

To encourage plan consistency, the state utilised both 'carrot' and 'stick' approaches (Burby and May, 1997). The carrot primarily consisted of financial and technical support to local governments that adopted plans consistent with state goals (over \$36 million between 1985 and 1993). The stick consisted of a threat to withhold certain sources of funding, such as shared tax revenues provided by the state legislature. This sanction was first implemented in 1989 and continues to be an essential enforcement tool.

Maryland

The emergence of smart growth in Maryland is attributed to three main developments: a widespread public desire to preserve the health of the Chesapeake Bay; a strong resistance to state invention in local land-use planning; and political tension between urban and rural interests (Cohen 2002).

The 1970s saw a marked departure from local government authority over land-use planning and growth management. In response to reports that expressed concern over the environmental health of the Chesapeake Bay, the State of Maryland began to take a more active role in growth management. Local governments were required to submit comprehensive land use and growth management plans every six years, and were required to abide by state imposed restrictions barring development in critical areas, to protect open space, preserve farmland, and the Chesapeake Bay.

In 1997, Governor Parris N Glendening expressed reservations about the ability of the existing legislative framework to ensure local governments were committed to growth controls. Backed by a powerful legislature, urban planners, environmentalists and even some in the construction and real estate industry, Governor Glendening promoted the passage of new land conservation laws, which would become the backbone of Maryland's 'smart growth' plans.

Political ideology seems to have played an important role in enacting this legislation. Smart growth enjoyed widespread support among Maryland's most progressive elite. In the more progressive areas of the state – the Northern Virginia towns of Falls Church and Fairfax City, for example – smart growth flourished. That did not happen in the more conservative, rural areas of the state in the western and southern regions, including Worchester, Frederick, Carroll and Wimico counties. Apart from political ideology, the success of smart growth programmes seems to

have relied considerably on co-operative agreements between multiple stakeholders, often with conflicting interests (Gray, 2005).

Australia

The relevant constitutional powers are held by state governments, with national governments mostly reluctant to use their financial resources to become involved in planning, and with local governments relying on state dispensation for the exercise of residual powers (Glen and Bunker, 2010).

While local strategic land-use planning was customarily the preserve of local government, the role of state governments⁶¹ (and to a certain extent of the Commonwealth Government) has increased in recent years (Williams & Maginn, 2012). This has taken various forms, from local government amalgamations, the appointment of local government or planning administrators and planning panels, to the calling-in of planning decisions by state planning ministers on the grounds of 'state significance' (Williams, 2014).

There are several (interrelated) reasons that have been proposed to explain this centralising tendency. First, state governments saw the need to create streamlined planning systems that allowed their capital cities to compete successfully in a globalising economy. Second, they sought to reduce the effectiveness of community attempts to stop urban consolidation in particular, allowing metropolitan areas to grow in more environmentally sustainable ways (i.e. within the existing urban area). Third, parts of this agenda reflected the growing political influence of the development industry on state governments, particularly via donations to the main political parties and through the increasing importance of public-private infrastructure partnerships funded by Australia's very large and growing pool of compulsory superannuation (pension) contributions (Glen and Bunker; 2010; Williams, 2014).

With regard to housing in particular, it had become increasingly accepted that planning regulation was imposing undue restrictions on housing supply. One response to these concerns was to accelerate the release of greenfield land (e.g. the Victorian Government increased Melbourne's urban growth boundary in mid-2010; in Adelaide, large tracts of new land were released for development in 2010 and 2011). A second response was to centralise planning power for major new residential development proposals in state authorities.⁶²

These authorities had two main purposes:

- to address community opposition to infill development, which was in some cases balanced by earlier community engagement

⁶¹ Including newer state-appointed planning panels.

⁶² E.g. Development Facilitation Services in Queensland and the Development Assessment Panel in Western Australia.

- to streamline the development process, co-ordinating the multiple government agencies and infrastructure providers involved.

Thus far, there have been mixed responses as to whether these authorities have achieved their stated aims, and some states have returned greater control to local councils (Hsieh *et al.*, 2012).

References

- Ahlfeldt, G. and Maennig, W. (2012), 'Voting on a NIMBY Facility: Proximity Cost of an "Iconic" Stadium', *Urban Affairs Review*, 48(2), p.205-237.
- Allmendinger, P., Andrew, M., Ball, M., Cameron, G., Evans, A., Gibb, K., Goody, J., Holmans, A., Kasparova, D., Meen, G., Monk, S., Muellbauer, J., Murphy, A., Whitehead, C., and Wilson, A., *Affordability Targets: Implications for housing supply*, Office of the Deputy Prime Minister, London, 2005.
- Barker, K., *Review of Housing Supply: Interim report*, The Stationary Office, London, 2003.
- Barker, K., *Barker Review of Housing Supply*, HM Treasury, London, 2004.
- Barker, K., 'Planning policy, planning practice, and housing supply', *Oxford Review of Economic Policy*, 24(1), 2008, p.34-49.
- Bassett, M. and Malpass, L., *Different Places, Different Means: Why some countries build more than others*, The New Zealand Initiative, Wellington, 2013.
- Bates, L. and Santerre, R., 'The determinants of restrictive residential zoning: some empirical findings', *Journal of Regional Science*, 34(2), 1994, p.253–263.
- Been, V., Madar, J., and McDonnell, S., 'Urban land use regulation: Are homevoters overtaking the growth machine?' *The Journal of Empirical Legal Studies*, Cornell University Law School, New York, forthcoming.
- Been, V., McDonnell, S., and Madar, J., 'The sum of Its parts: A comprehensive analysis of rezonings in New York City', paper presented at the 2010 Meeting of the American Law and Economics Association, 2010.
- Belfield, C., Cribb, J., Hood, A. and Joyce, R., *Living Standards, Poverty and Inequality in the UK: 2014*, Institute for Fiscal Studies, London, 2014. Retrieved 12 October 2014 from <http://www.ifs.org.uk/publications/7274>
- Ben-Zadok, E., 'Consistency, concurrency and compact Development: Three faces of growth management implementation in Florida', *Urban Studies*, 42, University of Glasgow, Glasgow, 2005, p.2167–2190.
- Berlowitz, L., *Dream City: Vancouver and the Global Imagination*, Douglas & McIntyre, Vancouver, 2005.
- Blacklock, K., and Whittaker, M., *Hangover Cure: Dealing with the household debt overhang as interest rates rise*, Resolution Foundation, London, 2014.
- Boarnet, M., McLaughlin, R., and Carruthers, J.I., 'Does state growth management change the pattern of urban growth?' *Regional Science and Urban Economics*, 41, 2011, p. 236-252

- Boddy, T., 'Downtown's Last Resort', *Canadian Architect*, August 2006, p.20–22.
- Bramley, G., and Leishman, C., 'Planning and housing supply in two-speed Britain: Modelling local market outcomes', *Urban Studies*, 43(12), November 2005.
- Brueckner, J., 'Testing for strategic interaction among local governments: The case of growth controls', *Journal of Urban Economics*, 44(3), 1998, p.438-467.
- Brueckner, J., 'Strategic control of growth in a system of cities', *Journal of Public Economics*, 57(3), 1995 p.393–416.
- Brunner, E. and Sonstelie, J., 'Homeowners, property values, and the political economy of the school voucher', *Journal of Urban Economics*, 54, 2003, p.239–257.
- Brunner, E., Sonstelie, J., and Thayer, M., 'Capitalization and the voucher: An analysis of precinct returns from California's Proposition 174', *Journal of Urban Economics*, 50, 2001, p.517–536.
- Buiter, W., 'Housing wealth isn't wealth', *Economics - The Open-Access, Open-Assessment E-Journal*, Kiel Institute for the World Economy, 4(22), 2010, p.1-29.
- Burby, R. and May, P., *Making Governments Plan*, Johns Hopkins University Press, Baltimore, 1997.
- Burchell, R., Listokin, D., and Catherine C., 'Smart growth: More than a ghost of urban policy past, less than a bold new horizon', *Housing Policy Debate*, 11(4), 2000, p.821-878.
- Caldera, A., Johansson, A., 'The price responsiveness of housing supply in OECD countries', *Journal of Housing Economics*, 22, 2013, p.231-149.
- Carruthers, J., 'The impacts of state growth management programs: A comparative analysis', *Urban Studies*, 39, 2002 p.1959–1982.
- Carruthers, J., 'Growth at the fringe: The influence of political fragmentation in the United States metropolitan areas', *Papers in Regional Science*, 82, 2003, p.475-499.
- Carruthers, J. and Ulfarsson, G., 'Fragmentation and sprawl: Evidence from interregional analysis', *Growth and Change*, 33, 2002, p.312–340.
- Chakraborty, I., Goldstein, I., and MacKinlay, A., *Do Asset Price Bubbles Have Negative Real Effects?* University of Pennsylvania and SMU Working Paper, 2013.
- Cheshire, P., Nathan, M., and Overman, H., *Urban Economics and Urban Policy: Challenging conventional policy wisdom*, Edward Elgar, 2014.
- Clingermayer, J., 'Distributive politics, ward representation, and the spread of zoning', *Public Choice*, 77(4), 1993 p.725–738.

Cohen, J., 'Maryland's "Smart Growth": Using incentives to combat sprawl', in *Urban Sprawl: Causes, Consequences, and Policy Response*, Gregory D. Squires (ed), Urban Institute Press, Washington, D.C. 2002.

Confederation of British Industry (CBI), *Housing Britain: Building new homes for growth*, CBI, London, 2014, p.3. Retrieved 12 October 2014 from <http://www.cbi.org.uk/media/2876609/homes-for-growth.pdf>

DCLG (2011), *Public attitudes to housing in England: Report based on the results from the British Social Attitudes Survey*, Department for Communities and Local Government (DCLG), London.

Dehring, C., Depken, C., and Ward, M., 'A direct test of the homevoter hypothesis', *Journal of Urban Economics*, 64(1), 2008 p.155-170.

Demographia, *10th Annual Demographia International Housing Affordability Survey: Data for 3rd quarter 2013*, Demographia, Illinois, 2014. Retrieved 12 October 2014 from <http://www.demographia.com/dhi.pdf>

Demographic Analysis Unit, *Labour Force Survey, Young Adults Living with Parents 1996-2013*, Office for National Statistics (ONS), January 2014. Retrieved 12 October 2014 from <http://tinyurl.com/la5zu5h>

Dol, K., and Haffner, M., *Housing Statistics in the European Union 2010*, Ministry of the Interior and Kingdom Relations, The Hague, September 2010. Retrieved 12 October 2014 from <http://tinyurl.com/mblhbsk>

Dubin, J., Kiewiet, D., and Noussair, C., 'Voting on growth control measures: preferences and strategies', *Economics and Politics*, 4(2), 1992, p.191–213.

Evenson, B. and Wheaton, W., 'Local variations in land use regulations', *Brookings-Wharton Papers on Urban Affairs*, 2003(4), p.221–260.

Fischel, W., *The Homevoter Hypothesis: How Home Values Influence Local Government Taxation, School Finance, and Land-Use Policies*, Harvard University Press, Cambridge Massachusetts, 2001.

Fischel, W.), 'An economic history of zoning and a cure for its exclusionary effects', *Urban Studies*, 41(2), 2004, p.317-340.

Florida, R., *The Rise of the Creative Class: And how it's transforming work, leisure and everyday life*, Basic Books, New York, 2002.

Fulton, W., Pendall, R., Nguyen, M., and Harrison, A., 'Who sprawls the most? How growth patterns differ across the US', The Brookings Institution, Center on Urban and Metropolitan Policy, 2001.

Gallent, N. and Robinson, S., *Neighbourhood Planning: Communities, networks and governance*, The Policy Press, Bristol, 2012.

Gallent, N., Hamiduddin, I., and Madeddu, M., 'Localism, down-scaling and the strategic dilemmas confronting planning in England', *Town Planning Review*, 84(5), 2013, p. 563-582.

Glaeser, E. and Ward, B., 'The causes and consequences of land use regulation: evidence from Greater Boston', *Journal of Urban Economics*, 65(3), 2009, p.265–278.

Glaeser, E., Gyourko, J., and Saiz, A., 'Housing supply and housing bubbles', *Journal of Urban Economics*, 64(2), 2008, p.198-217.

Glaeser, E., Gyourko, J., and Saks, R., 'Why is Manhattan So Expensive? Regulation and the rise in house prices', *Journal of Law and Economics*, 48(2), 2005, p.331-370.

Glaeser, E., Kahn, M., Chu, C., 'Job sprawl: Employment location in US metropolitan areas', The Brookings Institution, Center on Urban and Metropolitan Policy, 2001.

Glen, S. and Bunker, R., 'New Century Australian Spatial Planning: Recentralization under Labor', *Planning Practice & Research*, 25(4), 2010, p. 517-529.

Goetz, E.G., 'The big tent of growth management: smart growth as a movement', in Bengston, D. N., *Policies for managing urban growth and landscape change: a key to conservation in the 21st century*. Gen. Tech. Rep. NC-265. St. Paul, MN: U.S. Department of Agriculture, Forest Service, North Central Research Station, 2005, p. 45-51.

Gordon, T., 'Bargaining in the shadow of the ballot box: Causes and consequences of local voter initiatives', *Public Choice*, 141(1–2), 2009, p.31–48.

Gray, R.C., 'Growing expectations: Understanding the politics of smart growth in the American States', PhD thesis, University of Maryland, Department of Government and Politics, 2005.

Greater Vancouver Regional District (GVRD), *Livable Region Strategic Plan*, Vancouver, 1996.

GVRD, *2002 Annual Report: Livable Region Strategic Plan*, 2002, Vancouver.

Hall, P. and Tewdwr-Jones, M., *Urban and regional planning*, Fifth edition, Abingdon, Oxon, England, Routledge, New York, 2011.

Hall, P., Gracey, H., and Thomas, R. *The Containment of Urban England*, Allen and Unwin, London, 1973.

Harcourt, M., Cameron, K. and Rossiter, S., *City Making in Paradise: Nine decisions that saved Vancouver*, Douglas & McIntyre, Vancouver, 2007.

Haselhoff, K., Ong, P., 'NIMBY Opposition to Housing Development in Southern California', Ziman Center for Real Estate Studies, working paper 2007-06, University of California, Los Angeles, 2007.

Helsley, R. and Strange, W., 'Strategic growth controls', *Regional Science and Urban Economics*, 25(4), 1995, p.435–460.

Hilber, C. and Robert-Nicoud, F., 'On the origins of land use regulations: Theory and evidence from US metro areas', *Journal of Urban Economics*, 75, 2013, p.29-43.

Hilber, C. and W. Vermeulen, *The Impacts of Restricting Housing Supply on House Prices and Affordability: Final report*, Department for Communities and Local Government, London, 2010. Retrieved 12 October 2014 from https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6357/1767142.pdf

Hilber, C., and Mayer, C., 'Why do households without children support local public schools? Linking house price capitalization to school spending', *Journal of Urban Economics*, 65(1), 2009, p.74–90.

Hilber, C., Koster, H. and Vermeulen, W., *Determinants of Land Use Planning Restrictiveness: Panel Data Evidence from England*, presentation to the Weimer School of Advanced Studies in Real Estate and Land Economics, Homer Hoyt Institute, Palm Beach (FL), United States, 2014.

Hsieh, W., Norman, D., and Orsmond, D., *Supply-side Issues in the Housing sector*, Reserve Bank of Australia, 2012.

Kahn, M., 'Do liberal cities limit new housing development? Evidence from California', *Journal of Urban Economics*, 69(2), 2011, p.223-228.

Kay, J., 'The tyranny of the minority in the age of technology', *Financial Times*, 11 June 2013. Retrieved 14 October 2014 from <http://tinyurl.com/jvzvob4>

Killian, J. and Pretty, D., *Planning Applications: A faster and More Responsive System – Final Report*, Department for Communities and Local Government, London, 2008.

Lash, H., *Planning in a Human Way: Personal reflections on the regional planning experience in Greater Vancouver*, Ministry of State for Urban Affairs, Ottawa, 1976.

Ley, D., Hiebert, D., and Pratt, G., 'Time to grow up? From urban village to world city, 1966-91', in Wynn, G., and Oke, T., (eds) *Vancouver and Its Region*, Vancouver, UBC Press, 1992, p.234–266.

Lubell, M., Feiock, R., and Ramirez, E., 'Political institutions and conservation by local governments', *Urban Affairs Review*, 40(6), 2005, p.706–729.

Lyons, *The Lyons Review of Housing – Mobilising across the nation to build homes our children need*, Your Britain, London, 2014.

Max Podemiski, 'The New-New York: Upzoning neighborhoods in the era of Bloomberg', Masters thesis, M.S., Columbia University, 2013.

Mayer, C. and Somerville, C., 'Land Use Regulation and New Construction.' *Journal of Planning Literature*, 15(3), 2001.

McDonald, J. and McMillen, D., 'Determinants of suburban development controls: a Fischel expedition', *Urban Studies*, 41(2), 2004, p.341-361.

McLaughlin, R., 'Land use regulation: Where have we been, where are we going?' *Cities*, 29(1), 2012, p. S50-S55.

Monk, S., Whitehead, C., Burgess, G., and Tang, C., *International Review of Land Supply and Planning Systems*, Joseph Rowntree Foundation, London, 2013.

Morton, A., *Planning for Less: The impact of abolishing regional planning*, The Policy Exchange, London, 2012. Retrieved 12 October 2014 from <http://www.policyexchange.org.uk/images/publications/planning%20for%20less.pdf>

National Audit Office (NAO), *Planning for Homes, Speeding Up Planning Applications for Major Housing Developments in England*, London, 2008.

ONS, A Century of Home Ownership and Renting in England and Wales, April 2013. Retrieved 12 October 2014 from <http://tinyurl.com/bukudpe>

Osborne, G., 'Mansion House speech in full', The Telegraph, 12 June 2014. Retrieved 12 October 2014 from <http://tinyurl.com/ndvzzpa>

Overman, H., 'Should we build on the Greenbelt?' LSE British Politics and Policy blog, 2012. Retrieved 12 October 2014 from <http://tinyurl.com/pok5g3d>

Owens, C., 'Challenges in Evaluating Livability in Vancouver, Canada', Case study prepared for *Planning Sustainable Cities: Global Report on Human Settlements*, United Nations, 2009.

Pendall, R., 'Opposition to housing NIMBY and beyond', *Urban Affairs Review*, 35(1). 1999, p.112-136.

Pogodzinski, J., and Sass, T., 'The theory and estimation of endogenous zoning', *Regional Science and Urban Economics*, 24(5), 1994, p.601-630.

Powe, N.A. and Hart, T., 'Housing development and small town residential desirability', *Town Planning Review*, 82(3), 2011, p.317-340.

Punter, K., *The Vancouver Achievement: Urban Planning and Design*, UBC Press, Vancouver, 2003.

Rudlin, D., and Falk, N., Uxcester Garden City, Wolfson Economics Prize 2014 – Second Stage Submission, Urbed, Manchester, August 2014. Retrieved 12 October 2014 from <http://tinyurl.com/mzdvkcm>

Sandercock, L., 'An Anatomy of Civic Ambition in Vancouver: Toward humane density', in W. Saunders (ed) *Urban Planning Today*, University of Minnesota, Minneapolis, 2006, p.48–62.

Schone, K., Koch, W., and Baumont, C., 'Modelling local growth decisions in a multi-city case: Do spatial interactions and lobbying efforts matter?' *Public Choice*, 154, 2013, p.95–117.

Searl, G. and Filion, P., 'Planning Context and Urban Intensification Outcomes: Sydney versus Toronto', *Urban Studies*, 48(7). 2011, p.1419-1438.

Sleight, H, House Building: December Quarter 2013, England, Department for Communities and Local Government, London, February 2014. Retrieved 12 October 2014 from <http://tinyurl.com/kyp2l4p>

Solé-Ollé, A. and Viladecans-Marsal, E., 'Lobbying, political competition, and local land supply: Recent evidence from Spain', *Journal of Public Economics*, 96, 2011, p.10–19.

Sturzaker, J., 'The exercise of power to limit the development of new housing in the English country side', *Environment and Planning*, 42, 2010, p.1001-1016,

Tomalty, R., 'Growth Management in the Vancouver Region', *Local Environment*, 7(4), 2002, p.431-445.

Turner, Adair. *Creating Money: for what purpose?*, London School of Economics, March 2014. Retrieved from <http://tinyurl.com/ogm4h6y>

Whitehead, C., The Density Debate: A personal view, London School of Economics and Cambridge Centre for Housing and Planning Research, London, 2008. Retrieved 12 October 2014 from <http://tinyurl.com/nkdnakt>

Wiley, K., An [Exploration](#) of the [Impact](#) of [Residential Infill](#) on [Neighborhood Property Values](#), University of Maryland, Baltimore County (UMBC), 2009. Retrieved 12 October from <http://contentdm.ad.umbc.edu/cdm/ref/collection/ETD/id/24227>

Williams, P., 'The panelization of planning decision making in Australia', *Planning, Practice & Research*, 2014.

Williams, P. and Maginn, P., 'Planning and governance', in Thompson, S., and Maginn, P., (eds) *Planning Australia: An overview of urban and regional planning*, 2nd ed., Cambridge University Press, Port Melbourne, 2012.

Young, M., Local Authority Revenue Expenditure and Financing: 2013-14 Budget, England, DCLG, July 2013. Retrieved 12 October 2014 from <http://tinyurl.com/ks7db4f>