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SHOVEL READY?

AN EMPIRICAL INVESTIGATION OF STALLED RESIDENTIAL SITES

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Abstract

Drawing upon a national database of unimplemented planning permissions and 18 in-depth case studies, this paper provides both a quantitative and qualitative analysis of the phenomenon of stalled sites in England. The practical and conceptual difficulties of classifying sites as stalled are critically reviewed. From the literature, it is suggested that planning permission may not be implemented due to lack of financial viability, strategic behaviour by landowners and house-builders and other problems associated with the development process. Consistent with poor viability, the analysis of the national database indicates that a substantial proportion of the stalled sites is high density apartment development and/or is located in low house value areas. The case studies suggest that a combination of interlinked issues may need to be resolved before a planning permission can be implemented. These include; the sale of the land to house-builders, re-negotiation of the planning permission and, most importantly, improvement in housing market conditions.

Key words

Stalled sites, development, viability, planning

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1. Introduction

Controversy regarding the interaction of housing supply, economic growth and 'banked', vacant, stalled, dormant or derelict sites has been a recurring feature of British urban policy. Since the global financial crisis, the failure by developers to implement projects which have planning permission has been a source of frustration for central and local government. At a national level, central government has viewed increased housing market and development activity as a key mechanism to stimulate the macro-economy. In September 2012, the Mayor of London stated that there were 170,000 dwellings in stalled developments in the UK capital[1]. He suggested that that these developments were stalled for a number of reasons; inability to access development and mortgage finance, overpayments for sites and unviable planning obligations were mentioned.

Drawing upon the research results of a government-sponsored research project, this paper provides an analysis of the nature and causes of stalled development projects. It analyses a national database of stalled projects to identify broad patterns and, in addition, investigates a sample of case studies to identify the detailed factors that may result in lack of progress for schemes with planning permission. The paper therefore begins with a discussion of the, perhaps nebulous, concept of a 'stalled' site and discusses the range of factors that can result in the non-implementation of a planning permission. Drawing upon a national database and case studies, the third section sets out the method and data sources used to investigate the scope, types and causes of stalled sites in England. This is followed by a discussion of the findings from the data analysis. Finally, conclusions are drawn.

2. Defining Stalled Sites

In 2011 the UK Government launched the 'Get Britain Building' programme as part of its Housing Strategy. The programme aims to unlock locally-backed stalled sites with planning permission to deliver up to 16,000 new homes. Stalled sites are defined, albeit quasi-statutorily, as follows:

> *"Stalled sites (which could be a standalone phase within a wider scheme) will be defined as those where there has been no construction activity on the relevant phase since 1 September 2011 (excluding site clearance / remediation, affordable housing delivery construction where it has been possible to progress this in advance of other elements of the site and / or limited activity to implement or maintain a planning permission)"*

Whilst the specific date is there for operational reasons, the key point is that a site is 'shovel ready' with planning permission (including a S106 agreement) in place. In essence, a stalled site is defined broadly as a scheme with planning permission that is NOT being implemented. However, if we view stalled sites through the framework of an event-event production system model, this definition seems

[1] http://www.guardian.co.uk/media/davehillblog/2012/sep/20/boris-johnson-london-housing-crisis-andrew-boff

restrictive. In the standard event sequence models of the development process, there are many events that typically precede the award of full planning permission (see Ball, 2010 for a description). Typically the process begins with the identification of the development opportunity, land assembly, feasibility analysis, regulatory approval etc. Using a definition that defines a site as stalled *after* planning permission has been obtained means that, what is often perceived to be the most time-consuming and difficult elements of the development process, can be omitted from an analysis of stalled sites (Healey, 1992). The GBB approach narrowly defines development projects as stalled when the regulatory conditions for physical implementation have been fulfilled. Yet it is clear from Healey's model of the development process that there are many planning-related events that precede physical implementation of a development project at which a development opportunity can become stalled (Healey, 1991). The (by no means comprehensive) sequence of events outlined below illustrates the number of stages at which delay can occur.

a) Site attains a latent development value.
b) Site is identified as a potential development opportunity.
c) Landowner/developer initiation of development.
d) Potential schemes are conceived and their feasibility assessed.
e) Pre-application discussions with and lobbying of local regulatory authorities and other stakeholders takes place, representations made to planning policy formation processes.
f) Site is allocated for development in a Local Plan or via a Local Development Order.
g) Negotiation of planning obligations occurs.
h) Application for outline planning permission is made.
i) Application for full planning permission is made.
j) Full planning permission is granted.
k) Construction of development commences.

In terms of *identifying* stalled sites, one key issue is establishing how long these stages *normally* take. Following the GBB definition, it might be expected that a site should only be defined as stalled when an *abnormal* time period has lapsed since the penultimate event in the development process. A study involving 509 housing schemes (consisting of 10 or more homes) completed in London during 2006 provides a useful indicator of *normal delay* between planning permission and implementation (Craine, 2012). Bearing in mind the buoyant development market conditions prevalent at this time, the study found that eight months was a typical period between grant of full planning consent and start of construction (DCLG, 2007, 35).

One advantage of the *Get Britain Building* definition above is that it is fairly straightforward to classify sites as stalled. However, the narrowness of this definition also needs to be interpreted in the

context of its purpose. The definition of a stalled site guides researchers where, in the Popperian sense, to 'shine the torch' in terms of identifying causation. Clearly, when explaining why a development scheme is stalled, certain factors may have different levels of significance at different stages in the site 'production system'. Given the objectives of the government to stimulate housing supply in the short-term, the *Get Britain Building* scheme was essentially targeted at sites where construction could commence rapidly. However, as pointed out above, it is also the case that sites may be 'blocked' much further back in the 'planning pipeline'. For instance, in some situations there can a resolution to grant permission but, for whatever reason, the s106 agreement has not been agreed between the local planning authority and developer(s). Even further back in the 'pipeline', failure to agree on key issues at pre-application negotiations may mean that sites are stalled because the local planning authority and the applicant cannot reach agreement on key issues. Effectively, the result may be that the site is 'stalled' because of planning obligations at an earlier stage in the planning system. Whilst it seems reasonable to infer that sites stalled at an earlier stage in the planning process are more likely to be stalled for planning reasons, it is also the case that a proportion of such sites are likely to have a long development history in which this may simply be the 'latest instalment'.

A specific situation seems to be indicated in the *Get Building Britain* definition of stalled sites. It is that the developer has obtained planning permission, signed a s106 agreement, etc. but is currently unable to implement the permission because the development is not (sufficiently) profitable with its current permission. The implication is that a downturn in market conditions has made a once viable development now financially unviable. Recent Government policy has sought to address this 'viability problem' by introducing a series of measures that might render the development viable once again. These include:

- A direct financial subsidy
- A re-negotiation of the s106 agreement
- A re-negotiation of other terms of the planning application

However, there may be other explanations for non-implementation of permission to develop unrelated to the terms of the planning permission, associated planning obligations or, indeed, market conditions. Drane (2013) pointed out that sites that appear static to the naked eye may, in in fact, be the locus of substantial development-related activity such as re-zoning and transfers of ownership. Strategic behaviour by developers is also possible. There are anecdotes of landowners agreeing s106 agreements without intending to commence development or to sell land in order to secure the principle of development on the site or to avoid higher levels of planning obligations. This is sometimes termed in the development industry as 'banking a permission': the implication being that the planning permission is 'deposited' until it needs to be 'drawn down' at a later date. Similarly,

although there may be further issues to be addressed before construction can commence, a developer or landowner may need to secure planning permission in order to meet the terms of funding or option agreements.

Another potential factor is that a proportion of stalled sites have become part of the asset base or 'land bank' of house-building companies. Land banks serve a dual purpose: to provide a resource for the construction of new real estate and to provide a portfolio of assets for land investment. There is a longstanding literature on the issue of land-banking by major house building companies (see White, 1986). As early as 1974, it was pointed out in the *Investors Chronicle* that "[d]espite appearances, house-building is only partially the business of putting up houses. The houses are the socially acceptable side of making profits out of land appreciation". More recently, focussing on their business models, whilst the Callcutt Review (2007) identified the land inventory needs of the house-builders to ensure a supply of developable land, it also noted significant variation in the extent of landholdings. With an average holding of 2.8 years supply of land, one major house-builder held over six years' supply (Callcutt Review, 2007). For some house-building companies there may be a conflict between their different roles as land investment companies and house-building companies. However, it is important not to overplay the relative significance of this factor. Data (provided by Savills) in the Callcutt Review relating to the proportion of land with planning permission owned by house-builders suggested that they owned a relatively small proportion - less than 10%. Clearly, before physical construction can commence, much of the land will still need to be transferred to housing developers.

A change in the level of risk averseness may mean that certain types of project are more liable to become stalled than others. Due to their higher risk, sites where it is difficult to develop in phases are more likely to be stalled. In a report for the Office of Fair Trading in 2008, KPMG highlighted such problems with apartment developments with the developer exposed to "capital lock-up linked to inability to phase sales… and greater exposure to uncertainties in demand" (KPMG, 2008, 8). At the nadir of the economic downturn, in a report for the Homes & Communities Agency, DTZ (2009) concluded that all high density urban development involving development comprising almost entirely of flats was not viable anywhere in the country. In contrast, low density, multi-building schemes are fairly straightforward to phase; the developer retains real options to stop and/or change the development as it is progressing. Such schemes can begin to finance themselves and, therefore, risks from sharp changes in market conditions are much lower. In contrast, for single building, high density schemes, the developer can lose numerous options to re-negotiate the terms of the planning permission and to change the pace of development with the result that the development risks are significantly increased. In a risk-averse market environment, projects with high suspension costs may

be more prone to stalling due to market conditions that have produced a substantial increase in the developer's risk premium rather than to prices or planning obligations.

Whilst there has been little academic literature focussed specifically on stalled sites, there is an established body of work on *vacant* sites. Motivated by policy concerns about inner city decline, there have been a number of papers by David Adams with collaborators, investigating the effect of ownership constraints on the operation of urban land markets (see Adams, Baum and McGregor, 1988 and Adams, Disberry, Hutchinson and Munjoma, 2001). This work has suggested that ownership problems and behaviour can undermine the standard neo-classical assumptions that land supply responds to market signals to produce development at the right time, in the right place and at the right price. It found that urban sites may not be brought forward for development because of a combination of passive ownership (encouraged by low holding costs), fragmented ownership rights and speculative behaviour. Prior to the global financial crisis, in order to promote land supply in what was an increasingly buoyant housing market in the UK, Barker (2004) proposed amendments to the property taxation system to encourage the more rapid re-use of urban sites.

In addition, following Titman (1985), there is a body of US literature more formally analysing the behaviour of vacant site owners from a real options perspective. Essentially, owners' decisions on whether to sell a site to a developer are analysed in terms of weighing the opportunity costs associated with keeping the site vacant against the expected gain from delaying sale until more favourable market conditions prevail. This body of work suggests that the value of the call option to wait (i.e. hold back land from development) increases in more volatile or uncertain market conditions and so may explain, at least in part, why sites appear increasingly stalled at present. More recent work on the optimal phasing and inventory issues in real estate development also suggests that, for owners of large and/or multiple sites, it can be economically rational to phase the release of land incrementally over time (Hughen, Ott and Read, 2012). This type of strategic behaviour by landowners has clear links to the controversy concerning 'land hoarding' by house-building companies discussed above.

Although it is specific to the current English planning policy environment, a further factor that may be explain the lack of progress on some sites is the option offered to landowners by local planning authorities, to revisit and renegotiate planning agreements. In order to kick start stalled development sites, government guidance has been issued on the review of schemes that have stalled for 'financial viability' reasons (HCA, 2012). The guidance suggests that local planning authorities 'review the degree of flexibility' around delivery of planning components, namely land use, design, master plan, infrastructure and housing provision and carbon reduction. Essentially it encourages local authorities to look again at the planning requirements of these stalled schemes. The Government has also, via the

Growth and Infrastructure Act, inserted new sections into the 1990 Town and Country Planning Act which introduce review and appeal procedures in relation to affordable housing requirements that have already been settled in extant s106 agreements (DCLG, 2012). These measures, when coupled with a general encouragement to voluntarily re-visit previously agreed planning obligations, open up the prospect of open-ended renegotiation of not only planning obligations but other previously agreed planning requirements too and this can, of itself, stall developments.

In summary, it is clear that the sharp economic downturn has affected the financial viability of many development projects that have managed to navigate the planning system. However, despite the current political salience, surprisingly little systematic research has been carried out on the type, location and number of stalled sites. If the policy objective to increase housing supply is to be achieved, there is a limited evidence base on which to construct related policy.

3. Data and Method

The research utilises two sources of information relating to sites with planning permission that are perceived to be stalled: a national database of construction projects supplied by Glenigan and a case study analysis of specific stalled sites. This mixed methods approach was conceived as a way to build both a broader picture of the prevalence of stalled sites (at the national scale) and to provide an opportunity to 'drill-down' to explore the specific factors stalling schemes at the individual site level. As Fellows and Liu (2008: 28) note, combining qualitative and qualitative approaches in this way can provide a "multi-dimensional view of the subject, gained through synergy".

National database

Information on schemes that are in the 'development pipeline' is collected and maintained by Glenigan, a private sector provider of construction and property development-related data including planning applications, permissions, construction tenders, contracts and completions. For the purposes of this project, Glenigan supplied a snapshot of data that described the nature, scale and location of 'stalled' development schemes in England as at July 17, 2012. It comprises 1,411 sites totalling 75,534 units and, according to Glenigan, constitutes an estimated £8,959m of Gross Development Value as at July 2012. Of the 1,411 sites, the majority (1,217) involve new developments. Of the remainder, 46 are extensions (to existing buildings) and 148 are refurbishments. The dates of the planning applications relevant to the schemes range from August 2000 to the March 2012. All are classified as 'large' by Glenigan; meaning that they relate to developments other than changes of use and minor works such as extensions. Permission dates range from 06/07/01 to 29/05/12 (four records did not have permission dates).

Case Studies

The purpose of the case studies was to focus on specific stalled projects in order to examine in more depth the rationales and situations of site owners. In order to ensure projects from each region and representing different types of development were captured, it was decided that targeting a total of approximately 20 case studies would provide an adequate sample to obtain evidence of the factors that can stall development. Although this is a small number relative to the total number of stalled development sites across England, it nonetheless encompasses a broad range of sites in terms of location and size. This diversity was also reflected in the composition of the schemes. For example, a number were large, urban extensions incorporating community and commercial facilities as well as large residential elements. At the other end of the scale, there were a number of sites with planning permission for a few dozen dwellings.

Similarly, a diverse range of planning obligations had been agreed. It is important to point out here that the aim of the research was to provide an in-depth evaluation of each site rather than to generate a sample that could be used to make inferences regarding significant differences between different categories of site. Thus, whilst an attempt was made to cover a range of value areas and size of schemes, it is not possible to make any inferences about differences in the role of planning obligations between the categories of site. Put simply, the case studies will not provide answers to questions such as "Are planning obligations having different types of impact in large/low value/mixed use sites?" This, in our view, does not devalue the usefulness of the data provided by a selected range of case studies. Indeed individual and unusual or unique cases may reveal much about general processes, whether they are 'scaled-up' or not (see Sayer, 1992, Ettlinger, 2009). However, we do acknowledge that care must be taken not to over-generalise when abstracting results from case studies (Flyvbjerg, 2001, Yin, 2008). The sample of stalled sites was purposively generated from a combination of sites suggested by local planning authorities, developers, a project advisory group and the personal knowledge of the research team. The composition of the sample was therefore not based on random sampling but rather reflected the willingness of individuals to put forward examples to the research team.

We divided the country into three broad value areas:

- 'High' – London and South East
- 'Medium' – South West and East of England
- 'Low' – East and West Midlands, Yorkshire and Humberside and North East and North West

As each case study was submitted, we reviewed whether it was within a local authority which was of a much higher/lower value than the majority of local authorities in the value band. If this was the case, drawing upon DCLG data on local authority house prices, we allocated the case study to a more appropriate value band. Schemes were defined as being either large (100 dwellings or more) or small (less than 100 dwellings). Table 1 summarises the sample of proposed case studies. It shows the total number of dwellings in case study schemes for each house price band, in three types of location – urban, suburban and urban extensions (typically a large scale greenfield development on the edge of an existing settlement). For each value band and location type (e.g. urban in the high house price band), the table sets out the total case study schemes in the sample.

Table 1: Potential proposed case studies by location and value area (*number of dwellings in italics*)

	Urban	Suburban	Urban extension	**Total schemes**	***Total dwellings***
High house price	*3,600*	*1,600*	*10,500*	**43**	***15,700***
Large	9	2	4	15	
Small	18 (in 6 LAs)	10 (in 3 LAs)		28	
Medium house price	*3,500*	*2,400*	*15,000*	**36**	***20,900***
Large	7	1	9	17	
Small	8	11 (in 5 LAs)		19	
Low house price	*3,900*	*700*	*13,500*	**59**	***18,100***
Large	12	2	7	21	
Small	26	12		38	
Total schemes	80	38	20	138	
Total number of dwellings	*11,000*	*4,700*	*39,000*		*54,700*

The initial 'convenient' sample of stalled sites set out in table 1 shows a number of characteristics. 43% of all stalled sites suggested by local planning authorities etc. are in low house price regions compared with 31% in high price regions and 26% in medium price regions. However, the incidence of dwellings in stalled sites is slightly different with fewer dwellings (33%) in the low price areas and more dwellings (38%) in the medium price area. Urban extensions account for 15% of all sites but 71% of all dwellings and ranged in size from under 1,000 units to more than 4,000 units. 28% of all dwellings in stalled sites are located in suburban areas with 58% in urban areas. Very few examples of stalled sites in London were identified. There were 11 non-residential stalled schemes: six of these were in high price areas, four in medium value areas and only one in low value areas.

From this initial sample of 138 suggested case studies, we obtained agreement for a detailed assessment from developers and local authority planners at 18 sites. Having gathered data on the permitted schemes, the assessment also involved semi-structured interviews with representatives from

developers/landowners and the local authority planning officer. The sites represent a spread of location types (urban, suburban, greenfield/urban extension) within each of the three value bands (low, medium, high) – broadly representative of their proportions in the sample of 138 schemes.

7 – high value areas
4 – medium value areas
7 – low value areas

Given commercial and negotiating sensitivities, we reassured the appropriate parties that no individual site or scheme would be identifiable in the research results. The interviews were mainly conducted by telephone during October and November 2012. Since a number of the interviewees expressed a preference for a telephone interviews, the vast majority of interviews were conducted by telephone rather than face-to-face. There did not seem to be any substantive difference in tone and content between the two approaches to the interviews. Two researchers were present at most of the interviews. Both interviewers took notes of the responses. Consistent with the semi-structured approach, the interviews were both informal and exploratory or open-ended in nature.

4. Results

Number, location and types of stalled sites

In terms of a national picture, Table 2 categorises the stalled developments according to their predominant land use (as assigned by Glenigan). Residential-led schemes account for 94% of all stalled projects and comprise nearly 72,000 dwellings, representing approximately three quarters of one year's supply the sites. These residential schemes are the focus of subsequent analysis. Table 2 shows that nearly two thirds of stalled residential schemes are apartment-led developments with houses and bungalows accounting for a third and specialist housing (student accommodation and sheltered housing) accounting for around 4%. This can be compared to dwelling completions in the 2012/13 which were 24% flats and 76% houses[2].

[2] DCLG Live Table 254, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/199190/LiveTable254.xls

Table 2: Sites in England with planning permission but no construction activity, July 2012

Predominant use	Number of sites	Number of dwellings		Average number of dwellings per site
Residential:				
Apartments, flats	735	44,972	*63%*	61
Houses, bungalows, chalets, luxury housing	499	23,771	*33%*	48
Sheltered housing, elderly persons homes, nursing homes	57	1,399	*2%*	25
Student accommodation	40	1,679	*2%*	42
TOTAL	1,331	71,821	*100%*	
Commercial, industrial and other:				
Shopping centres, shops, supermarkets	13	1,011		
Shipping terminals, ports	1	774		
Offices	8	736		
Residential outlines	2	364		
Hotels / motels	7	283		
Warehousing, storage, workshops, light industrial	6	213		
Homes and hostels	6	96		
Misc	37	190		
TOTAL	80	3,667		

Source: Glenigan data set

Ignoring the permission granted for one site on 07/12/01, the residential-led stalled developments received planning permissions between 29/02/04 and 29/05/12. Figure 1 shows the numbers of currently stalled schemes categorised by the date of planning permission. Not unexpectedly, a small proportion of stalled sites (in July 2012) were granted planning permission before the global financial crisis. In 2008-9, there was a significant increase in the numbers of sites stalled that were granted permission in these years. This shift has continued for 2010 and 2011. However, given that the planning permissions are relatively recent, a proportion of the non-implemented planning permissions may be due to 'normal' delays in construction procurement, execution of sales to house-builders etc. rather than any fundamental problems with the schemes. It is also possible that a proportion of planning permissions granted in 2010 and 2011 were renewals or changes to existing schemes.

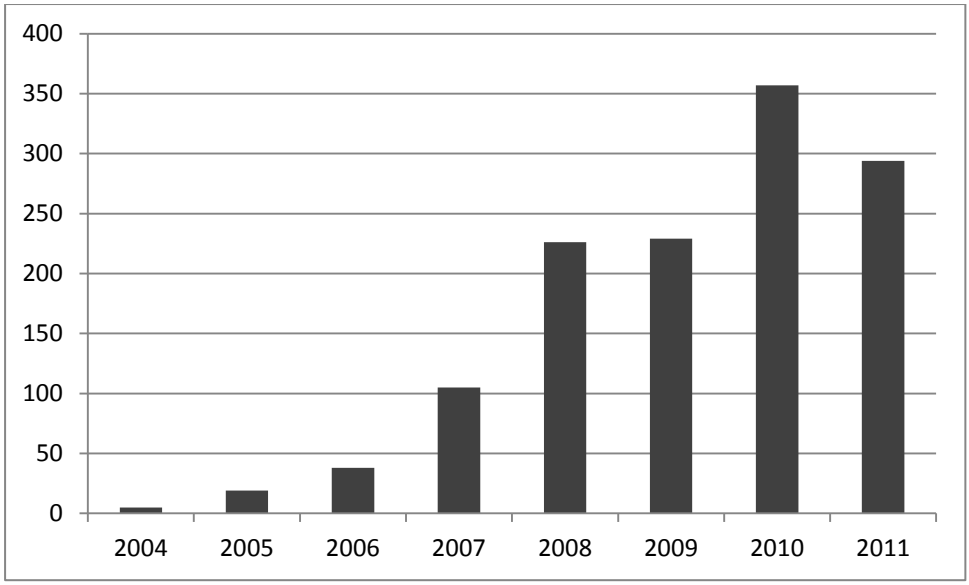


Figure 1: Number of unimplemented planning permissions in England, as of July 2012 (categorised by year planning permission was granted)

Stalled sites that were granted planning permission between October 2010 and September 2011 are classified by region in Table 3 and compared to the number of major permissions granted in the same year. As a proportion of all major decisions, the region with the largest percentage of stalled sites is the North East (17%), the region with the lowest median house price. It is notable that the proportions for all other regions are fairly consistent, ranging between 5% and 8%. Broadly, we do not find significant regional differences in the propensity for sites to stall.

Table 3: Stalled sites as a proportion of major residential planning permissions, by region (2010/11)

Region	Number of stalled sites	Major residential decisions (year-end Sept '11)	Number of stalled sites as a percentage of major residential decisions
Unknown	5	-	-
East Midlands	33	418	*8%*
East of England	33	482	*7%*
London	40	435	*8%*
North East	15	191	*17%*
North West	52	533	*6%*
South East	51	662	*5%*
South West	43	455	*7%*
West Midlands	41	395	*8%*
Yorkshire and The Humber	58	481	*7%*
Grand Total	371	4,052	

Source: DCLG (Live Table P136) and Glenigan database

The residential sites were linked to the UK Postcode Directory using the postcode as the common identifier. Not all sites had a valid postcode (there were 128 mismatches). Table 4 shows that most of the stalled sites are located within urban settlements with a population of 10,000 or more and in a less sparsely populated hinterland. This rather vague definition comes from the UK Postcode Directory and is based on an Ordnance Survey classification but it illustrates that the majority are located on brownfield sites. Because brownfield sites typically have a higher existing use value than greenfield sites and are more likely to be apartment schemes, they tend to be more marginal in terms of financial viability. It is therefore not surprising that most of the stalled sites are brownfield.

Table 4: Stalled sites by settlement type

Geographical location	Units		Sites	
Urban settlements with a population of 10,000 or more and the wider surrounding area is *sparsely* populated	50	*0%*	4	*0%*
Small town and fringe areas category and the wider surrounding area is *sparsely* populated	93	*0%*	7	*1%*
Village and the wider surrounding area is *sparsely* populated	199	*0%*	11	*1%*
Hamlet or isolated dwelling and the wider surrounding area is *sparsely* populated	86	*0%*	5	*0%*
Urban settlements with a population of 10,000 or more and the wider surrounding area is less *sparsely* populated	51,519	*72%*	969	*73%*
Small town and fringe areas and the wider surrounding area is *less sparsely* populated	2433	*3%*	91	*7%*
Village and the wider surrounding area is *less sparsely* populated	2,450	*3%*	68	*5%*
Hamlet or isolated dwelling and the wider surrounding area is *less sparsely* populated	1,076	*1%*	38	*3%*
Scotland/NI/Channel Is/IoM	919	*1%*	10	*1%*
No information available	13,040	*18%*	128	*10%*
Grand Total	**71,865**		**1,331**	

Source: Glenigan

It is expected that the level of house prices will also affect the propensity of development projects to stall. Dividing the 2010 median house price for each of the 326 unitary authorities into quintiles and summing the number of stalled units in each reveals a negative correlation between average house price and number of stalled units.

Table 5: Median house prices and stalled sites in England

Quintile	2010 median house price (£)	Number of local authorities	Number of stalled dwellings, July 2012	Percentage of total
1	73,000 – 132,000	65	24,536	*35*
2	132,000 – 160,000	65	14,248	*20*
3	160,000 – 195,000	65	11,038	*16*
4	195,000 – 245,000	65	11,544	*16*
5	245,000 – 750,000	66	9,212	*13*
Total		326	70,578	*100%*

Source: DCLG (Live Table 582) and Glenigan

Table 6 categorises the local authorities in England by the price per hectare of 'bulk' housing land (land parcels in excess of two hectares) as estimated by the Valuation Office Agency (2010 values). Against this appears the number of stalled dwellings in each category. Although it was not possible to match all stalled site locations to local authorities (the mismatch rate was approximately 9%), it is clear that the majority of stalled residential development sites are located in the low land value areas. Figure 2 shows the location of the Glenigan stalled sites. The size of the circles is proportionate to the number of units proposed at each site. Underneath the circles is a choropleth map showing the price per hectare of 'bulk' housing land (land parcels in excess of two hectares) as estimated by the Valuation Office Agency (2010 values). The map overlay reveals the prevalence of stalled residential development sites in the north of England.

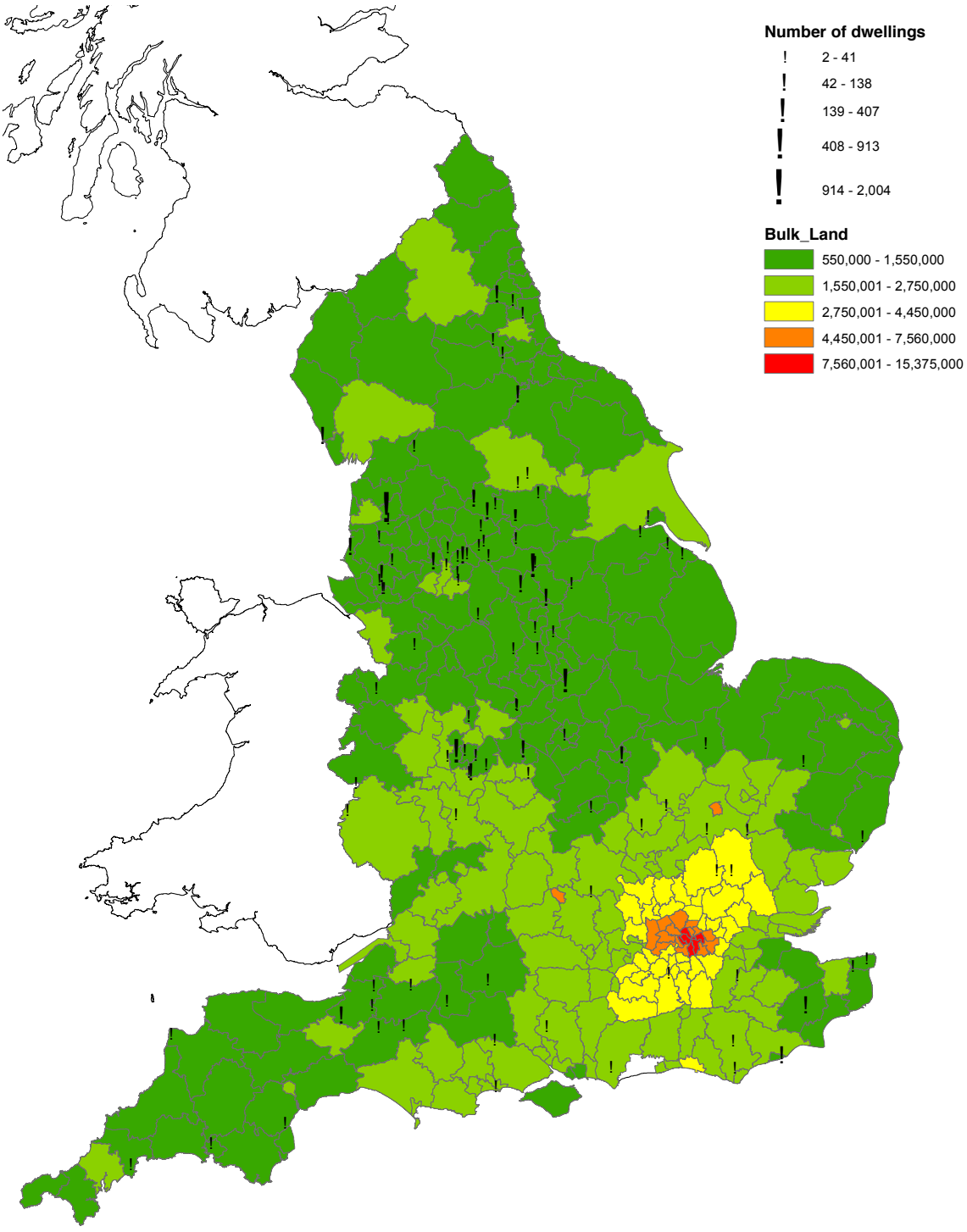
Table 6: Housing land values and stalled sites in England

Quintile	2010 'bulk' housing land values (£)	Number of stalled dwellings, July 2012	Percentage of total
1	550,000 – 1,550,000	37,628	*59%*
2	1,550,001 – 2,750,000	11,860	*18%*
3	2,750,001 – 4,450,000	3,095	*5%*
4	4,450,001 – 7,560,000	8,125	*13%*
5	7,560,001 – 15,375,000	3,486	*5%*
Total		64,244	*100%*

Source: DCLG (Live Table 582) and Glenigan

Therefore, aside from the North East no major *regional* variation was found in the propensity of sites to be stalled. However, and perhaps not surprisingly, Tables 5 and 6 suggest that a key issue is local house prices and land values.

Figure 2: Location of stalled sites in relation to the value of housing land



Source: Adapted from Glenagin data?

Table 7 shows that, for residential development projects of ten or more dwellings that were approved in the ten-year period from January 2003 to December 2013, approximately two thirds of those which started within six months were housing rather than flats. This proportion drops as the period between approval and start of construction lengthens to the point where 44% of schemes started after a two-year delay are flats.

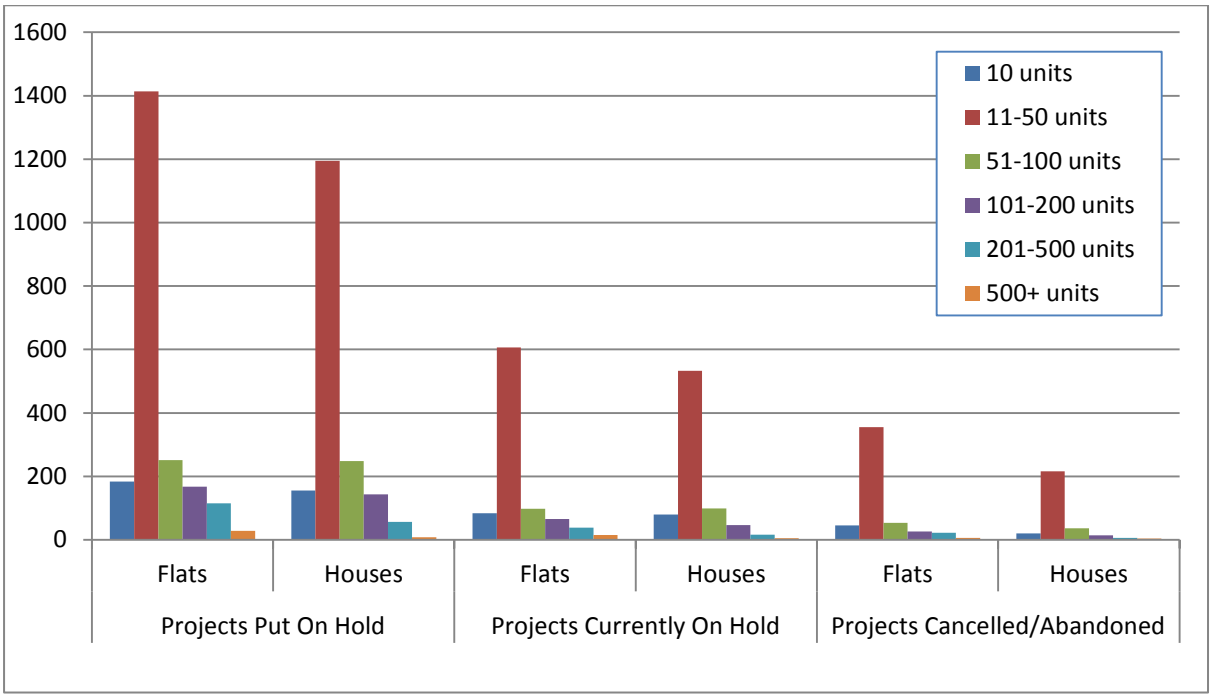
Table 7: Starts by Dwelling Types 2003-2013

Period between approval and start	Scheme type	Number of units	Number of schemes
Less than 6 months	Flats	238,584	4,127
	Houses	453,221	7,265
6 - 12 months	Flats	67,610	1,149
	Houses	98,482	1,597
12 - 24 months	Flats	50,718	715
	Houses	53,897	837
More than 24 months	Flats	30,374	403
	Houses	40,062	519

(Source: Glenigan)

Construction began on schemes totalling 100,000 units per annum on average over the ten-year period (note that this figure excludes schemes of less than ten units). Concentrating on schemes that have stalled, Figure 3 illustrates, in the first two sets of columns, the number of flat and housing schemes that were put on hold at some point during the ten-year time period. The second two columns show the number of schemes on hold at the end of the period and the last two columns show the number of schemes that were either cancelled before construction started or abandoned at some point after construction had begun. The prevalence of flat schemes is clear to see, as is the small to medium sized schemes of 11 to 50 units. It should be noted, however, that large residential schemes such as urban extensions may involve several planning applications and construction tendering processes. Consequently, the gradual 'building out' of these large developments may appear as a series of smaller schemes in the Glenigan database.

Figure 3: Stalled, abandoned and cancelled residential development, 2003-2012 (Source: Glenigan)



Case study results

Turning to look at the more site-specific scale, the 18 case studies can be broadly categorised as follows (the definitions have been devised for this study):

- Large-scale strategic greenfield development (1,000 or more dwellings) 4
- Significant greenfield scheme with 100 or more dwellings 4
- Small greenfield scheme (99 or fewer dwellings) 2
- Large urban redevelopment/regeneration site (100+ dwellings) 3
- Small urban redevelopment/ regeneration site (99 or fewer dwellings) 4
- Urban infill – 'clean site' 1

The greenfield schemes are similar in character, typically taking the form of urban extensions - housing developments adjoining existing settlements. Depending on their scale, they include different types and levels of transport provision, community and other facilities as well as dedicated open space. The previously developed sites, on the other hand, are more diverse. They include heavily contaminated and difficult-to-develop former factory sites in dense urban (city centre) locations. There are also examples of small (e.g. for 50 dwellings) redevelopment schemes where demolition of an existing building (e.g. a former pub or hotel) is part of the planning permission and urban infill

schemes where little is required to bring the site forward for development and development conditions are benign.

Scale and Nature of Planning Obligations

Across the case studies, a diverse range of planning obligations[3] had been agreed. Housing developments above a certain size must include a proportion of affordable dwellings (social, shared equity or affordable rented housing). Only one scheme above the local site size threshold had agreed no provision for affordable housing, and this was on viability grounds. Where affordable housing was sought, the amount varied, although not as much as expected given the range of market values and development conditions found in the case studies.

While sample sizes were too small to draw any statistical inferences, the expected pattern of higher levels of affordable housing in higher value areas was found. In the high and medium value areas, seven out of ten s106 agreements required between 20% to 30% of the total number of units to be affordable with three over 30%, and the highest being 40%. In the low value area, 20% to 25% was the most common proportion although there was one scheme at 0% and one with a requirement for more than 30%. Planning obligations other than affordable housing were scheme-specific, depending on measures required to mitigate the impact of the development; the larger the scheme, the more diverse the requirements. These included the expected types of planning obligations; highways works, public transport and education contributions, community facilities, public art, play areas and recreation facilities, etc.

As well as variety in the make-up of the contributions required, the case studies varied in the amount of contribution per dwelling, as the following analysis illustrates:

- Small scheme/high value area - £3,700 per dwelling (no affordable housing – below threshold)
- Large scheme/medium value area – £13,000 per dwelling + 30% affordable housing
- Large scheme/high value area - £2,800 per dwelling + 35% affordable housing
- Small scheme/low value area – £3,000 dwelling + 25% affordable housing
- Large scheme/low value area - £1,800 per dwelling + 0% affordable housing

[3] These are agreed under section 106 of the Town and Country Planning Act and are therefore usually referred to as s106 agreements.

Scheme Histories

Although each site had its own particular 'journey' through the development and planning processes, there are some similarities in the time and effort required to achieve a planning permission. There were several examples of schemes that had taken over ten years from an initial allocation in a development plan to planning permission and at least one example of a scheme that has taken more than 20 years. It is perhaps worth briefly expanding on the latter as an illustration (perhaps extreme) of the ways in which planned development can be delayed. The site – an urban extension in a high value area – is under single ownership used as farmland. It was allocated for housing in a local plan in the mid 1980s as part of a major development area. Legal and site issues relating to utilities and road infrastructure development meant that the first planning application was not submitted until the late 1990s. Further disputes regarding emerging environmental regulation meant that this application lapsed and a second was submitted some eight years later. Then, in 2011, a new Local Plan was published which required a 25 per cent affordable housing allocation which was subsequently raised to 40 per cent. S106 heads of terms were agreed and a resolution to grant was made subject to detailed discussions regarding the S106 agreement, but then a legal issue arose regarding adjacent land. Following the market downturn, the local authority and landowner are currently renegotiating aspects of the s106 agreement. Construction has not yet started.

It is not possible to provide a simple analysis of the dates when the case studies were first 'promoted' for development since some schemes were allocated in a development plan and others were 'windfall sites'; the first time the latter are identified to the planning authority is as a planning application. There can also be complications where the extant planning permission is not the first permission granted on the site. Nevertheless, Table 8 groups the case studies according to the length of time between first securing planning permission and the case study interviews (2012).

Table 8: Length of time since (outline) planning permission was granted[4]

Number of years	Number of case studies
Less than 2	3
3 to 5	8
6 or more	3
Not yet permitted[5]	3

The majority of the case studies had been granted planning permission within the last five years but three had older planning permissions. It is important to bear in mind that some planning permissions

[4] One case study was composed of a series of small schemes, each with variable planning histories.
[5] In all these cases, there was a resolution to grant permission but the s106 agreement was still being negotiated.

that were granted relatively recently may in fact relate to an application first submitted several years earlier.

Reasons for stalled schemes

One of the objectives of this research was to investigate the extent to which the level of planning obligations is stalling development. This requires a focus on particular sites where the developer has obtained planning permission, signed an s106 agreement but is currently failing to implement the permission. The implication is that a change in market conditions has rendered a once viable development now financially unviable. Identifying causation in this type of exercise can be difficult and overall the interviews revealed a complex picture. It was notable that for the 18 case studies, 41 reasons for non-implementation of the planning permission were recorded. This indicates that multiple factors were affecting individual sites. Even isolating as opposed to measuring the contribution of a factor to an observed outcome can be problematic. The results of the interview survey reveal the types of complications that can emerge. In order for a site to be 'shovel-ready', a number of changes may need to occur. In terms of project implementation, the market may need to improve through increases in prices and turnover. Project implementation may require a re-negotiation of the planning permission in order to change the scale and mix of the development and also, in some cases, to reduce the level of planning obligations. In addition, there may be issues relating to the site or with landowners that need to be resolved before a planning permission can be implemented. The interviews reveal examples of all these types of issues and their consequent impact on the negotiation of planning obligations.

An analysis of the case studies shows that changed market conditions are the key reason for sites becoming stalled. However, it is not the only reason and there is usually a combination of factors determining whether a site is stalled or progressing. Table 9 sets out the main reasons put forward for delays in bringing schemes forward (note that there could be more than one reason for each case study).

Table 9: Reasons for Case Study Schemes Becoming Stalled

Reason	No.
Market conditions	
Market values have fallen/sales rates generally down	10
Development finance difficult to secure	1
Low sales rates/ market change means that need a different mix of dwellings (e.g. replace apartments with houses)	3
General viability issues	
Generally a difficult scheme to make work (e.g. high abnormal costs/low values)	4
'Overpaid' for the site	2
Ownership issues	
Change of owners (and could lead to a completely new scheme)	2
Third parties with control over part of site/ consortium of developers and/or landowners failing to agree/ change in personal circumstances of landowner	3
Developer not actively pursuing development	
Waiting for upturn in market, have a better scheme nearby	6
Sought policy compliant permission but anticipated would not be viable	2
Other issues	
Third party actions e.g. unforeseen intervention by a utility	1
Complex scheme with long lead in times (usually, but not exclusively, large scale schemes)	4

The analysis confirms that changing market conditions is the primary reason for schemes becoming stalled in the period since 2008/09. Market values have fallen (*'house prices have dropped through the floor'* was a typical comment from interviewees) and, in line with price drops in some areas, price reductions of circa 15% were quoted by developers. But rates of sales have also fallen, for example, one interviewee indicated that current sale rates were about 50% of predicted rates pre-downturn. This can turn a previously implementable s106 agreement into something that cannot be delivered, as the following quote from a developer of a larger greenfield site illustrates, '*the agreement was fair and policy compliant but it was assessed in a rising housing market…'*. When the developer/landowner is faced with the changed market circumstances, they have to decide whether to proceed or to, as one interviewee put it, he was '*waiting for the market to improve*'. This can be equally true for the developer (unwilling to risk the expenditure on getting a scheme started) and the landowner (not willing to reduce the price they expect to receive for their land).

However, it was also acknowledged that it was not possible to separate the causal factors neatly and that, in a falling market with reduced sales volumes, a reduced level of planning obligations (especially affordable housing) could improve viability sufficiently to get a scheme underway. Putting aside the problem of high levels upfront infrastructure costs often required to progress large-scale developments, another factor leading to some sites stalling relates to land ownership. This can involve a third party with control over a vital piece of land and/or issues to be resolved within a developer and/or landowner consortium. For instance, in two of the case studies, although planning permission had been granted, the sites were occupied and trading as businesses (one was a hotel and the other a car showroom) so they could not realistically be construed as 'shovel ready'. On one of

the larger sites, the developer decided that it would be preferable to agree planning obligations and outline consent as soon as possible due to imminent changes in the policy regarding planning obligations. Without any intention to implement the agreed planning consent, the developer did not want to delay obtaining the principle of consent on the site and risk potentially more onerous obligations being imposed by planning officers at a later date. In addition, there were four landowners involved in the scheme and it was difficult to get them all to agree to market the site when land prices were falling. On another large scheme, land ownership issues were still being resolved and the developer did not control all land. Compulsory purchase procedures and negotiations with other landowners were underway. It was also clear in some of the case studies that the existing consent would not be implemented and would have to be re-negotiated.

Overall, it was clear that the shift in market conditions had created a range of reactions amongst landowners (usually not house-builders) with the result that consents were unlikely to result in construction activity in the short-term.

5. Conclusions

Albeit at a different scale, the problem of stalled sites is akin to urban regeneration interventions that aim to overcome risk aversion and economic viability problems associated with (re)development in weak economic conditions. With a national rather than a local focus, addressing the housing supply crisis is viewed by the government as part of a wider strategy aimed at 'regenerating' the macro-economy. A range of stimulus measures has been used, and continues to be introduced, to encourage and enable the house-building sector to increase output. Implicit in the attempts to subsidise stalled projects is the presumption that projects are stalled because they are not financially viable. Hence, through programmes such as Get Britain Building, the Growing Places Fund and the Local Infrastructure Fund among others, public funds are offered to developers to pay for infrastructure costs, to improve viability. In addition, local planning authorities are pressed to re-negotiate and reduce levels of planning obligations.

While there is a growing raft of policy interventions, policy *formation* seems to be taking place in an evidential vacuum; essentially the type, nature and causes of stalled projects seem to be poorly understood. At the macro-level, the empirical evidence on the location and type of stalled projects suggests that financial viability is likely to be the primary driver. Stalled projects are more likely to be found in low house value areas and/or higher risk projects and/or projects in sectors that have experienced the largest house price falls. The high proportion of stalled projects in apartment developments is a clear finding in this context. Indeed, claims that use broad-brush figures about the number of units with planning permission do not take into account the fact that a large proportion of

schemes are unlikely to be viable. The overarching shifts are that house values have fallen in many areas, developers' and lenders' risk aversion has increased and, as a result, once viable financially feasible projects are no longer feasible. At current market prices and taking into account development costs, housing development is not viable on a substantial proportion of what is often defined as *housing land supply*.

Furthermore, the case study research suggests that the reasons for many stalled projects may be more nuanced than simply viability. For operational reasons, house-builders need to maintain an inventory of sites in order to manage their workflow. However, some house-building companies may be operating as land investment vehicles as well as house-building businesses. Nevertheless, problems with stalled projects cannot be wholly attributed to house-builder behaviour. Previous research has suggested that house-builders own a small proportion of stalled sites with planning permission and a number of our case study sites were not owned by house-building companies. Other landowners seem to be exercising their options to delay the sale of their sites. Although a site may appear inactive, it is clear that the lack of physical development may be due to ownership conflicts, problems of land title, land transfers, etc. In addition, we find evidence of landowners 'banking' permissions in order to protect themselves from changes in policy. For this type of scheme, planning permissions need to be re-negotiated before development can commence.

Whilst obtaining planning permission may be a necessary condition for development to take place, it is often not a sufficient condition and it is unlikely that a significant proportion of stalled sites, even if financially viable, could be considered 'shovel-ready'. A better understanding of the typical events that occur after a site has obtained planning permission is needed before we can understand the key barriers to the implementation of a planning permission. Although policy is concentrating on viability as a root cause of stalled sites, the reality is not so straightforward; a range of factors can cause a site to be stalled and causality must be understood for policy interventions to be effective. Macroeconomic conditions in the capital and labour markets; housing demand and supply at national, regional and local levels; the poorly-understood trade-off between house-building and land speculation; and site-specific factors such as land assembly, sunk costs, infrastructure requirements etc., all require further investigation.

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