

Europe Economics

How to Increase Competition, Diversity and Resilience in the Housebuilding Market?

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Executive Summary

It has been widely reported that England is suffering from a chronic undersupply of housing. The 2004 Barker Report recommended building 245,000 private sector homes per year to keep house price inflation at the (then) European average of 1.1 per cent per annum. However, according to Shelter's analysis, between 2004 and 2012 there has been a cumulative shortfall in England of 1,154,750 homes. Shelter estimates that around 250,000 new homes would need to be built each year to keep pace with current and future demand, not including any catch up for past under-supply. Many commentators have reported on the unresponsive nature of housing supply; evidence suggests that UK house price trends reflect a lack of supply of housing and a weak responsiveness of supply to prices.

There are many issues that need to be addressed in order to improve the responsiveness of housing supply. One factor that is often cited is competition: the Barker Review of housing supply, for example, noted that housing supply responsiveness is potentially affected by the degree of competition in the residential construction industry. Shelter has commissioned Europe Economics to provide analysis in support of policy recommendations which seek to address some of the barriers to growth faced by existing firms and barriers to entry for potential entrants, with the ultimate aim of increasing competition, diversity and resilience within the housebuilding sector.

The housebuilding sector has become increasingly concentrated in recent years with firms that build over 2,000 units per year accounting for around 50 per cent of housing starts. While in some instances economies of scale mean that these larger firms are able to develop larger sites at a lower average cost, the dominance of this small number of large firms can potentially drown out smaller firms and decrease competition, which may have longer term consequences for the sector, with regard to the sustainability and resilience of supply. Key barriers to entry and growth that have been widely cited by the industry, and have to some extent been reflected in policy making, include a lack of access to permissioned land and a lack of access to finance (notably for SMEs who are generally entirely reliant on bank loans).

In order to address the unresponsive nature of housing supply, six potential policies have been developed that centre on alleviating key barriers faced by housebuilders. Some of these options are likely to be more beneficial to SME builders by addressing barriers to growth and entry, such as problems associated with land acquisition, finance and procurement. Others are likely to have more pronounced effects on larger housebuilders, for example by increasing incentives to build out sites faster.

	Policy	Impact	Average additional units per annum	
1	Introduction of diversity of supplier guidelines or rules in procurement policy for the HCA as it looks to bring surplus public sector land back into use.	Would increase diversity and choice within the sector, resulting in a more responsive supply in the longer term	Increase in supply of 40,000 homes over 10 years	4,000
2	Assembly of sites owned by the public sector to create a property portfolio for LA pension funds	Would remove the sales risk of housebuilding for contractors and could result in net additions where LAs had not planned to build otherwise	Increase in supply of 24,000 homes in the short- to medium-term (though these are not necessarily <i>net</i> additions)	2,400
3	Introduction of a stronger principle of avoiding the creation of house price cycles through policy	Faster, early build-out rates which may have lasting effects as reduced house price volatility improves responsiveness of supply	70,000 additional homes built in the first three years by SMEs (though this would be offset by reductions in volumes in subsequent years)	23,000
4	Creation of a special administration regime for “zombie housebuilders” whereby the Crown reasserts its fundamental ownership of the land if a housebuilder becomes financially distressed (e.g. insolvent)	Build out of land held by current “zombie firms”. Future downturns would be well served as land held by the next tranche of zombie firms is made available by the regime, allowing for a more responsive supply	Up to 36,000 additional units over 2-3 years	12,000
5	Introduction of the relevant change of use taxation as soon as planning permission is granted	Faster, early build-out rates as a result of increased cost of holding undeveloped land	Additional 33,000 homes built by SMEs in first 3-5 years	6,600
6	Government ensures that capital requirements reflect systemic risks associated with housebuilding	Potential to increase build-out rates, as finance becomes more readily available, reducing a key barrier to growth and allowing a more responsive supply	Over a 10 year period, additional 125,000 homes built by SMEs and 190,000 homes built by larger firms	31,500

Increasing competition and diversity into the housebuilding market is a necessary but not sufficient goal to increasing the responsiveness of housing supply. However, it is vital to the long term resilience of the market and ensuring developers respond to house prices and other factors, such as expected improvements in planning policy.

Whilst there may be merit in all of the options that have been analysed, and while some options may have the greatest impact if used in conjunction with other options, at an individual level some of the policy options considered are likely to have a greater benefit than others.

In our view the most important policy option is Option 3, i.e. introduction of a stronger principle of avoiding the creation of house price cycles through policy. While this may be considered to be a bit of a “vanilla” option, we believe that it is fundamental to address this issue if we are to see a more positive supply response. Focussing policy on more niche aspects of the market may yield some benefit, but until the impacts of policy on house price volatility are addressed, we are likely to see an asymmetric supply response.

1 Introduction

This report on increasing competition, diversity and resilience in the housebuilding market has been prepared by Europe Economics for Shelter. It presents a number of different policy recommendations aimed at reducing barriers to entry and growth in the market, with a focus on fostering a housebuilding market which is more responsive to factors such as house prices.

In conducting this work we have drawn on a range of existing literature as well as engagement with a number of representatives from trade associations which represent different parts of the sector and policy experts who have written extensively in this area. We thank all those we spoke to for their feedback and comments.

Background to the study

Shelter's invitation to tender set out the background to this study as follows:

"The UK faces a large undersupply of housing and it has been decades in the making. After reaching its peak of around 400,000 in the late 1960s, housing completions in the UK have fallen to around a quarter of that in recent years. As the supply of housing has decreased but the demand has continued to rise, the undersupply of homes is one reason house prices have increased at a very fast rate since the 1970s and have continued to ratchet up despite market crashes.

"One of the key reasons housing completions hit the peak in the late 1960s was the level of investment by the public sector. Since the 1970s, the level of financial involvement by the state has reduced and the emphasis has been put on to the private sector and the market to deliver the necessary number of homes. The UK needs around 250,000 more houses each year but current completions are less than half of that. If the private sector is continued to be the preferred mechanism for housing delivery, we need to ensure the market works as efficiently as possible.

"One possible method is to increase the competition and diversity within the housebuilding market. With those developers who build more than 2,000 units per year accounting for over 50 per cent of completions, the market is seen to be concentrated. Economies of scale often mean that smaller developers cannot obtain the key inputs that are required for development such as land and finance and find it difficult to meet obligation costs. Furthermore, external shocks – such as the financial crash – have disproportionately hurt smaller developers as they couldn't absorb these costs.

"Theoretically, the market, developers and the economy could feel the benefits of increasing diversity and competition. The benefits to the market could include increased skills, larger labour market, increased completions and a more diverse offer of produce while the benefits to the economy may include increased supply, increased product offer, greater employment, increased resilience to economic shocks and greater confidence in the industry."

Scope of the report

This report sets out a number of policy recommendations which seek to address some of the barriers to growth faced by existing firms and barriers to entry for potential entrants. The focus of our study is on potential solutions to the aforementioned undersupply of homes (with respect to competition and barriers to entry and/or growth), rather than the causes of the problems. As such, we draw upon existing literature to demonstrate the problems in the market, namely that there is a shortage of new housing (in general) and that supply is unresponsive (notably to rising house prices). This is set out in more detail in the next section.

The nature of the UK's housing market is complex and is not limited to new housebuilding. We recognise that there are no 'silver bullets' to ensure that more homes are built in response to the general shortage of

new housing. Nonetheless, we believe that there are aspects of the market that could be improved through policy initiatives which could help to alleviate some of the constraints on the market. A key area, which has been widely cited as an area for reform, is the planning process. The Government is committed to a radical reform of the planning agenda giving new powers to local councils, communities, neighbourhoods and individuals. As such, our policy recommendations do not focus on aspects of planning policy.

Structure of the report

This report is structured as follows:

- Section 2 provides an overview of the nature of the problem that we face;
- Section 3 highlights different types of policy that could be, and have been, implemented to address the housebuilding supply response;
- Section 4 then presents analysis of a shortlist of options; and
- Finally, section 5 sets out our policy recommendations.

2 Nature of the Problem

2.1 Undersupply of Housing

The Calcutt review noted that England's housebuilding industry is in shape to deliver the homes we need for future generations and is capable of delivering 240,000 homes a year by 2016. According to the review, land is key to housing delivery, and given sufficient land (and subject to the review's recommendations), the industry and its supply chain has the capacity to meet the Government's objectives on volume, quality, environmental performance and affordability.¹

However, as reported in a recent Shelter publication, it is now widely accepted that England faces an urgent an under-supply of new housing.² The Institute for Public Policy Research (IPPR) notes that the long-term record of UK housebuilders' levels of output tells a story of consistent under-delivery:³

“Largely unresponsive to increasing demand, the supply of new homes has been found inadequate a long time before the recent financial crisis, but the crash has made the situation even worse. The value of land has risen faster than that of almost any other commodity over recent decades, so the development industry has come to prioritise trading land over building homes.”

The 2004 Barker Report recommended building 245,000 private sector homes per year to keep house price inflation at the (then) European average of 1.1 per cent per annum.⁴ However, according to Shelter's analysis, between 2004 and 2012 there has been a cumulative shortfall in England of 1,154,750 homes. England is now delivering fewer homes than in any peacetime year since the First World War, even before accounting for a much larger population and smaller households. As a result, according to Shelter's analysis, the country faces a large and accumulating shortfall between the demand for homes and the houses being built of approximately 100,000 to 150,000 homes a year.

2.2 Unresponsive Housing Supply

When commentators have reported on unresponsiveness of housing supply, this has typically been with reference to the price elasticity of supply, i.e. the relationship between change in quantity supplied and a change in price. The price elasticity of supply in any market would normally depend on a range of factors, including:

- The level of spare capacity a firm has;
- The level of stocks or inventories a firm is holding;
- The relative ease of factor substitution; and
- The time period over which elasticity is being measured.

Evidence suggests that UK house price trends reflect a lack of supply of housing and a weak responsiveness of supply to prices. As set out in the interim report for the Barker Review, the UK housing market is very

¹ The Callcutt Review of housebuilding delivery, November 2007

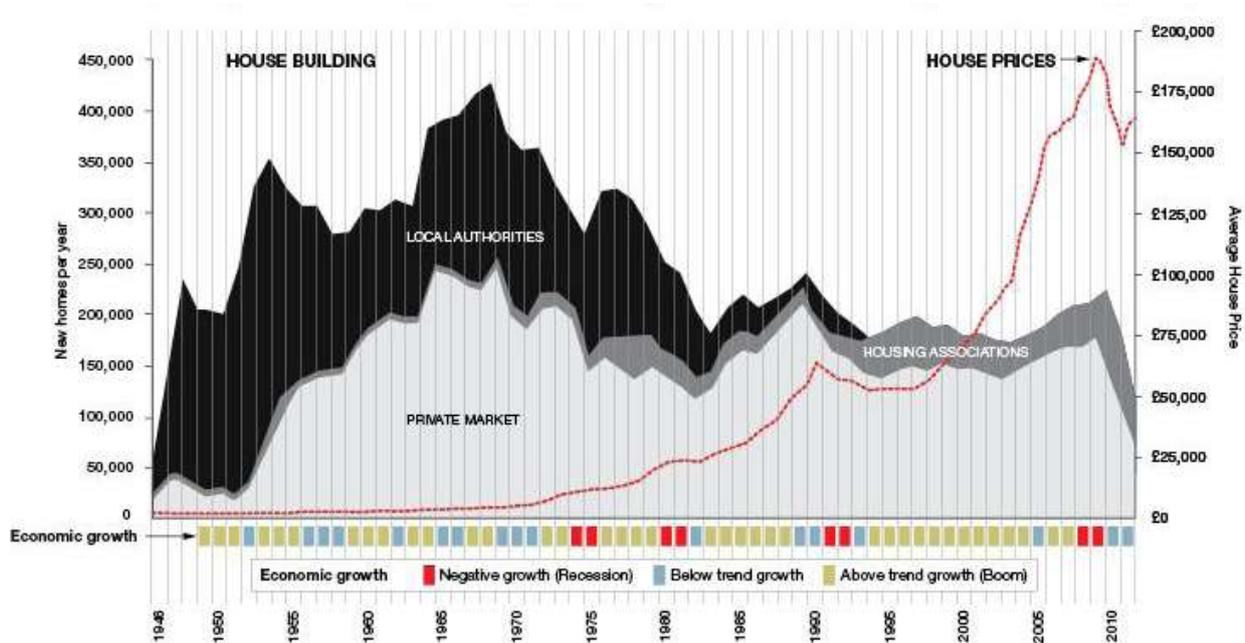
² Getting Serious About the Housing Shortage, Shelter, July 2013

³ We must fix it: delivering the reform of the building sector to meet the UK's housing and economic challenges, IPPR, 2011

⁴ Review of Housing Supply: Final Report, Kate Barker, March 2004

unresponsive to changes in price: “In most markets, as prices rise, the supply of a product increases in response – but housing output is very slow to respond”.⁵

Figure 1: Housebuilding and house prices



Source: Shelter, Solutions for the housing shortage, 2013

In the short run, the responsiveness of supply will be limited by a number of factors, including:

- Whether land supply can respond to price signals, or whether it is determined by non-market mechanisms;
- The time frame for supply decisions; and
- Scope for substitution.

According to the OECD, housing supply responsiveness to price changes varies widely across OECD countries, with potential consequences for the nature and speed of the stock-flow adjustment mechanism that characterises housing markets. The long-run response of new housing supply is estimated to be strong in the United States and Nordic countries, while supply is more rigid in some continental European countries and the United Kingdom.⁶ The OECD concludes that this low supply responsiveness of new housing has tended to exacerbate the price effect of changes in housing demand.

A report by Pro-Bono Economics suggests that the fall in supply since 2007 does seem extreme given a relatively modest fall in prices, and is also higher than the fall in volumes across the market as a whole.⁷ The report also finds that there is a clear contrast to the relatively small response to upward price pressure in the years prior to 2007. The report notes that there are a number of explanations for this asymmetric behaviour; in particular, supply constraints could prevent expansion of construction on the upside whereas there is no such ‘brake’ on the downside. However, overall, the report notes that it seems plausible that there is a tendency for construction firms to adjust supply in response to the price and demand cycle, but with larger reductions in downturns. Thus over the full cycle, the authors conclude that

⁵ Review of Housing Supply: Interim Report, Kate Barker, December 2003

⁶ Housing Markets and Structural Policies in OECD Countries, OECD, 2011

⁷ Construction shortfall and government intervention in the private sector housing market, Robert Carver, Pro-Bono Economics, October 2011

firms will not deliver the same levels of housing as they would if they saw constant demand at the average level over the business cycle.

In addition, it is also possible that housing supply is unresponsive with respect to non-price factors, i.e. supply is relatively inelastic with respect to these other factors. These may include factors such as:

- Household income;
- The length of time it takes to process a planning application;
- Technological progress in housebuilding techniques; and
- Demand-side trends in relation to location and type of housing.

Taking into account the response to price and non-price factors may lead us to believe that there is not only an issue with regard to the number of houses being built, but also with regard to the nature of supply. For example, towards the end of the last decade, it was commonly reported that developers were building too many flats and not enough houses,⁸ and a recent report by Savills suggests that a disproportionate amount of high-end properties are being built in London.⁹

2.3 Impact of Competition on Responsiveness of Supply

The Barker Review notes that housing supply responsiveness is also potentially affected by the degree of competition in the residential construction industry.¹⁰

The OECD finds that the construction industry is typically characterised by a large number of relatively small firms.¹¹ However, this description may be misleading as only a limited number of contractors are capable of managing large projects. In general, the OECD finds that competition is low among large contractors, while it usually tends to be high among smaller sub-contractors.

However, Ball *et al* find that supply elasticities (with respect to price) are greater for large firms than for small firms.¹² The results of the study also show marked difference in the behaviour of the largest firms from the market as a whole. The largest firms were more responsive to improvements in market conditions in their output levels during the time period modelled. As a result, these firms significantly increased their market shares. The increase in outputs was achieved partly through organic expansion, but also through the acquisition of other firms. According to the authors, the greater supply responsiveness of the large firms may have a number of causes, but the result is compatible with the constraint on house building imposed by planning. Larger firms are able to overcome it, at least partially, through such devices as the purchase of other companies.

In another study by Ball, it is noted that the scarcity of readily developable land, induced by planning rules and constraints, encourages British firms to take each other over as a means of quickly increasing land banks. The study notes that firms are willing to be acquired because of the premium they can command as going entities. The conditions for increased market concentration are in place, particularly at times when outsiders wish to enter the industry or insiders want to expand their outputs. By taking over another

⁸ See, for example: <http://www.telegraph.co.uk/news/uknews/1552892/For-sale-too-many-flats-not-enough-houses.html>, or <http://news.bbc.co.uk/1/hi/wales/7089759.stm>

⁹ Spotlight: London Demand; Housing London, The Size and Shape of Demand and Supply in the Capital, Savills, 2013

¹⁰ Review of Housing Supply: Final Report, Kate Barker, March 2004

¹¹ Housing Markets and Structural Policies in OECD Countries, OECD, 2011

¹² Housing Supply Revisited: Evidence from international, national, regional, local and company data, Ball et al, 2011

housebuilder, the acquiring firm's size rises but there is only slow replacement of firms further down the hierarchy. Over time the industry becomes increasingly concentrated.¹³

Consolidation in the sector is evident in the statistics. As reported by DCLG, one feature of the UK industry has been a growing market share for the largest producers. Between the early 1990s and the mid-2000s, the market share of the top 11 firms doubled to around 45 per cent of all dwelling sales. Takeovers amongst them further heightened the market shares of the top few firms towards the end of the boom. During the last couple of years of downturn, those market shares have stayed roughly steady.¹⁴

According to a recent report commissioned by Shelter, there are a number of factors that have contributed to the increasing dominance of large firms. One key factor is the vertical structure of the house building supply process. Large developers which comprise all these elements can potentially make the process more efficient and thus more profitable.¹⁵ Further, according to the report, in addition to the national picture, competition in the house building sector should also be considered within a local context, as there can be instances of concentrated power in a local market where large firms are dominant over a period of time.

In view of the importance of the functioning of the construction industry for supply responsiveness, the OECD considers that it is crucial to implement an effective competition policy which, among other things, enforces anti-trust regulation and hinders collusive behaviour.

In 2008 the OFT published its market study on homebuilding in the UK.¹⁶ The study found little evidence of competition problems with the delivery of new homes in the UK. According to the OFT, the evidence points towards a conclusion that homebuilders in the UK compete for sales against each other and existing homes – i.e. while some homebuyers may wish to buy only a new home, many consider buying either a new or existing home, and so the price of existing homes and the price of new homes constrain each other.

The OFT found no evidence that individual homebuilders have persistent or widespread market power or that they are able to restrict supply or inflate prices. The OFT found that on rare occasions an individual homebuilder may find that it is temporarily the sole provider of a particular type of housing in a local market, but these examples appear to be scarce and account for a small fraction of the total supply of new homes.

The OFT also finds that having a stock of land helps a homebuilder cope with fluctuations in the housing market and also helps to reduce its exposure to risk resulting from the planning system. The OFT did not find any evidence that homebuilders have the ability to anti-competitively hoard land or own a large amount of land with planning permission on which they have not started to build. However, in contrast the OFT does note that *“(m)any of the mergers that have created the larger firms have been in part motivated by a desire to obtain land.”*

Indeed, with regard to the future of the sector, the OFT states the following: *“Acquisition of a greater number of sites becomes a critical part of these fast growing homebuilders' expansion strategies. It is far easier to sell 100 homes a year from four different sites (because of the absorption rates on each site) than it is to sell 100 homes from a single site. Consequently, for a homebuilder looking to grow rapidly the key is to acquire more sites rather than expand production on the sites that it already has. This imperative drives many of the mergers and takeovers.”*

The Barker Review also found little evidence that option agreements (which allow housebuilders to reserve land before it acquires planning permission at relatively low cost) and land-banking allow housebuilders to erect barriers to entry into the market. Specifically, new entrants into the market would be able to buy

¹³ Firm size and competition: A comparison of the housebuilding industries in Australia, the UK and the USA, Michael Ball, 2007

¹⁴ The housebuilding industry: Promoting recovery in housing supply, DCLG, 2010

¹⁵ Understanding supply constraints in the housing market, FTI Consulting, July 2012

¹⁶ Homebuilding in the UK: A market study, OFT, September 2008

options from other players, and once the time taken to acquire planning permission and to build houses is taken into account, the size of core land banks does not seem unreasonable. However, in practice, as noted above, there has been consolidation of existing firms in the market, rather than new entry. Further, the lack of public records in relation to strategic land banks makes it difficult to assess the extent to which this is a problem or not.¹⁷

In a report on the future of UK housebuilding by RICS, the authors note that they see few changes in the future to the dominance of private housebuilders regarding new homes completions in the UK. The report notes, however, that the structure of the industry is likely to become more diverse, with more specialist firms working within sustainability, zero carbon, and innovative technologies (for both construction and renewable energy).¹⁸

2.4 Barriers to Entry and Growth

While it appears that competition is functioning well in the market (with respect to acquisition of land and the construction of new homes) and consolidation has been an efficient market response, which has not limited the degree of competition, many commentators have reported that barriers to entry and growth do exist. Below, we consider some of the key barriers to entry for new firms and barriers to growth for existing firms which are preventing a more positive supply response.

2.4.1 Planning system

It has been widely noted that the current state of the planning system acts as a significant constraint on supply. For example, a recent report published by Shelter on supply constraints in the housing market notes that existing business model and strategies have been developed by house builders to deal with the risks and constraints imposed by planning and the risks associated with long lead times. The report notes that this has placed the acquisition and management of land at the core of housebuilders' strategies, rather than house building itself. According to the report, the planning system not only constrains the supply of a key factor of production, but it also significantly distorts behaviour in the market.¹⁹

As noted earlier in this report, the Government is committed to a radical reform of the planning agenda giving new powers to local councils, communities, neighbourhoods and individuals. As such, the focus of our work in developing policy recommendations is not on aspects of planning policy. Nonetheless it is important to bear in mind the constraints imposed on housebuilding by the planning system when considering other barriers discussed below and the policy recommendations put forward in Section 4.

2.4.2 Access to land

Many commentators have reported that access to land is a major barrier to increasing the supply of housing. We note that this is often driven by constraints imposed by the planning system which create barriers in terms of access to permissioned land. Below we focus on the shortage of land driven by other factors (though we note that even in these cases, it is not possible to entirely abstract from the planning issues).

As reported in a recent policy paper by the Royal Town Planning Institute, owners of land vary in size ranging from single or family ownership to pension funds, trusts, institutions, educational bodies, developers

¹⁷ Indeed, the OFT's report refers to the "the fragmented nature of land records".

¹⁸ The future of UK housebuilding: RICS Research

¹⁹ Understanding supply constraints in the housing market, FTI Consulting, July 2012

and the public sector. The need for the private and public sector to maximise returns on the sale of the land is often the key determinant in whether land becomes available on the market.²⁰

A 2011 report published by the Institute for Public Policy Research (IPPR) notes that land is such a central business resource in the UK building sector that firms are extremely reluctant to sell, particularly at lower market prices than those that they originally paid, and that rather than seeing a release of new developable land to new market actors, for most builders land sales are the last option.²¹

It is important to note that many commentators do not consider land banking by housebuilders to be a major barrier. Indeed, this is the conclusion reached by the OFT and the Barker Review. Nonetheless, it is clear that land that is undeveloped is often not released for development. As noted by the OFT in its market study, housebuilders will build at a rate which will satisfy the demand in the local market at or above the existing price levels; therefore, the OFT claims *“if homebuilders wish to sell homes more quickly, they can do so, but they have to reduce prices to achieve faster sales”*. According to the report, this is why build out rates are dictated by local market conditions and not by the maximum technical speed at which homes can be built; housebuilders deliver new homes as fast as they can sell them (without lowering margins), rather than the speed at which the houses can be built. The OFT notes that reducing prices is not usually a profitable strategy for housebuilders because faster sales and hence lower interest costs do not offset the reduction in price.

It has also been reported that the UK banking sector is overexposed to UK residential property and UK residential land, and that the banking sector appears to be taking a strategy of extracting cash flow from its borrowers but deferring realisation of bad debt. This both hampers market recovery and starves credit from healthy builders and possible new entrants into the sector.²²

Michael Ball's work in 2010 for DCLG reported that a major developer from the Netherlands that was interested in entering the UK market came across difficulties with regard to the nature of the UK development bidding processes. Specifically, the Dutch developer felt that it was necessary to find a UK partner to enter the market because direct land purchase and development posed too many risks due to knowledge and information barriers.²³ The OFT also found that the control over land purchase activity represented a barrier to entry for foreign firms, and that, for smaller UK builders, these land-related barriers mean that developable sites are scarce and, by the time they get to market, very expensive.

2.4.3 Capital requirements and access to finance

Problems with access to finance, particularly for smaller firms which are reliant on loans from banks, have also been widely reported as a barrier to entry and growth in the housebuilding sector. This is something which has understandably become a more important factor since the credit crunch and the financial crisis.

DCLG's report on promoting recovery in housing supply provides a succinct summary of the issues the sector faces with regard to access to finance. Michael Ball notes that housebuilding has been badly hit by the risk assessments made by banks and through the loss of so many financial institutions that used to provide finance. Small and medium-sized builders are particularly constrained, which means they do not have the finance to rebuild their businesses. It is also very challenging for new entrants and most occasional developers in housebuilding to raise finance for new developments. This has important implications for housing supply because around half of all new housing is provided by such enterprises.

²⁰ Delivering Large Scale Housing: Unlocking Schemes and Sites to Help Meet the UK's Housing Needs, RTPI, September 2013

²¹ We Must Fix It, IPPR, M Griffith, December 2011

²² *Ibidem*

²³ The housebuilding industry: Promoting recovery in housing supply, DCLG, 2010

It has been widely reported that large firms have a greater ability to raise finance than do smaller ones, as they can raise equity finance and access capital markets through corporate bonds and other instruments. Many commentators have noted that the problems of finance have been much greater for many medium-sized and smaller firms than has been the case for the major housebuilders. Many SMEs have not been able to secure funding for their businesses. While some of these firms may be able to wait till credit conditions ease, many firms with on-going overheads, land banks and employees may not be able to do so. According to Brian Berry, Director of External Affairs at the Federation of Master Builders (FMB): *“Nearly 58 per cent of survey respondents told us they had been unable to implement growth or investment plans because they had been unable to raise the necessary funds from the bank, and nearly 49 per cent of respondents told us that they had been unable to implement expansion plans that would have created new jobs.”*²⁴

Some of the financing issues currently affecting SMEs in the housebuilding industry could be considered to be longer-term issues, which are not the direct result of the credit crunch. For example, SMEs tend to have limited equity and external sources of private equity are hard to find. These firms find it difficult to access capital markets in other ways. As such, bank funding tends to be the only option.

It has been reported that lenders also face difficulties when lending because small firms lack financial transparency. This may be the case in many industries, but it is likely to be a particular issue in the housebuilding sector where small firms are dependent on a few land sites, and face lumpy, volatile cash flows as land is purchased, sites developed and sales made.

The possibility of new entrants to housing development and construction raising finance in the present conditions is likely to be low; however, this may ease as credit conditions improve and lending by banks to businesses increases. According to the OFT’s findings in 2008, access to finance is a limiting factor to entry but it is a more significant limiting factor to expansion. However, particularly in the light of the volatility of the housebuilding market, this may not necessarily be a problem and it is likely to help to create some stability in the industry by avoiding even greater levels of insolvency during downturns.

2.4.4 Prerequisite knowledge

In addition to, and tied to, the issues in relation to the planning regime and access to land and finance is the barrier to entry created by information asymmetries between existing firms and potential entrants. It has been widely reported that requirements for training and regulation are barriers to entry by newer firms at a significant scale. The early stages of housebuilding, including land buying, are also advantageous to established large firms as they will have the experience to understand the framework in a given area and have an existing relationship with local authorities. In these cases the existing large firms are more likely to have the technical expertise of the preferred approach to land acquisition and planning. In addition, regulation in relation to housebuilding, such as Building Regulations in the face of zero carbon policy, may pose barriers to new entrants and incumbent homebuilders looking to expand.

²⁴ As reported in “Understanding supply constraints in the housing market”, FTI Consulting, July 2012

3 Policy Ideas

Discussion around the need to address the shortage of new housing has been prevalent for some time now and has been widely reported on (as evidenced in the previous section) for a number of years, with a range of policy proposals put forward from an array of stakeholders to address the problems at hand.

In this section we first present an overview of previous policies and policies currently in place to boost housing supply, before going on to present a 'long-list' of policy ideas that could potentially alleviate the problems faced by the sector. In Section 4 we analyse six of these ideas in more detail.

3.1 Policy Ideas: Past and Present

3.1.1 Current Government Policies

The Government currently has a number of policies in place designed to stimulate housing supply. We provide an overview of some of the key measures below.

Bringing surplus public-sector land back into use

The public sector owns an estimated 40 per cent of larger sites suitable for new buildings. The Government's aim is to release public-sector land with capacity to deliver up to 100,000 homes between 2011 and 2015. The Government has already identified sites for over 100,000 new homes, and major land-holding government departments have published disposal strategies to make land available for building development. The Government also plans to set up a website with all the available public land listed on it.

The Government has also stated that it wants to allow as many developers as possible to start work on new homes without the initial expense of buying the land – where it represents good value for money for the taxpayer.

Get Britain Building

The Government has created a £570 million 'Get Britain Building' investment fund for development sites that have stalled, haven't started or are classified as being on hold. The Government's analysis suggests that there are 133,000 stalled units, of which 43,000 have planning permission but no progress has been made for at least 12 months. The investment will enable developers and home builders in possession of stalled sites to build up to 16,000 new homes. Up to 15 per cent of the total fund will be allocated to sites providing good value for money that have been identified through the Homes and Communities Agency's local investment planning process exercise.

Private finance initiatives

Private finance initiatives (PFIs) enable local councils to enter into a contract with the private sector for the provision of services involving new or improved capital assets (buildings or equipment). Support can be allocated by central government departments towards the cost of the capital element of PFI projects. PFI is used for housing refurbishment and regeneration schemes, where other grants or funding would not have been enough to make the radical changes to estates that are required. The Government estimates that it will have spent £145 million on PFI housing grants in 2012 to 2013. Most contracts run for 25 or 30 years.

NewBuy Guarantee scheme

The NewBuy Guarantee scheme aims to help buyers who have a deposit of at least 5 per cent to buy a new-build home. This is a smaller deposit than is typically required in the current mortgage market. The initiative has been developed jointly by the Home Builders Federation and Council of Mortgage Lenders.

The Government expects that the scheme will help up to 100,000 households buy a new home. More than 70 house builders and 6 lenders have signed up to the scheme.

New Homes Bonus

The New Homes Bonus is a grant paid by central government to local councils for increasing the number of homes and their use. The New Homes Bonus is paid each year for 6 years. It is based on the amount of extra Council Tax revenue raised for new-build homes, conversions and long-term empty homes brought back into use. There is also an extra payment for providing affordable homes.

The £916 million of provisional New Homes Bonus allocations announced for 2014 to 2015 brings the total to £2.2 billion over the 4 years between 2011 and 2015. Of that, £1 billion is additional grant provided by DCLG.

3.1.2 Autumn Statement 2013

According to the Chancellor's 2013 Autumn Statement, the government is taking action to ensure that the supply of housing responds to higher demand. The National Planning Policy Framework has streamlined planning policy, and £4.5 billion investment in Affordable Housing, £570 million Get Britain Building scheme, and £1 billion Build to Rent funds are providing support for new and stalled developments.

The Autumn Statement 2013 announced that the government would take further action to increase housing supply and support home ownership:

- **By funding infrastructure to unlock large housing sites.**

Building on the long-term capital settlements set out at Spending Round 2013, the government intends to create a £1 billion, 6-year programme to fund infrastructure to unlock new large housing sites. This is expected to support the delivery of around 250,000 homes. The programme will begin in 2014-15, with investment decisions on nine specific sites, which is expected to be capable of unlocking around 27,000 houses. £50 million of this will be earmarked for Local Enterprise Partnership supported bids.

- **By increasing the funding available for new affordable homes by raising LA Housing Revenue Account borrowing limits, allocated on a competitive basis.**

The government intends to increase the funding available for new affordable homes, by increasing LA Housing Revenue Account borrowing limits by £150 million in 2015-16 and £150 million in 2016-17, allocated on a competitive basis, and from the sale of vacant high-value social housing. This funding is expected to support around 10,000 new affordable homes and will form part of the Local Growth Fund, available to local authorities who have a proposal agreed by their Local Enterprise Partnership (LEP).

The government will prioritise bids on the basis of their value for money, and would expect partnership working with Housing Associations or through Joint Ventures. The government also expects bids to contribute public sector land, and disposal of high-value vacant stock to drive competitive bids. To support this, the government will ensure all councils are transparent in the value and size of their housing assets.

3.1.3 Real Estate Investment Trusts

As noted by the Barker Review, in other countries institutional investors play a larger role in private rental housing, with social housing and owner occupation contributing smaller proportions of the total tenure

mix. Governments in the UK have attempted to encourage such institutional investment in property in the past. For example:

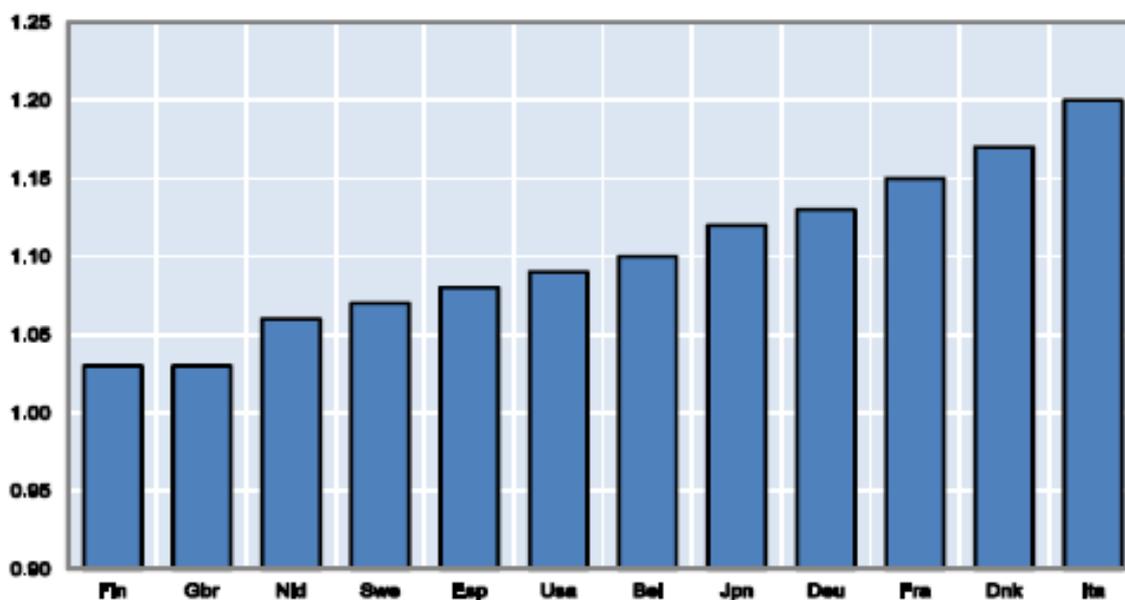
- In 1996 legislation was introduced permitting the establishment of Housing Investment Trusts (HITs), which had a reduced tax liability compared with normal property companies; and
- The Business Expansion Scheme in the 1980s assisted new and small businesses in raising capital by providing tax incentives to individuals and companies to invest in new companies and other high-risk ventures.

Submissions to the Barker Review argued that changes to the tax system would encourage greater institutional investment in property which might have positive benefits for housing supply. For example, given a guaranteed institutional buyer, housebuilders may be more willing to increase supply of the specific type of housing units desired by investors. In addition, long-term investment may promote greater stability in the market, as institutional investors are typically less reliant on debt financing, and thus less vulnerable to interest rate changes than small individual private landlords.

3.1.4 Some Examples from Europe

The OECD's report on housing markets and structural policies finds that responsiveness of supply is quite varied across the countries analysed. The report notes that, in general, competition is low among large contractors, while it usually tends to be high among smaller sub-contractors. Where competition is low, mark ups (i.e. prices over marginal cost) would be expected to be high, whereas mark ups would be expected to be lower where competition is high. The diagram below shows average mark ups in a selection of countries:

Figure 2: Average mark-ups (of price over marginal cost) in the construction sector, 1993-2004



Source: Housing Markets and Structural Policies in OECD Countries, OECD, 2011

Below, we consider some examples of policies to boost supply in the Netherlands, Sweden, Luxembourg and Spain. As can be seen in the diagram above, the OECD estimates that, around the time that the policies discussed below were implemented, average mark-ups in the Netherlands, Sweden and Spain are quite similar to that in Great Britain.

The Netherlands

In the 2000s, demand for housing grew considerably in the Netherlands. Supply not only failed to meet this growth in demand, but declined since the end of the 1990s. In response to this shortage of housing, a number of new policy initiatives were introduced with the aim of increasing housing construction in the Netherlands by more than 30 per cent to 80,000 dwellings per year in the period 2005 to 2010.

The measures introduced included the following:

- housing construction agreements were devised with 20 regional governments, incorporating a direct relationship between the number of dwellings to be built and the provision of subsidies to acquire land.
- ‘Booster teams’ were formed by the Ministry for Housing which aim to identify and remove procedural impediments on construction sites, in the field of land acquisition and revisions of local housing building programmes.

Sweden

In the face of excess housing demand in some regions of the country and low housing demand in others a number of measures intended to enable increased housing construction in areas with excess demand were initiated in 2004. These included:

- A review how the planning process can be rationalised to expedite housing development;
- Revised regulations to make it easier to build housing on top of existing infrastructure and non-residential buildings;
- A Building Costs Forum was set up to demonstrate practical methods of promoting competition, decreased price pressure and increased efficiency in order to stimulate the construction of good-quality housing at reasonable costs. The Forum had access to SEK 20 million per year to enable it to support pilot projects intended to develop methods that will lead to long-term reductions in housing costs and sustainable development.

Luxembourg

In order to address strong housing demand and shortage of supply in the early part of the last decade, the Government of Luxembourg introduced policy measures focused on promoting the renovation and rehabilitation of old dwellings for occupation. It also modified the tax framework to favour the sale of land, for example, the rate of capital gains tax payable on the sale of land or apartment blocks was reduced to 25 per cent of the average taxation rate during the period 2002 to the end of 2004.

Spain

In the middle of the last decade, the Spanish government introduced a range of policy interventions under the auspices of a series of State housing plans to address high housing demand and property price increases. The State Housing Plan covered the period 2002 to 2005 and proposed a number of measures intended to ‘rebalance’ the housing market. These involved the financing of 148,767 new social dwellings for sale, the refurbishment of a total of 117,590 dwellings, and the development of adequate land for the construction of 46,739 dwellings.

The Dangers of ‘over-construction’

During the period 2000-07, the Spanish economy recorded an average annual growth rate of 3.75 per cent which was driven in large part by growth in the Spanish construction industry. During this period Spain experienced a construction boom in response to a shift in Spanish culture to property ownership, population increases and low mortgage rates, building about 800,000 new homes a year – more than the total new housing stocks in France, Germany and Italy combined.

However, as credit conditions tightened, financial markets seized up and the global economic crisis became more prevalent in 2007, the construction industry in Spain was severely impacted. The number of direct job losses in the Spanish construction sector amounts to 1.7 million, equivalent to 43 per cent of the total fall in employment between Q3 2007 and Q1 2013. However, it should be noted that construction has a high employment multiplier, i.e. a job lost in construction causes additional loss in other sectors such as manufacturing (e.g. building materials) and services (e.g. real estate services), so the impact on employment may have been considerably larger.

Having been required by the Spanish government to set aside provisions for failing developers, Spanish banks are now pulling the plug on thousands of builders kept alive during the past five years even as they built almost nothing. The ruling PP Party passed a decree in February 2012 requiring banks to speed up recognition of losses on real estate by boosting provisions set aside for land to 80 per cent from 31 per cent and to 65 per cent for unfinished developments (from 27 per cent).²⁵

Similar events transpired in Ireland where the construction industry was also accelerating at rate that was not sustainable for long-term growth. Between 2000 and 2006, there were around 480,000 new homes build, which is five times higher than the EU average build rate. At the peak of the boom in 2006, the sector represented nearly 25 per cent of the GDP of Ireland and accounted for 13 per cent of employment.²⁶ However, the industry has been hit severely and the employment in the sector has collapsed by two-thirds after the financial crisis.²⁷ More than 2,000 construction companies have declared bankruptcy since 2009.

Further, in addition to issues of quantum, there are also dangers of 'over-construction' of certain types of dwelling relative to the demand for these types of dwelling.

3.2 Policy Ideas

Below we provide a list of policy ideas that could address the barriers to entry and growth seen in the sector, thus fostering more responsive supply.

Maintaining supplier diversity

This type of policy would ensure that public bodies maintained a diverse set of suppliers (in terms of size, which may also yield a range of business models) in respect of public land which is to be developed for housing. This is a common practice in other sectors where a diverse supply chain is maintained to ensure that suppliers remain competitive. For example, it would be normal practice for a large supermarket to take orders from a range of suppliers to ensure that none of the suppliers built up a dominant position.

Supplier diversity could be maintained (in order to ensure that the supply chain remains competitive) by introducing diversity of supplier guidelines in procurement policy for the public sector. As part of its policy to bring surplus public sector land back into use, the Government is currently working with the HCA to make land ready for sale as soon as possible. The HCA could therefore:

1. Set a threshold number of units on a site above which contracts must be granted to multiple firms.
2. Prevent incumbent firms (or large developers) from bidding for certain sites.
3. Require local authorities to allocate a certain proportion of land to smaller firms and new entrants.

²⁵ <http://business.financialpost.com/2013/03/20/spain-braces-for-tsunami-of-bankruptcies-as-banks-pull-plug-on-zombie-developers/>

²⁶ <http://www.irishtimes.com/business/sectors/commercial-property/fresh-property-stimulus-must-heed-lessons-of-past-policies-1.1554311>

²⁷ <http://www.ft.com/cms/s/0/b6a94974-54e9-11e3-86bc-00144feabdc0.html#axzz2mznKcNMx>

4. Set a smaller firm and new entrant quota for public land that is made available for development, including sites made available for self-build homes.
5. Make publicly owned land available to an 'enabler' (or act as an enabler themselves) who will control the overall design of the site, divide it into suitable plots and allocate plots.

Structural approaches

This type of policy would alter the structure of the market by separating the housebuilding sector into the different stages of the value chain, e.g. purchase of land, design and construction. This would allow firms who are not able to access land for development (e.g. due to financing issues) to bid for just the construction stage of the value chain, say.

This unbundling approach has been implemented in network sectors like energy and telecoms, where competitive stages of the value chain (like retail) have been separated from natural monopoly stages of the value chain which remain competitive, and access to the network is granted to third parties on the basis of regulatory rules and/or market codes.

This approach would remove the need for access to land in order to be able to construct houses; however, we note that this process is already commonplace in the housebuilding sector, as many large developers contract out the actual building of properties to other firms, which are often SMEs.

Development choices by public bodies

There are a number of possibilities available to influence development choices by public bodies, such that more land is made available for development:

1. Make more public land available for the creation of new public-private housing delivery vehicles. This could take the form of allowing the developer to take an equity stake as payment for bearing the costs and risks associated with developing the land.
2. Local authorities could adopt a more assertive 'use it or lose it' approach to privately held land in their areas, including compulsory purchase orders.
3. Assemble sites owned by public sector to create a property portfolio for councils' pension funds.
4. LA funded building in areas of low population density (or middle to high population density where incremental demand is low), i.e. a "build it and they will come" approach.

Development choices by the housebuilding sector

One possibility for influencing development choices by housebuilding firms would be to introduce a stronger principle of avoiding the creation of house price cycles through policy. The thinking here is that, given the time lag involved in obtaining planning permission, developing land, selling houses, etc. housebuilding firms are exposed to considerable risk with respect to house prices. As such, only firms with sufficiently "deep pockets" will be able to weather risks created by house price volatility by diversifying their development portfolio. As noted in section 2.2, house price volatility tends to make supply more inelastic with respect to price. Therefore, reducing house price volatility should reduce risk exposure, thus reducing the need for "deep pockets".

Land value payments to government

This type of policy would involve payments or charges (possibly in the form of a tax) in relation to the value of the land, rather than the value of the property on the land in order to drive more efficient behaviour with respect to undeveloped land. There are a number of ways in which payments or charges in relation to the value of land could be implemented. For example:

1. Introduce a land value tax, taking the form of an annual levy on the rental value of unimproved land where sites are undeveloped.

2. Levy a tax on unused sites or empty properties only (rather than a general land value tax).
3. Introduce the relevant change of use taxation as soon as planning permission is granted, e.g. charge council tax for properties to be developed, even if the properties have not yet been built.
4. Return to a socage-style system in which land is held in exchange for a clearly defined, fixed payment to be made at specified intervals to the Exchequer, whereby the Crown would be able to guide development by the charges it set for different land uses in different parts of the country and by the ways charges changed when land uses changed.

Failing housebuilders

This type of policy would seek to release land held by ‘zombie’ housebuilders, i.e. firms that continue to operate despite being insolvent or near bankruptcy. Options include the following:

1. The government could act as a ‘clearing house’ for the land banks of failing housebuilders, releasing non-performing residential land assets held by housebuilders with large debts owing to nationalised banks and seek strategically to release these holdings to new market entrants.
2. Create a special administration regime whereby the Crown reasserts its fundamental ownership of the land if a housebuilder becomes financially distressed (e.g. insolvent).
3. Create a special administration regime whereby the Crown reasserts its fundamental ownership of the land if there is a change of use. This could be coupled with an escalating charge for use of the land until it is developed.

Nationalised lenders

This type of policy would aim to ensure that nationalised banks took a more proportionate response to new build risk with respect to capital requirements, thus allowing more lending to housebuilders, particularly SMEs which are reliant on bank loans as they are not able to raise funds by issuing bonds. Two possible forms that this could take are:

1. Government ensures it reduces policy risk associated with new build resulting in lower overall risk for a specific project.
2. Government ensures that capital requirements reflect systemic risks associated with housebuilding sector, taking into account systemic risks from not having enough housing.

Reduce costs of building

There may be a number of ways in which the costs of building, which may be prohibitive for some new (small) entrants, could be reduced. Two clear, simple ways of doing this would be to:

1. Alter timing of the payment for the proposed community infrastructure levy (CIL) for small homebuilders.
2. Help small homebuilders and self-builders make use of off-the-peg solutions for meeting environmental and sustainability regulations (though we note that this already happens to some extent).

Procurement process

This type of policy would seek to ensure well-designed procurement processes which do not incentivise anti-competitive behaviour. For example:

1. Ensure that firms are not struck off tender lists if they do not bid for something.
2. Ensure that single price tenders are not used.
3. Introduce two stage tenders.

4 Analysis of Policy Options

In this section we describe six of the policy ideas described in the previous section in detail:

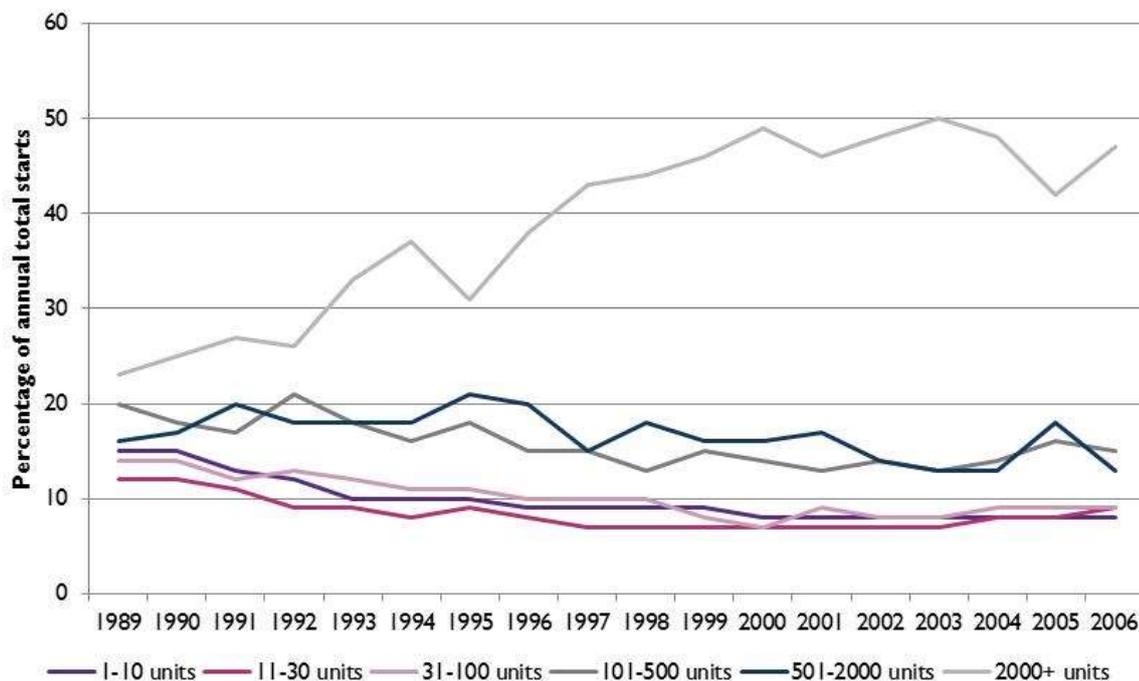
1. Introduction of diversity of supplier guidelines or rules in procurement policy for the HCA as it looks to bring surplus public sector land back into use. (“Option 1”)
2. Assembly of sites owned by the public sector to create a property portfolio for LA pension funds. (“Option 2”)
3. Introduction of a stronger principle of avoiding the creation of house price cycles through policy. (“Option 3”)
4. Creation of a special administration regime for “zombie housebuilders” whereby the Crown reasserts its fundamental ownership of the land if a housebuilder becomes financially distressed (e.g. insolvent). (“Option 4”)
5. Introduction of the relevant change of use taxation as soon as planning permission is granted, e.g. charge council tax for properties to be developed, even if the properties have not yet been built. (“Option 5”)
6. Government ensures that capital requirements reflect systemic risks associated with housebuilding sector, taking into account systemic risks from not having enough housing. (“Option 6”)

4.1 Option 1: Diversity of Supplier

This option involves the introduction of diversity of supplier guidelines or rules in procurement policy for the HCA as it works with the Government to bring surplus public sector land back into use.

4.1.1 Description

As can be seen in the chart below, a feature of the UK industry has been a growing market share for the largest producers. According to a report published by DCLG in 2010, between the early 1990s and the mid-2000s, the market share of the top 11 firms doubled to around 45 per cent of all dwelling sales. Takeovers amongst them further heightened the market shares of the top few firms towards the end of the boom.

Figure 3: Percentage of annual total starts made by builders, within the stated size categories

Source: NHBC statistics

The same report goes on to note, however, that over 50 per cent of all output is produced by a variety of other providers, such as small and medium builders, firms where housebuilding is a side-line, social housing providers building for market, and self-builders. Nonetheless, the increasing dominance of the largest housebuilders may create concerns about the degree of competition in the sector. This concern may be exacerbated by the prospect of further consolidation as a means of gaining access to more permissioned land.

The Government is working with the HCA to release surplus public land. This increase in the availability of land, much of which is permissioned land or has scope for planning permission to be granted, could therefore increase the responsiveness of supply. However, it is possible that a lot of this land will be sold to larger housebuilders, particularly where the sites are larger.

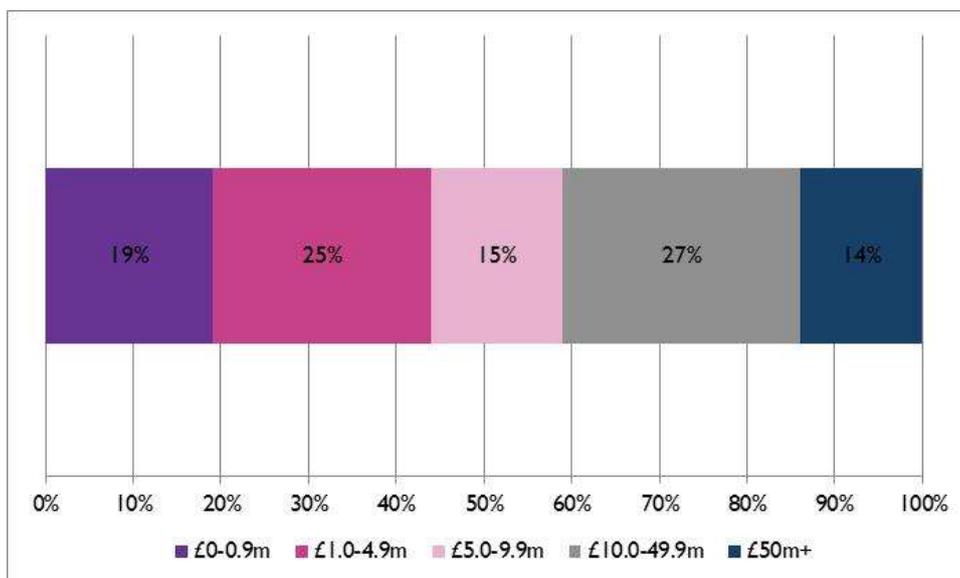
In order to reduce the scope for adverse competition effects arising as a result of the increased dominance of the largest housebuilders, this policy option would ensure that some rule or guidance is created in the HCA's procurement policy which ensures that this surplus public land is released to a diverse set of firms. As described in section 3.2, this could take a number of forms, for example:

- Set a threshold number of units on a site above which contracts must be granted to multiple firms.
- Prevent incumbent firms (or large developers) from bidding for certain sites.
- Require local authorities to allocate a certain proportion of land to smaller firms and new entrants.
- Set a smaller firm and new entrant quota for public land that is made available for development, including sites made available for self-build homes.
- Make publicly owned land available to an 'enabler' (or act as an enabler themselves) who will control the overall design of the site, divide it into suitable plots and allocate plots.

Examples of supplier diversity

It is common practice to maintain supplier diversity with the aim of ensuring suppliers remain competitive.

For example, there are a large number of firms that supply groceries to UK grocery retailers either directly or indirectly. This includes food and drink manufacturers, primary producers and fresh food wholesalers, including packers, processors and wholesalers. In its inquiry into the groceries sector, the Competition Commission found that there is a large variation in the size of businesses supplying grocery retailers. Grocery suppliers include branded goods' producers, such as Coca-Cola, Unilever, Kimberly-Clark and Procter & Gamble. However, many small businesses also provide products to grocery retailers. The Competition Commission's survey of groceries suppliers indicates that around one-fifth of groceries suppliers earn less than £1 million a year from the sale of groceries:²⁸



However, supplier diversity options are not without their pitfalls, as encountered by the Government with its rural broadband programme. It is possible that only the big players – in that case just BT – can manage lots of bids and the value of a single bid becomes lower if the units are too small, as sites are divided between different firms. This may reduce the incentive for other players to enter the market.

4.1.2 Potential impact

Pros

A major advantage of this option is that it could allow SMEs to compete for (parts of) sites that they wouldn't otherwise have access to. SMEs will typically build out smaller sites more quickly, and this could lead to an increase in the responsiveness of supply in the short term.

This could lead to a greater degree of competition between smaller firms and larger firms, and also between smaller firms, which may have positive implications for the resilience and sustainability of the market in the longer term.

²⁸ The supply of groceries in the UK market investigation, Competition Commission, April 2008

Further, to the extent that this allows smaller developers to grow in the medium to longer term, this could result in a less concentrated industry overall. In the longer term, this increase in competition could ultimately lead to more homes being built at lower cost and/or of higher quality, and may result in supply which is more responsive to demands for certain types of housing.

Cons

If the procurement rules are designed to actively promote building by SMEs, it is possible that this may serve as a barrier to entry for larger entrants. Larger entrants are less likely to be housebuilders, given the knowledge required to build houses, but may be firms that wish to enter the market and contract out the building of houses. To the extent that this type of entry is deterred, this could have a detrimental impact on SMEs which often work for larger companies on a contractual basis, which could negate the positive effects of the policy option.

This option could also exacerbate problems in relation to access to finance for smaller developers, as they seek to expand. This may deter expansion / entry in the short term, despite potential access to greater proportion of the market.

Impact

It is possible that this option could lead to faster build out rates in the near term, with beneficial impacts on competition in the future. To illustrate the possible benefits of increasing diversity, we calculate the Herfindahl–Hirschman Index (HHI) for the housebuilding sector (using NHBC data) and compare it to the HHI for suppliers in the groceries sector (as described in the box above).²⁹

Table 1: Comparison of HHI for suppliers to supermarkets and the housebuilding sector

Groceries		Housebuilders	
Size	Share	Size	Share
£0-0.9m	19%	1-10 units	8%
£1.0-4.9m	25%	11-30 units	9%
£5.0-9.9m	15%	31-100 units	9%
£10.0-49.9m	27%	101-500 units	15%
£50m+	14%	501-2000 units	13%
		2000+ units	47%
Implied HHI	0.21	Implied HHI	0.28

Source: NHBC and Competition Commission Inquiry into Groceries Sector

In a situation of quantity competition with homogeneous products, it can be shown that the total average profit in the sector is proportional to the product of the HHI and of the total revenue of the market.³⁰ Applying this result, a decrease in concentration following implementation of this measure to increase supplier diversity, resulting in a decrease in HHI from 0.28 to 0.21, would increase supply by **32 per cent**, with a marked shift in output from larger firms to smaller firms, if the option is successful in increasing competition. If we were to assume that this transformation would take 10 years to crystallise, this option would represent an increase in total supply of approximately 4,000 homes per year. The faster competition develops, the greater the impact on supply will be. This result is highly stylised and based on a number of strong assumptions; nonetheless, it provides an indication of the possible longer term gains, in terms of increased supply, from increasing supplier diversity.

²⁹ The HHI is a measure of the size of firms in relation to the industry and an indicator of the amount of competition among them. It is defined as the sum of the squares of the market shares of the 50 largest firms (or summed over all the firms if there are fewer than 50) within the industry. In this case, we are using market shares for categories of firms, e.g. firms building 1-10 units in a year.

³⁰ See Appendix I for further detail of this result.

4.1.3 Mechanisms of change

In order to implement this option, procurement guidelines would need to be carefully designed with the HCA and the Government Procurement Service. There may be legal issues (for example, with respect to EU State Aid rules) if this option was implemented in such a way that land was allocated to a specific type of firm.

Similar rules have previously been put in place for spectrum which was auctioned off by the government. However, in that case the government was trying to design a competitive market structure (whereby telecommunication companies go on to compete for customers following the spectrum auctions); whereas competition would take place at the time of procurement under this option (though the thrust of this option is that it may have longer term benefits from increased competition). In any case, under this option, the Government would not be “transferring State resources” to SMEs, which is a necessary condition for State Aid to be there. As such, we do not anticipate that such an option would generate State Aid concerns.

4.2 Option 2: LA Pension Funds

This option involves the assembly of sites owned by the public sector to create a property portfolio for LA pension funds.

4.2.1 Description

This option involves a LA pension fund providing the investment to develop available development land owned by that LA. The pension fund would generate a revenue return from its investment through rents and a capital return through house sales. The risk associated with selling the properties built for ownership and finding tenants for the properties built for rental sits with the pension fund, rather than the developer. This option thus makes more land available for development and reduces the amount of financing required.

Manchester City Council: The Housing Investment Fund

The Housing Investment Fund is a home building model that uses available development land owned by Manchester City Council while an investor finances the build, delivering 241 homes.

The aim of the joint venture, financed by the Greater Manchester Pension Fund, is to stimulate home building in the city at a time when property development has been hindered by the economy, while reducing the usual risks associated with a development as the contractor’s overheads are minimised and they have no sales risk.

The basic premise of the model is as follows:³¹

- There are two investment partners, the council with land to invest and the pension fund with cash to invest.
- The land is valued and invested into the fund as an equity share. The percentage of the share is dependent upon the value of the land in relation to the total cost of the development.
- Together the partnership procures a Contractor to design and build the properties and a Property Manager to manage the privately rented units.

³¹ Manchester City Council Report for Resolution: Housing investment and mortgage support within Manchester, January 2012

- The Contractor will have no sales risk because the partnership will be the owners of the completed units.
- The rental guarantee will be a proportion of the gross rent charged by the Property Manager. It will cover costs associated with management, maintenance, voids and bad debts. After deducting these costs, the net rental income will be shared between the partnership according to the agreed equity share.
- Both investors are able to take a revenue return on their investment and a share in capital return. The revenue return is generated through market rentals and the capital return through house sales.

Wates Living Space has been chosen as the development contractor to build the homes and have been working with the joint venture project managers to draw up planning applications for the five site scheme that will be submitted to the planning authority in December. Plumlife have also been appointed as the sales and marketing team for the sale properties, and Places for People have been chosen to act as agent to let and manage the rental properties. GVA will act as the technical supervisor for the partnership. Pozzoni are the architects for the development.

A tenure mix across the five sites, including a site offered by the Homes and Communities Agency (HCA), has been developed to ensure each location fits in to the property requirement for the local area – including appropriate levels of owner occupation and private rented properties.

Buyers will be able to access the Government's Help to Buy equity scheme to receive up to 20 per cent towards the value of the property, making the new homes available to purchasers who can sustain a mortgage but may not have the required deposit.

4.2.2 Potential impact

Pros

The major advantage of this option is that it makes public land available. As returns will only be realised through sales of properties or by letting out rental properties, there will be an incentive to build out the sites quickly, rather in a staggered way which may have been the case had the land been sold off to a housebuilder which may wish to maintain a pipeline of supply.

Another merit of this option is that it removes the need for firms to have access to finance for procuring land. This may be particularly beneficial for small and medium sized housebuilders who are reliant on bank loans, and are currently facing difficulty in obtaining credit following the recession and financial crisis.

A further advantage of this option is that it may be possible for the LA to drive the type of housing which is built to mirror what the LA deems to be socially efficient (provided this mix of housing provides a sufficient return on the investment).

Cons

Given the Government's current policy to work with the HCA to release surplus public land for development, it is possible that this option would not generate net additions to the housing stock (though it may achieve an increase in the speed at which these sites are built out), because the sites chosen for development may have been released for development anyway.

This option also carries substantial risk for the LA pension funds, and thus may be costly to implement, particularly in the longer term.

Impact

The Local Government Pension Scheme is a nationwide scheme covering employees working in local government or working for other employers participating in the Scheme and for some councillors. The Scheme is administered locally for participating employers through 99 regional pension funds.

Taking the Manchester example as a benchmark, if all 99 of these regional pension funds invested in sites capable of delivering 241 homes (as is expected in the Manchester example), we might expect approximately **24,000 homes to be built on such sites**. It is important to note that these are not necessarily net additions, as it is possible that the LAs would have built homes on these sites in the absence of this model whereby investment is provided by the pension fund. As described in the pros section above, it is possible that these sites might be built out more quickly than would be the case if the site was sold to a housebuilder which may wish to build in a way that allows it to maintain a pipeline of supply.

4.2.3 Mechanisms of change

As described above, this option has already been implemented in Manchester. In that instance the Greater Manchester Pension Fund and Manchester City Council formed a partnership with the former providing investment and the latter providing the land to be developed. This partnership appointed a contractor to design and build the properties and a property manager to manage the privately rented units. The Government is currently working with the HCA to make land ready for sale as soon as possible. If this option were to be rolled out nationally, coordination with the HCA would probably be useful to avoid situations in which a particular council is interested in implementing such a scheme, but the HCA has already earmarked that council's land for some other development..

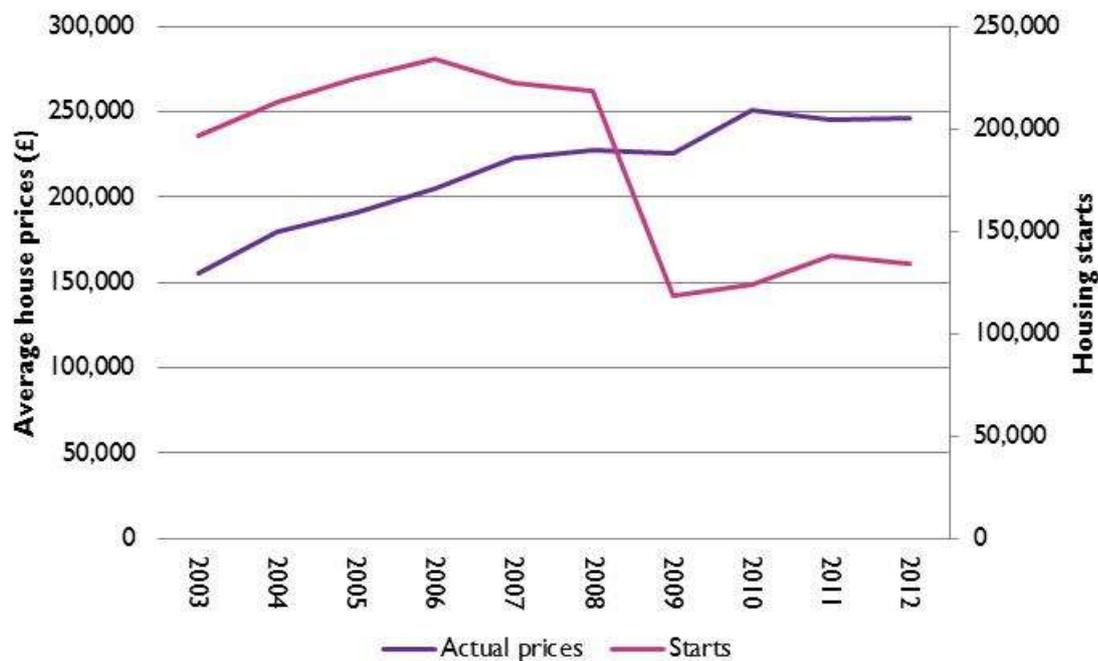
4.3 Option 3: Avoiding House Price Cycles

This option is concerned with the introduction of a stronger principle in policy making for avoiding the creation of house price cycles.

4.3.1 Description

It is generally acknowledged that house price volatility will lead to less responsive housing supply. Higher house prices benefit sellers, but they hurt buyers, while lower prices have the opposite effects. Market instability makes anticipating future price patterns difficult and creates significant price risk for market participants. As such, one way for housebuilders to compensate for this risk is to diversify their portfolios, i.e. by having multiple sites which will be built out at different rates, such that the number of properties facing expected gains outweighs the number of properties facing expected losses. The consequence of this approach is that housebuilders must have sufficient financing to fund this diversification, thus making it more probable that larger housebuilders will be well placed to “weather the storm”, whereas smaller housebuilders who don't have sufficiently “deep pockets” will face difficulty.

As can be seen in the chart below, a very small fall in prices between 2008 and 2009 corresponds with a dramatic fall in the number of housing starts, whereas larger increases in prices at other times in the last 10 years have produced much smaller increases in supply. As noted in section 2.2, it seems plausible that there is a tendency for construction firms to adjust supply in response to the price and demand cycle, but with larger reductions in downturns. Thus over the full cycle, firms will not deliver the same levels of housing as they would if they saw less volatility over the business cycle.

Figure 4: House prices vs. housing starts

Source: ONS and CLG statistics

Therefore, on this basis, a reduction in house price volatility should increase the responsiveness of supply by reducing the risk for housebuilders created by uncertainty.

The impact of flexibility of supply on property cycles

Ellis *et al* examine how the flexibility of supply (as well as the contract features of loans) influence property boom-bust cycles. The authors construct a theoretical model and calibrate the model to capture some key features of the property development market, notably the typically long time to build for housing.³²

The results show that the lagged response of new supply exacerbates the price upswing because new supply does not put downward pressure on prices for some time. Higher prices during the boom encourage more construction, and ultimately exacerbate the price fall as new supply continues to come on line even as prices are falling. In reality, if property developers could anticipate and completely internalise the effects of their decisions to build on future prices, they might not build as much in the upswing. But in a market with many players, the developer of the marginal property project gains all of the revenue but does not bear the cost of the negative effect its project has on prices of existing properties and those already under construction.

The results also show that, if supply is quite responsive, large amounts of new property will be constructed during the boom, creating an overhang of excess supply once the boom ends. Prices will then fall further, potentially putting even those who bought prior to the boom into negative equity.

4.3.2 Potential impact

Pros

³² Property Market Cycles as Paths to Financial Distress, Luci Ellis, Mariano Kulish and Stephanie Wallace, 2012

Smoothing the house price cycle may reduce the optimal number of projects that a housebuilder would need to have in order to generate sufficient positive returns on some sites which outweigh the losses incurred on other sites. This would therefore make it easier for smaller firms to enter the market or grow, as they would no longer need access to land or finance for as many sites. This may increase competition and result in a more price elastic supply curve, resulting in a more resilient market in the longer term.

Further, to the extent that volatile house prices are driving hoarding of land (in expectation of higher future returns), moderating the house price cycle will reduce the proportion of homes being built with a view to being sold at the top of the cycle. This would, in theory, result in a more even distribution of release of land, making more land available for development, thus fostering a more sustainable sector.

This policy option could also reduce housebuilders' exposure to systematic risks, thus making it easier (or at least cheaper) to access finance. If this did materialise, a reduction in the cost of capital associated with land acquisition could create an incentive to develop land while house prices are high to achieve a higher return on capital employed.

Cons

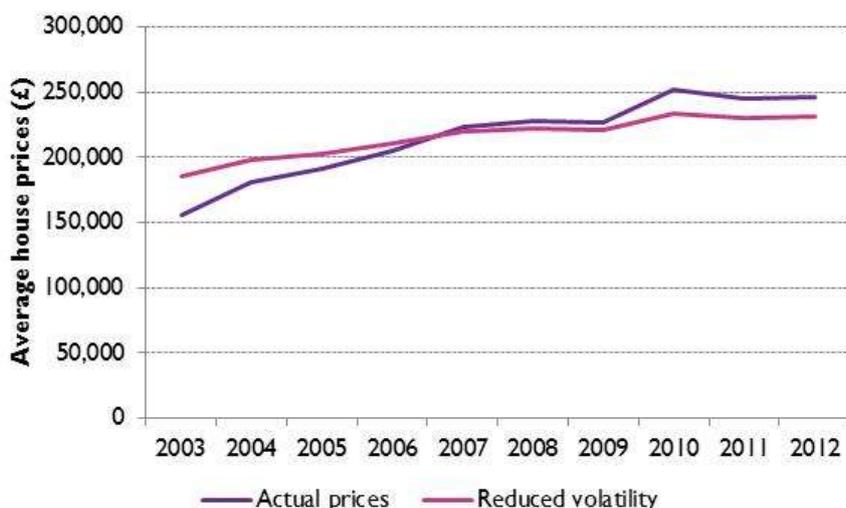
It may be difficult to achieve a better supply response in practice as some policies that affect house prices are often targeting other aspects of the economy, e.g. monetary policy. There is also a risk that the incremental benefit from reducing house price volatility is outweighed by the risks of introducing this aspect into policy making which may be targeting other economic fundamentals.

Impact

In order to illustrate the potential impacts of reducing house price volatility, we have constructed a simple model in which housebuilders of different sizes maximise their profits subject to the cost of purchasing land, the cost of construction and the cost of finance, and constraints on the maximum number of houses that can be built in a year and the total size of a site. The model incorporates a “cost of waiting”, i.e. holding land without building houses on it. Details of the model can be found at Appendix I.

The chart below shows actual house prices over the period 2003-12 and a scenario in which the volatility of prices has been reduced by 50 per cent. This has the effect of smoothing house prices over time.

Figure 5: Actual house prices vs. reduced volatility scenario



Source: ONS and Europe Economics calculations

Calculating the “optimal construction path” in our model using both actual prices and reduced price volatility yields the following build rates over time:

Figure 6: The impact of reduced volatility on supply



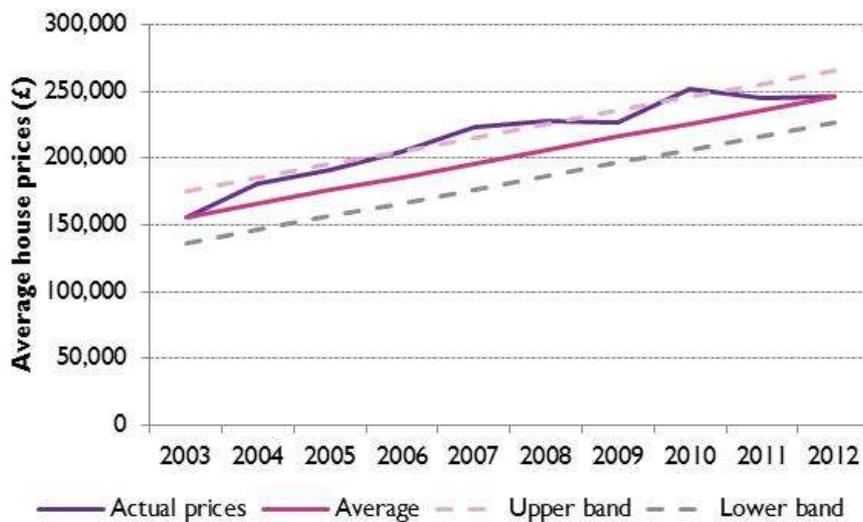
Source: Europe Economics calculations

As can be seen in the charts above, for small, medium and large firms, the effect of reduced volatility is to smooth the optimal construction path, i.e. the build out profile. In all cases, there is a greater number of properties built in earlier years, i.e. for a given quantum of capacity, we see a faster build out rate. In proportional terms, this effect is particularly large for the small and medium firms, building 65 per cent and 30 per cent more in the first three years, respectively, which could lead to nearly 70,000 additional homes being built by small and medium firms in the first three years (based on the number of starts in 2012-13), though this would of course be offset by reductions in volumes in subsequent years. We are interested in the responsiveness of supply, given the level of capacity in the industry. It is possible that in reality, a greater number of properties being built in earlier years could foster greater confidence in the sector, which could in turn result in a greater number of homes being built in the medium term, in a smoothed price cycle scenario.

These results suggest that reducing house price volatility reduces the incentive to wait to build, as there is less incentive to wait for a large price increase, and there is less need to build houses in certain years to minimise losses incurred in other years when the price falls.

These results are based on perfect foresight. In order to test these results, we introduce uncertainty into the model. In this scenario, the housebuilder expects prices to vary within a range:

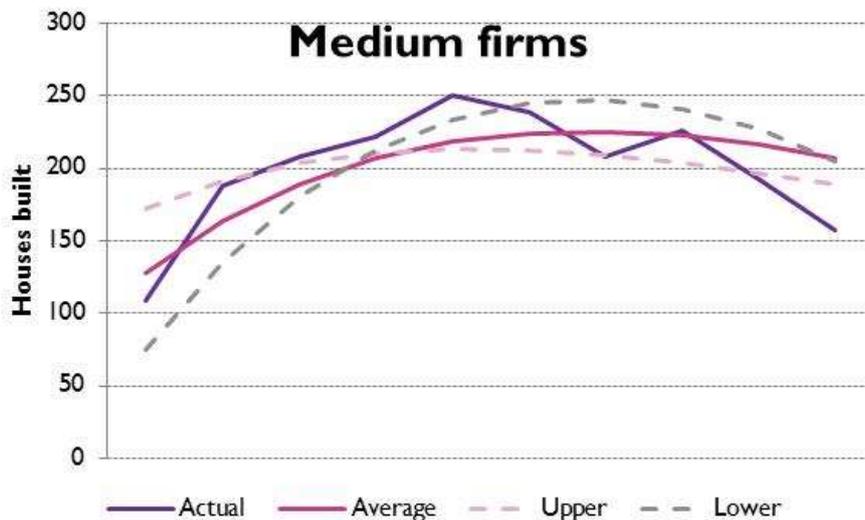
Figure 7: Expected house price volatility



Source: ONS and Europe Economics calculations

Calculating the “optimal construction path” in our model in the same way yields the following results for medium-sized firms. Similar results as those shown below for medium firms are seen for small and large firms.

Figure 8: The impact of uncertain, reduced volatility on supply



As can be seen in the chart above, introducing uncertainty dampens the effect seen with perfect foresight. While we see a smoothed construction profile for the expected average volatility, only marginally more homes would be built to begin with (compared to a scenario in which actual house price volatility is experienced), but then this is then followed by lower output in the proceeding years, before output then increases again. Based on the stylised modelling above, we might expect that in the expected average volatility scenario, there would be an increase of around 5,000 homes built by medium sized firms in the first year (based on the number of starts in 2012-13). However, given that housebuilders will face uncertainty with respect to the expected level of volatility, we might expect reduced volatility to have an impact somewhere between the upper and lower ranges presented above.

4.3.3 Mechanisms of change

There are a number of mechanisms through which this policy could be implemented, including the following (not necessarily mutually exclusive):

- Introducing an additional consideration into the Bank of England’s Monetary Policy Committee target (affecting interest rate decisions)
- Introducing an additional consideration into the Bank of England’s Financial Policy Committee target (affecting issues such as the prudential requirements or supervision of banks in lending for mortgages or to construction firms)
- Introducing a principle into planning regulation that mandated releases of land for development are higher when regional house price rises are higher³³
- A more general concern, expressed through broad policy guidance across a number of departments, including the Treasury, CLG, BIS and others that when regulatory, tax, spending or other decisions are made, avoiding adding to the risk of exacerbating house price cycles should be a relevant policy consideration

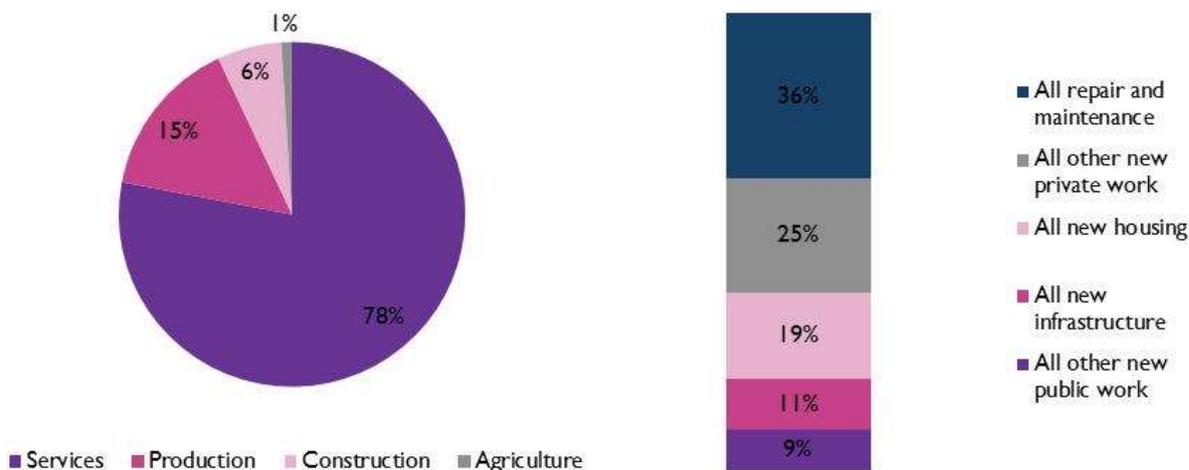
³³ This option was mooted in the Barker Review of Housing Supply, for example.

4.4 Option 4: Special Administration Regime

This option involves the creation of a special administration regime for “zombie housebuilders” whereby the Crown reasserts its fundamental ownership of the land if a housebuilder has assets which it cannot develop but is not forced to liquidate.

4.4.1 Description

Housebuilding accounts for a sizeable portion of the UK’s GDP, as can be seen in the chart below.



Source: ONS (as reported by The Daily Telegraph³⁴)

The malaise in the housebuilding sector following the recession has been widely reported. For example, *The Financial Times* reported: “Housebuilders were savaged during the financial crises as home sales halved and land values plummeted. Smaller construction companies went bust while the listed players were forced to downsize, tap shareholders for cash and write down land bought at the height of the housing boom in 2007.”³⁵

A study by the Local Government Association on unimplemented planning permissions for residential dwellings, found that there were in excess of 30,000 schemes nationwide that had not been implemented over the last five years.³⁶

As things stand, “zombie firms” may still be holding on to land which they are not in a position to develop. Under these circumstances, crucial supply of land which could be developed may not be released to the market in a timely manner. Under this option, firms that owned such land would enter a special administration regime, whereby the Crown would take ownership of distressed land that had not been sold within a certain period of time (a year, say) and release it to market for the purpose of housebuilding.

Special administration regime for investment banks

The failure of Lehman Brothers in the UK and the subsequent administration proceedings showed that the UK’s insolvency regime needed to be improved. There had been difficulties for administrators in returning client assets and client money under previous statutory powers. The prompt return of client assets is needed to mitigate any possibility that the client itself may be forced into financial

³⁴ <http://www.telegraph.co.uk/finance/economics/10515430/Housebuilding-surge-boosts-construction-growth.html>

³⁵ <http://www.ft.com/cms/s/0/ffc52c26-06f3-11e2-92b5-00144feabdc0.html#axzz2qYk5n66R>

³⁶ Local Government Association, An analysis of unimplemented planning permissions for residential dwellings, September 2012

difficulty and also to benefit the insolvent firm's unsecured creditors as their claims can be dealt with quicker and administration expenses will be reduced.

A special administration regime for investment banks designed to strengthen the UK's ability to deal with future investment firm failures has now been implemented.³⁷ The administration procedure, as provided for in the Regulations, creates three special administration objectives which administrators will have a duty to follow:

Objective 1: ensure the return of client money or assets as soon as is reasonably practicable

Objective 2: ensure timely engagement with market infrastructure bodies and the Authorities

Objective 3: either rescue the investment bank as a going concern, or wind it up in the best interest of the creditors

The administrator has the flexibility to prioritise these objectives as appropriate so they are suitable for any size of investment firm which holds client money or assets and is within scope.

4.4.2 Potential impact

Pros

The principal advantage of this option is that it releases land to the market, in the event that a housebuilder owns land that it can no longer develop or because it has become insolvent, for example. The Crown would reassert its ownership of the land and the proceeds would go to the Exchequer, rather than to the creditors of the distressed housebuilder.

This would therefore reduce any barriers to entry or growth arising from limited access to land for development. Based on the experience in the wake of the recession, it might be expected that smaller firms are more likely to be in ownership of land that they are not in a position to develop. This option could therefore increase the rate of churn, and provide "room" for new smaller entrants to enter the market, generating a more resilient supply side. These smaller entrants could build out the land made available under the special administration regime. This is important because entry by smaller firms is perhaps more likely (e.g. members of a family businesses branching out on their own, or builders who have previously worked for a large housebuilder entering the market as a sole trader or setting up an SME), and smaller sites will typically be built out more quickly, thus improving the responsiveness of supply. Further, an increase in entry may also improve the quality of housebuilding.

Where a larger housebuilder is forced to release land to the market, there may be scope for entry by a larger player. This larger player could be a firm with expertise in land procurement and trading, which then contracts out the building of the houses to smaller firms. Alternatively, if the Crown reasserts its ownership of the land, it could divide the land into smaller plots, which may encourage entry by smaller firms.

Cons

It is, however, also possible that such an approach could lead to an increase in concentration, if efficient, larger firms take up the sites that are given up by other existing firms (though, typically, these sites would need to be sufficiently large to be viable for a larger firm).

While this option may increase the availability of land, it does not address barriers in the shape of access to finance, which will be key for smaller firms. (However, as economic and financial conditions improve, credit constraints for housebuilders may begin to ease.)

³⁷ <http://www.betterregulation.com/ie/hot-topic/sar>

Taking a broader view, a disadvantage of this approach is that it may have systemic implications, if creditors are not paid back what they are owed.

Another drawback of this approach is that it may require significant funding to set up a public body which would be responsible for claiming distressed land, and then releasing this land to the market.

Impact

In order to illustrate the impact of this option, we estimate the amount of land that could become available as a result of sales of distressed land.

The aforementioned study by the Local Government Association on unimplemented planning permissions for residential dwellings provides the following data on the number of unimplemented schemes for different development sizes.

Table 2: Proportion of unimplemented schemes over the last five financial years by development size

	Mar-08	Mar-09	Mar-10	Mar-11	Dec-11	% of total schemes over five financial years
<10 units	3	4	5	7	9	6
10-49 units	70	68	66	62	59	65
50-99 units	13	13	13	14	15	14
100-249 units	10	10	11	12	13	11
250-999 units	4	4	4	4	5	4
1000+ units	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Base	8,813	7,140	5,982	6,061	6,067	34,063

Source: Local Government Association, An analysis of unimplemented planning permissions for residential dwellings, September 2012

Taking the number of unimplemented schemes in December 2011 and the number of firms in different size categories from NHBC data, we estimate the number of undeveloped schemes per firm as follows:

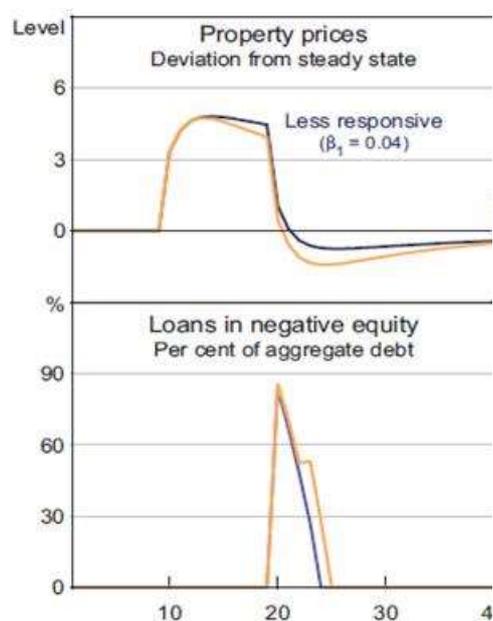
Table 3: Average number of undeveloped schemes per firm

<10 units	0.12
10-99 units	3.97
100-999 units	7.75
1000+ units	1.17

Source: Europe Economics calculations

Ellis *et al* estimate that, over a property price cycle, at its worst, 84 per cent of loans to property developers would enter negative equity.³⁸

³⁸ Property Market Cycles as Paths to Financial Distress, Luci Ellis, Mariano Kulish and Stephanie Wallace, 2012

Figure 9: Estimated property prices and bad loans to property development firms

Source: Property Market Cycles as Paths to Financial Distress, Luci Ellis, Mariano Kulish and Stephanie Wallace, 2012

For the purpose of our modelling we assume that loans going into negative equity equate to a firm going bust. Given that the housebuilding sector has already faced considerable turmoil following the credit crunch and a considerable number of housebuilders have already gone bust, we would expect the UK housing market to be towards the right hand side of the diagrams above, i.e. past the worst stage of the cycle. On this basis, to illustrate the potential magnitude of land that could become available under this assumption, we assume that five per cent of sites enter negative equity over the course of the next two to three years.

Combining this five per cent figure with the average undeveloped schemes per firm, we estimate that the number of schemes that would become available as a result of administrators releasing distressed land to market more quickly as follows:

Table 4: Number of schemes released to market from distressed land over the next 2-3 years

Size of scheme	No. of schemes	No. of properties
<10 units	27	137
10-99 units	224	10,102
100-999 units	55	24,571
1000+ units	1	1,517
Total	307	36,326

Source: Europe Economics calculations

4.4.3 Mechanisms of change

This option would involve the creation of specific, enforceable regulations for a new public body that would act in the event that distressed land was not sold quickly enough by administrators. Specifically, this would involve defining an appropriate amount of time in which distressed land would need to be released to the market. The public body responsible for the special administration regime would have to ensure the return of land held by zombie housebuilders to the market as soon as is reasonably practicable, and ensure timely engagement with the relevant parties and public bodies to ensure that there is no delay in releasing the land to the market.

4.5 Option 5: Change of Use Taxation

This option is designed to discourage the hoarding of land by introducing the relevant change of use taxation as soon as planning permission is granted.

4.5.1 Description

At present, taxes on property are levied on the whole value of real estate, i.e. the combination of land, buildings, and improvements to the site. Under this option, land would be taxed on the basis of the status of the land, rather than on a transactional basis; specifically, the relevant change of use taxation would be applicable as soon as planning permission is granted, rather than when the change of use occurs. So, for example, if planning permission is granted to a housebuilder to build a certain number of homes on a site, the housebuilder would be required to pay the liable council tax on those properties regardless of whether or not the properties have been built and sold or let (after allowing for a reasonable period for construction).

Non-domestic rates for empty properties

In April 2008 the Government reformed empty property rate relief in order to provide incentives to bring empty property back into use, in a move to increase the supply of premises to let, thus potentially reducing business rents, as well as bringing forward brownfield sites for re-development, and so reducing the need for new development on greenfield land.

Most property that has been empty for more than three months or, in the case of industrial property, for more than six months will no longer receive relief from rates. After the initial three or six month rate-free period expires, empty properties are liable for 100 per cent of the basic occupied business rate (unless it qualifies for the new zero rate provided by the Rating (Empty Properties) Act 2007).

In April 2011 the Chancellor reduced the threshold rateable value on which empty rates would become liable from £18,000 to £2,600. Therefore, any empty business property with a rateable value of greater than £2,599 will pay unoccupied business rates.

4.5.2 Potential impact

Pros

The principal advantage of this option is, of course, that it would incentivise more responsive supply-side behaviour by making it efficient to develop in some instances. For example:

- Housebuilders tend to build out larger sites over a period of time, to ensure that they have sufficient development capacity “in the pipeline”. These plots could be built out more quickly if the tax meant that it was no longer viable to build out the site at the baseline rate.
- Land held by housebuilders could become available if the incremental cost of the tax meant that the return for a certain development was no longer sufficient to cover that firm’s cost of capital. This land would then become available for a more efficient firm.
- Land held by non-housebuilders, e.g. public land, could also become available as a result of this option if the incremental cost of the tax outweighs the benefit of expected increases in land value.

An increase in land availability could also reduce the price of land, making it easier for smaller firms to enter the market. Overall, this may have a positive impact on the resilience of the market in the longer term.

It may also be possible for LAs to guide development by altering the tax for different types of property, or in different areas.

Cons

To the extent that a link between house prices and land value persists, the gains from holding land may outweigh the incremental cost from tax, unless taxes are very high, which could ultimately hinder business as some holding of land is inevitable given construction time lag.

The incremental cost of the tax could be prohibitive and serve as a barrier to entry which may or may not outweigh the reduced barriers from potentially increased availability of land.

This option may also dissuade more speculative developments. For example, if a developer anticipates that it will be possible to sell a property almost immediately once that property is complete, there will be an incentive to develop quickly. However, if, as may be the case outside London and the South East, there is a risk that the developer cannot find a tenant/buyer immediately, the developer may choose not to develop in the first place in order to avoid the risk of sitting on empty properties.

There is also a risk that differentiated council taxes for different types of properties could drive investment in certain types of housing which may make supply less responsive to demands for certain types of housing.

Impact

In order to illustrate the potential impacts of introducing a tax that would be payable regardless of whether land is developed or not, we develop the simple model described earlier (see Option 3 “avoiding house price cycles”). In this model, housebuilders still maximise their profits subject to the cost of purchasing land, the cost of construction and the cost of finance, and constraints on the maximum number of houses that can be built in a year and the total size of a site. However, the housebuilder now faces an additional cost in the form of council tax for all properties which could be built, rather than just those which have been built. Further details of the model can be found at Appendix I.

Assuming an average Band D Council Tax rate of £1,444, we find the following results:

Figure 10: The impact on supply of introducing taxation on undeveloped properties



Source: Europe Economics calculations

In all cases, i.e. for small, medium and large sites, there is no reduction in the number of houses being built over the 10 year period. However, as can be seen above, the policy option results in a change in the profile of building. For small firms, we see a small incremental increase in the number of properties being built in earlier years, which could amount to nearly 13,000 additional homes built in the first three years (based on the number of housing starts in 2012-13); however, we then see a drop off in the medium term (relative to the baseline in which there are no changes to the tax regime). For medium-sized firms, we see a considerable increase in build out rates in the short and medium term, which could amount to nearly 20,000 additional homes built in the first five years (based on the number of housing starts in 2012-13). For large firms, our modelling suggests a smoothing in build rates for larger firms, due to the additional cost associated with building out a larger site, when it is not viable to build out the whole site in one go (though, in practice, it may be possible for large firms to divide large sites into smaller plots and charging the tax on

the smaller sub-sites in sequence). This suggests that such a policy may prove to be most effective for medium sized firms, where there is sufficient scope to build out faster. However, a targeted change in taxation could then reduce incentives to develop medium sized plots.

4.5.3 Mechanisms of change

This would probably involve legislative change, and would require LAs to assess the appropriate level of council tax at the relevant sites and the Valuation Office Agency to do the same for business rates on the basis of planning permission. The LAs would also be responsible for collecting these additional levies.

4.6 Option 6: Capital Requirements

This option is designed to ease credit constraints for housebuilders by ensuring that the capital requirements for nationalised lenders reflect systemic risks associated with housebuilding sector, taking into account systemic risks from not having enough housing.

4.6.1 Description

CRD IV is made up of the Capital Requirements Regulation (CRR), which is directly applicable on firms across the EU, and the Capital Requirements Directive (CRD), which must be implemented through national law. The new regulations include enhanced requirements for quality and quantity of capital, a basis for new liquidity and leverage requirements, new rules for counterparty risk, and new macro-prudential standards including a countercyclical capital buffer and capital buffers for systemically important institutions.

Under the new regime, banks will be required to set aside good quality capital amounting to a minimum of 8 per cent of their risk-weighted assets, with 56 per cent of this in the form of Tier I capital,³⁹ which must be reasonably liquid (i.e. readily convertible into the cash needed to pay depositors and creditors in an emergency).

Risk-weightings for bank assets are designed to shift financials away from set levels of required capital, tailoring them to the perceived amount of risky assets held by banks. However, while the principle is clear, the concept is not clearly defined. In particular, banks are required to hold capital which corresponds to the perceived level of risk.

In this way, it would therefore be possible to alter the amount of capital that should be held depending on the perceived risks associated with housing. Under this option, the Government would take into account the systemic risks associated with a housing shortage when calculating the capital requirements for nationalised lenders, i.e. the greater the shortage of housing, the greater the risk to the wider economy, and therefore, the more capital that would need to be held by these banks. In this way, these nationalised banks would be incentivised to make more loans available to housebuilders in order to reduce the amount of capital that needs to be held.

Different approaches taken to risk weighting by banks

In July 2013 the Basel Committee on Banking Supervision published its first report on the regulatory consistency of risk-weighted assets (RWAs) for credit risk in the banking book.⁴⁰ The study of 32 global banks found material differences in how much capital lenders thought was needed to guard

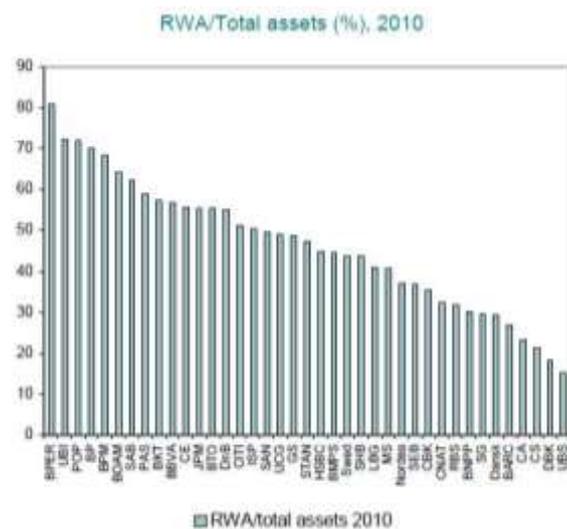
³⁹ Tier one capital mainly consists of shareholders' equity, disclosed reserves and other high-quality assets.

⁴⁰ Basel Committee on Banking Supervision, Regulatory Consistency Assessment Programme (RCAP): Analysis of risk-weighted assets for credit risk in the banking book, July 2013

against possible losses on assets such as corporate and household debt. The variations meant that some lenders were backing investments with as much as 20 per cent more capital than other banks.

The study finds that European banks generally apply lower risk weights to their holdings of bank-issued debt than lenders based elsewhere. The results also show that corporate debt and retail investments such as mortgages are the greatest source of variations in risk weighting.

The diagram below shows differences the level of RWA as a proportion of total assets for a range of banks.



Source: Exane BNP Paribas

4.6.2 Potential impact

Pros

The main advantage of this approach is that it would ease credit constraints for housebuilders, thus reducing barriers to entry with respect to access to finance. This is particularly important for SMEs who are largely reliant on bank loans as they are unable to issue bonds to raise finance and, in many cases, are likely to have limited equity which they can draw on. This is important for responsiveness to supply, as smaller housebuilders will tend to develop smaller sites, and these sites will typically be built out more quickly than larger sites which are being developed by larger builders.

In addition to reducing barriers to entry, this option has the potential to reduce barriers to growth for smaller developers seeking to expand. This could lead to a less concentrated market, as these smaller firms grow (perhaps into medium-sized, regional housebuilders) and compete more effectively with larger developers. As shown in option I (“diversity of supplier”), a less concentrated market may, in theory, lead to greater output, as firms accept lower margins in a more competitive environment. Ultimately, this could improve the resilience of the market as competition increases and only the most efficient firms (in terms of both cost and quality) are able to compete.

Cons

Risk weighting of banks’ assets is, as described above, a difficult and, to some extent, subjective exercise. Poor implementation of this option could result in inefficient entry and/or sustained activity by inefficient firms, which could be damaging to the sustainability of the sector and the responsiveness of supply.

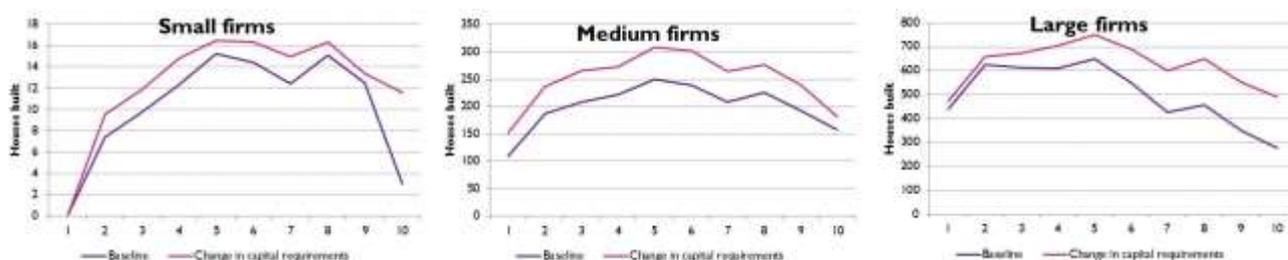
Further, poor implementation could result in inadequate risk assessment by banks, resulting in bad debts for banks/providers of finance, which could have systemic implications.

This option may also entail substantial implementation costs, for example, costs for training of staff in how to develop risk models and the development of new systems.

Impact

In order to illustrate the potential impacts of easing credit constraints for housebuilders, we develop the simple model described earlier (see Options 3 and 5). In this model, housebuilders still maximise their profits subject to the cost of purchasing land, the cost of construction and the cost of finance, and a constraint on the maximum number of houses that can be built in a year. However, the housebuilder now has an option to build an additional number of houses using the additional financing that becomes available, thus increasing the total number of houses that can be built. It is assumed that this additional financing is available at a higher cost than the financing that is otherwise available. Further details of the model can be found at Appendix I.

Figure 11: Impact of easing credit constraints on supply

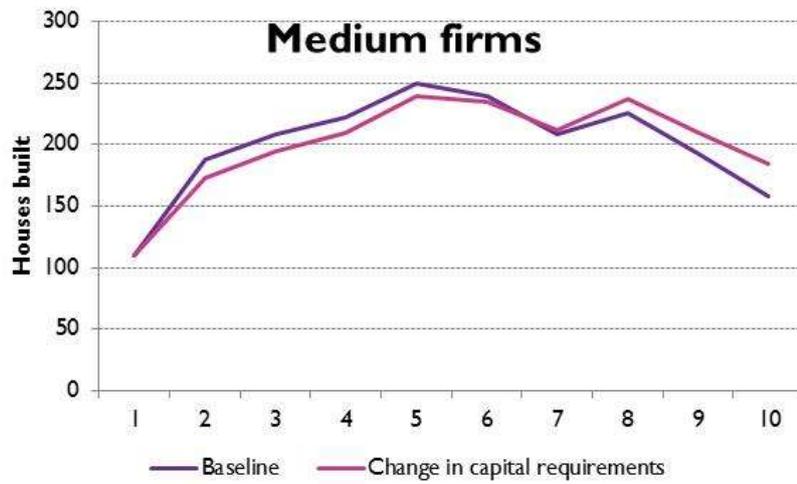


Source: Europe Economics calculations

As can be seen in the charts above, this option has a pronounced effect in all cases, increasing supply overall, but also increasing the build out rates in early years (relative to the baseline in which additional financing is not available, as capital requirements are unchanged). Over a 10 year period, based on the number of housing starts in 2012-13, we might expect this option to result in an additional 50,000 homes built by small firms, 75,000 homes built by medium-sized firms and 190,000 homes built by large firms.

However, it should be noted that this is a stylised representation of the possible effect of easing credit constraint. Another possibility is that an increase in the availability of financing for housebuilders results in an effective decrease in cost of capital. One possible repercussion of a decrease in cost of capital is that it reduces the cost of waiting to build, i.e. it may increase incentives to hold on to land (e.g. in expectation of higher house prices in the future), as shown in the diagram below:

Figure 12: Impact of reduced cost of capital on supply



Source: Europe Economics calculations

4.6.3 Mechanisms of change

This option would require the development of existing risk models for nationalised lenders. The modifications to account for the risk associated with not having enough housing would have to be carried out within the confines of the EU Capital Requirements Directive and the UK's implementing legislation.

5 Policy Recommendations

In the light of the policy options analysed in the previous section we present some policy recommendations. Whilst there may be merit in all of the options that have been analysed, and while some options may have the greatest impact if used in conjunction with other options, at an individual level some of the policy options considered are likely to have a greater benefit than others.

In our view the most important policy option is **Option 3, i.e. introduction of a stronger principle of avoiding the creation of house price cycles through policy**. While this may be considered to be a bit of a “vanilla” option, we believe that it is fundamental to address this issue if we are to see a more positive supply response. Focussing policy on more niche aspects of the market may yield some benefit, but until the impacts of policy on house price volatility are addressed, we are likely to see an asymmetric supply response.

Specifically, market instability makes anticipating future price patterns difficult and creates significant price risk for market participants. As such, one way for housebuilders to compensate for this risk is to diversify their portfolios, i.e. by having multiple sites which will be built out at different rates, such that the number of properties facing expected gains outweighs the number of properties facing expected losses. The consequence of this approach is that housebuilders must have sufficient financing to fund this diversification, thus making it more probable that larger housebuilders will be well placed to “weather the storm”, whereas smaller housebuilders who do not have sufficiently “deep pockets” will face difficulty.

Our analysis shows that the effect of reduced volatility is to smooth the optimal construction path, i.e. the build out profile, resulting in a greater number of properties built in earlier years. Our results suggest that reducing house price volatility reduces the incentive to wait to build, as there is less incentive to wait for a large price increase, and there is less need to build houses in certain years to minimise losses incurred in other years when the price falls. We note that this impact is dampened when housebuilders face uncertainty; however, if this policy option was successful in avoiding the creation of house price cycles through policy, this would go some way to reducing the uncertainty faced by housebuilders.

Related to this policy option is **Option 6, i.e. the Government ensures that capital requirements reflect systemic risks associated with the housebuilding sector, taking into account the systemic risks from not having enough housing**. As described above, a reduction in house price volatility should reduce the need for housebuilders to have “deep pockets”. However, as things stand, access to sufficient finance is clearly an obstacle to housebuilding. This option may be successful in increasing the availability of finance to housebuilders, particularly small and medium sized housebuilders that are more reliant on loans from banks.

However, this option would ideally be implemented once Option 3 (“avoiding house price cycles”) had successfully been implemented, because Option 6 may result in a lower cost of finance, which could increase incentives to wait for the top of the cycle to build. Nonetheless, it may yet be some time before lending returns to pre-crash levels, and this option may provide much needed access to finance in the short run, having a pronounced impact on supply, as shown by our results.

Option 4, i.e. creation of a special administration regime for “zombie housebuilders” whereby the Crown reasserts its fundamental ownership of the land if a housebuilder becomes financially distressed, may prove to be useful by releasing land to the market which is being held by housebuilders in financial distress (e.g. housebuilders that are insolvent). This option would probably only have limited impact in the near term if it was implemented now; we estimate that a further 36,000 properties could be built across the nation. However, this option is likely to be more important in the future (i.e. if there were to be another

downturn in the sector). Nonetheless, it would be important to pursue such an option sooner rather than later to provide appropriate signals to the market in advance of another downturn.

Similarly, **Option 5, i.e. introduction of the relevant change of use taxation as soon as planning permission is granted**, may be of interest in the future, if, for example, Option 3 was successfully implemented and house cycles became a less prominent feature of the market. As our results show, given the typical level of council tax that would be payable, this policy may not be particularly effective (as things stand) for small or large housebuilders, and it may only achieve the desired result for medium-sized builders. This may not necessarily be a bad thing, as it may encourage the re-emergence of regional medium-sized firms, thus increasing competition in the sector. It is also possible that a greater number of properties being built in earlier years by medium-sized firms could foster greater confidence in the sector, which could in turn result in a greater number of homes being built in the medium term, particularly if we saw a smoothed price cycle. However, it is likely that any policy designed with medium-sized firms in mind would be fraught with difficulty.

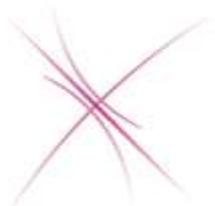
Option 1, i.e. introduction of diversity of supplier guidelines or rules in procurement policy for the HCA as it looks to bring surplus public sector land back into use, is most likely to have a positive net impact in the medium- to longer-term, by increasing competition in the sector, which could lead to an increase of up to 30 per cent over the longer term. However, it is possible that this option may serve to ease some local bottlenecks without being effective nationwide, unless measures are taken to address the impacts of house price volatility on the supply response.

Option 2, i.e. assembly of sites owned by the public sector to create a property portfolio for LA pension funds could have a small beneficial impact on the responsiveness of supply. On the basis of the Manchester experience, our analysis suggests that such an option could lead to 24,000 properties built if the option was rolled out nationally (though these are not necessarily net additions, as the LAs could develop this land anyway). While this is a relatively small impact, the appetite for using institutional investment – including pension funds – for housing is growing. While not necessarily appropriate for all areas, specific cities may well benefit from such an investment portfolio and may be able to encourage private investment also.

In conclusion, we see it as vital to the housebuilding sector, that the issue of policy-induced house price cycles is addressed. Until house price volatility can be reduced, thus reducing the risk faced by housebuilders, the sector is likely to continue to suffer from an asymmetric supply response whereby supply constraints could prevent expansion of construction on the upside whereas there is no such restraint on the downside.



Technical Appendix



Europe Economics

Appendix 1: Technical Details

In this Appendix we provide some of the technical detail behind the quantification of impacts presented in Section 4.

- First we set out the basic model we have constructed to illustrate the impacts of implementing Options 3, 5 and 6.
- Second, we set out how this basic model has been developed to generate results for Options 3, 5 and 6.
- Third, we present the theoretical framework underpinning the result derived in Option 1, i.e. the relationship between concentration (in the form of HHI) and output.

Basic Model Used in Options 3, 5 and 6

Define:

$$\pi = \sum_{t=0}^n \text{Present value of profits}$$

$$n = 10$$

$Q(t)$ = Houses built by a firm at time t

$X(t)$ = maximum number of houses that can be built by a firm over n periods

$Y(t)$ = maximum number of houses that can be built by a firm in period t

$P(t)$ = price at time t

$C(t) = c_1(t) + c_2(t)$, where c_1 is a construction cost and c_2 is a land cost.

Financing costs for c_2 are incurred over the entire construction period.

Optimisation problem:

$$\max_{Q(t)} \pi\{P(t), Q(t), C(t)\}$$

$$\text{s.t. } Q(t) \geq 0$$

$$Q(t) \leq Y(t)$$

$$X(n) \geq 0$$

$$Q(t) \leq X(t)$$

This constrained optimisation problem is solved separately for small-, medium- and large-sized firms.

Assumptions

In solving this constrained optimisation, we make the following assumptions:

Table 5: Assumptions made in modelling

Variable	Small	Medium	Large
Max. number of houses that can be built by firm	100	2000	5000
Max. number of houses that can be built in a year	50	1000	2500
Unit land cost ¹	70,000	70,000	70,000
Unit construction cost ²	140,000	120,000	100,000
Cost of capital ³	13.0%	13.0%	13.0%

Notes:

1. Data from the VOA suggests that the average price of land in England (excluding London) was £1.75m per hectare in 2010. Assuming 25 properties built per hectare, we arrive at a land cost per property of £70,000.
2. Data from the Land Registry, Home Builders Federation and National Self-build Association suggests that the average cost of a self-build home is £146,000, when the work is contracted out to a builder.⁴¹ We assume £140,000 as the cost per property for small builders, and we assume some economies of scale for medium and large builders, resulting in a lower average cost.
3. The cost of capital for housebuilding is based on a selection of listed housebuilders, taken from Bloomberg.

We note that some of these assumptions may not be representative of the array of highly idiosyncratic production possibilities in the housebuilding sector, particularly for SMEs, and it has not been possible to fully calibrate this simple model. However, we believe that these assumptions provide a reasonable base for quantification of the impacts of implementing Options 3, 5 and 6. Furthermore, it is the *incremental* impacts, i.e. the differences between the baseline and the option, that we are interested in, and the assumptions set out in the table above have been applied consistently in all cases.

Option 3

Option 3 is concerned with the introduction of a stronger principle of avoiding the creation of house price cycles through policy. This is modelled through reduced volatility, i.e. by adopting a different profile of prices, $P(t)$.

Option 5

Option 5 is concerned with the introduction of the relevant change of use taxation as soon as planning permission is granted. This is modelled as an additional cost, whereby council tax is levied on all the properties that could be developed, i.e. the full size of the site, not just those properties that have been built.

Option 6

Under Option 6 the Government would ensure that capital requirements reflect systemic risks associated with housebuilding sector, taking into account systemic risks from not having enough housing. This is modelled as a change in the constraint on the maximum number of properties that can be built by a firm. Under this option the housebuilder has an option to build an additional number of houses using the additional financing that becomes available, thus increasing the total number of houses that can be built. It is assumed that this additional financing is available at a higher cost (of 20 per cent) than the financing that is otherwise available (13 per cent).

Relationship between Concentration and Output used in Option 1

Option 1 involves the introduction of diversity of supplier guidelines or rules in procurement policy for the HCA as it works with the Government to bring surplus public sector land back into use.

⁴¹ See: <http://www.bbc.co.uk/news/magazine-14125196>

We note that this option would be unlikely to lead to any net additions to housing supply in the short-term. However, to illustrate the possible benefits of increasing diversity over the medium- to long-term, we calculate the Herfindahl–Hirschman Index (HHI) for the housebuilding sector (using NHBC data) and compare it to the HHI for suppliers in the groceries sector.

Consider the situation of quantity competition (i.e. a Cournot model) with homogeneous products and aggregate demand $Q = D(p)$. It is a well-known result that in equilibrium, the Lerner Index is proportional to the market share and the inverse of the price elasticity of demand:

$$\frac{p - c_i}{p} = \frac{s_i}{\varepsilon}$$

Where:

$$s_i = \frac{q_i}{Q}$$

If we define the average unit cost as:

$$c = \sum_i s_i c_i$$

And take a weighted average of the Lerner indexes for the industry, we find that:

$$\frac{p - c}{p} = \frac{H}{\varepsilon}$$

Therefore, total average profit is proportional to the product of the HHI and the total revenue of the market:

$$\pi = H \frac{pQ}{\varepsilon}$$