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Everyone wins? UK housing provision, government shared equity loans, and the reallocation of risks and returns after the Global Financial Crisis

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ABSTRACT

The 2008 Global Financial Crisis was an extreme shock to the UK housing market. Frozen international capital markets resulted in highly restrictive mortgage lending by UK retail banks, and the collapse in homebuying threatened the heavily indebted housebuilding industry. To counteract the threat, between 2008 and 2013, the UK Government issued shared equity loans requiring matching loans from housebuilders alongside retail bank mortgages and deposits from homebuyers. In 2013, it introduced a new shared equity scheme, Help to Buy (HtB), which no longer required matching loans from housebuilders. This article explores the distribution of the benefits of the UK Government's issuance of shared equity loans for homebuyers to buoy demand through its effects on the UK's three largest publicly listed housebuilders. The article found that the housebuilders increased their output by 29,000 homes and generated an additional £1.4 billion in cash between 2013 and 2017 as a direct result of HtB. Over the same period, the housebuilders paid shareholders £3.5 billion in dividends and their share prices rose by an average of 140 per cent, suggesting a clear transfer of income and wealth from taxpayers to housebuilders to shareholders and the emergence of a new mode of housing provision.

KEYWORDS: Housing policy; UK housebuilders; shared equity loans

Introduction: the Global Financial Crisis (GFC) and the UK housing market

In September 2007, Northern Rock, a retail bank and mortgage lender, could no longer access financing from the capital markets, and in February

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2008, it was nationalised by the UK Government. As the GFC intensified, several more banks were rescued and then effectively nationalised by the Government. The UK housing market was also severely impacted by the widespread economic and financial uncertainty of the GFC. In 2008, the value of new mortgage commitments halved and high loan-to-value (LTV) mortgages, which required minimal deposits, largely disappeared (Bank of England (BoE), 2021). Average house prices fell from £190,000 in September 2007 to £150,000 in March 2009 (Office for National Statistics (ONS), 2021), and the volume of residential property transactions almost halved from 1.6 million in 2007 to 850,000 in 2008 (HM Revenue and Customs (HMRC), 2021). In response, private sector housebuilding also halved: new housing starts in England fell from 150,000 in the year ending June 2008 to only 65,000 in the following year (DLUHC and MHCLG, 2021). To buoy demand and help homebuyers with small deposits obtain mortgages, the Government alongside several major housebuilders offered shared equity loans (SELs).

Shared equity schemes, including SELs, are used to increase homeownership and are relatively widespread internationally, which makes the UK experience relevant to many countries. Whitehead and Yates (2007) note that Government-led shared equity schemes are often found in countries with Anglo-Saxon legal traditions, including the US, Malaysia, Australia, and the UK, although the specificities like the scope and scale of those schemes clearly differ from country to country.

This article looks into the UK Government policy of using SELs to support homebuyers and the housebuilding industry, starting from 2008 onwards, with a view to understanding how much of the benefits of that policy were captured by housebuilders and their shareholders. To develop its argument, the article looks at government policy throughout this period and analyses the financial accounts of the three largest listed UK housebuilders: Persimmon, Barratt Developments (Barratt), and Taylor Wimpey.

Accordingly, the next section provides a discussion of the role of SELs in housing provision and the ways they are expected to shape housebuilders' decisions and ultimately housing supply. This is followed by a summary of UK Government housing policies post-GFC, which sets the context for the SEL schemes examined in the article. The section after presents the methodology used to analyse the three housebuilders' accounts. To investigate the impact of SELs on the housebuilders' output as well as their dividend payments, the authors use additionality, i.e., the number of house purchases that would not have otherwise taken place without them (Finlay et al., 2016; Whitehead et al., 2018). The empirical section of the article examines how the three housebuilders used SELs and what their impacts were on financial risk allocation. This is followed by a more detailed discussion of the impact of the leading Government SEL scheme, Help to Buy (HtB) in England, and its additionality effect on housing output and returns. Finally, a concluding section highlights the main findings and puts forward general conclusions.

Housing provision and shared equity

The GFC and the frozen capital markets had a tremendous impact on UK housing provision, and the response of the housebuilders as well as the Labour, Coalition, and Conservative Governments was to undertake their own lending through SELs. These loans represented a combination of new sources of capital to finance homebuying, and the structure of the shared equity schemes resulted in new allocations of risks and rewards.

Discussing networks of housing provision following the GFC, Ball (2020) notes how it is the 'precise influences' of organisations in housing provision 'that matter to outcomes' in the context of prevailing rules and practices, which these organisations themselves help create. He argues that government policies are formed within political processes that are not isolated from networks of housing provision; organisations within the networks can strongly influence policies through lobbying and by simply existing as key elements in housing delivery mechanisms. Ball specifically refers to the GFC's 'sudden negative demand shock'. Ball asks whether there were mass mortgage defaults or whether there were 'buffer systems and feedback effects' that offset them. Indeed, a combination of state and private sector efforts did ease the risk of large-scale defaults. Similarly, the disappearance of mortgage credit was another manifestation of the sudden negative demand shock of the GFC, and a combination of state and private sector SEL schemes offset the impact of severely reduced lending. This took place in a context where supply-side state subsidies, which mainly supported the production of social-rental dwellings, had reached a low of 4.3 per cent (approximately £1.1 billion) of total housing subsidies in 2016 (Stephens et al., 2022).

Historically, in the networks of provision approach, the state appears 'only in so far as it plays a direct role' in providing housing, e.g., as a developer-owner of (social) housing (Ball, 2020). The state also 'plays key roles of regulation across many spheres (e.g., land, building, markets, use and finance) and as a rule setter related to subsidies and taxation'. Therefore, it could be argued the role that the state carved for itself after the GFC led to the formation of a network of provision in which the state is directly involved in housebuilding; this time not in the regulation, production, and funding of social rental housing, but in the regulation and funding of speculative (but de-risked) housing for owner-occupation.

Remarkably, the literature has little to say on housebuilders, who directly benefit from the sales that result from the state's lending. While Archer and Cole (2021) analyse the financial performance of housebuilders and capital flows between the housebuilders and their shareholders, their analysis does not cover the allocation of risk and returns in the specific context of SELs.

Certainly, as one major purpose of SELs is to make homeownership more accessible, the literature centres on risk and returns for marginal homebuyers, who require assistance to become homeowners, and the

state, which provides the assistance to increase homeownership. However, in the post-GFC context of the UK, the focus was less on using SELs to help marginal homebuyers into homeownership; rather, it was to help homebuyers into new-build homeownership so they could support the housebuilding industry. Regardless of their motivation, SELs are a subsidy, and MacDonald (2013) states that ‘the basic tenet of all subsidised access schemes is the relinquishing of some aspect of the purchasers’ use and occupation rights in exchange for lower entry costs to homeownership’, and as such, there are ‘a number of trade-offs in terms of rights and responsibilities’ and ultimately risk and returns.

Whitehead and Yates (2007) observe that a household’s single largest asset is normally its house, and a homebuyer normally uses the full value of this asset as collateral for a mortgage. Consequently, a household can be ‘heavily geared’ and exposed to significant house price risk (Pinnegar et al., 2008; Whitehead & Yates, 2007). Whitehead and Yates (2007) and Pinnegar et al. (2008) believe that individual households cannot efficiently bear this risk, and view SELs as a mechanism for homebuyers to share house price risk with larger financial institutions, which are better able to bear this risk, in exchange for giving up rights to part of their home equity.

Through its SELs, the UK Government shares house price risk between its agencies and, depending on the scheme, the housebuilders, and it must be asked whether they are better suited to bear this risk, and more broadly, how do SELs fit with their natures and the interests of their stakeholders, i.e., shareholders and taxpayers.

The bearer of risks should be compensated with returns, and, albeit in the context of models of affordable homeownership but a relevant point nonetheless, Jacobus and Cohen (2007) assert that any gains from rising house prices in shared ownership schemes in which the state supports the homeowner should be shared between the state and the homeowner, and, furthermore, the state can use its gains to help more homebuyers. Indeed, SELs involve risky investment in housing by the national state for potential returns that depend on the housing market. Although, endeavouring to save its housebuilding industry by supporting homebuyers first and hoping for gains second, the UK Government has become a property speculator. This speculation narrative is reinforced by Beswick and Penny (2018), who identify a ‘financialised municipal entrepreneurialism’ in which the local state in London, under the pressures of a housing crisis and fiscal austerity and thus needing returns to achieve its policy aims, has also become a property speculator. In both situations with different motivations, the state has become a speculator in the built environment, and ‘to play the game’, it has to invest in the built environment, which benefits the producers of the built environment, i.e., the housebuilders, regardless of how the game turns out for the state.

Using financial simulations to analyse various shared equity schemes offered by housing corporations in the Netherlands, Kramer (2008) found that the arrangements that were based on market values exposed the

housing corporations to the most financial risk. In addition to asset price risk, lending institutions become exposed to the financial risk of uncertain repayments, including credit risk and prepayment risk (Pinnegar et al., 2008). Although the UK Government's largest SEL scheme, HtB, did not target marginal homebuyers, who by their nature present more credit risk, lending institutions were exposed to behaviour risk as it was uncertain how borrowers would act in an SEL arrangement versus conventional mortgage borrowing (Pinnegar et al., 2008; Whitehead, 2010).

The UK housebuilders entered the GFC heavily in debt, and to generate cash from a very weak housing market to service their debts, some housebuilders 'induced sales' by offering SELs despite their risk (Payne, 2015, 2020). Ultimately, the housebuilders' shareholders benefit from additional homebuying supported by SELs, and Archer and Cole (2016, 2021) establish a link between housebuilders and shareholders in a context of financialisation, which maintains that housebuilders focus on profit margins and prioritise the maximisation of shareholder value. As profits grew following the GFC, instead of reinvesting the profits to increase housing output or improve productivity, the housebuilders increased dividend payments to shareholders (Archer & Cole, 2016, 2021). Archer and Cole (2016, 2021) recognise that in principle dividends are 'an integral part of financing of new housing supply' but argue that in practice 'the financing of private housebuilding is more about creating shareholder value than increasing housing supply'. Indeed, Archer and Cole (2016, 2021) identify 'a perverse circularity in the relationship between these financial interests [institutional investors] and the government': the government sells bonds to institutional investors to raise funds that are then used to increase affordable housing, while at the same time, these institutional investors invest in housebuilders, requiring them to increase sales prices to increase profit margins, which decreases housing affordability. A similar type of circularity exists in HtB, where the government (faced with unaffordable housing and insufficient production) fuels demand by offering SELs while de-risking housebuilders with limited net impact on housing production.

The discussion above makes clear a strong relationship between financial incentives to housing production and homebuying such as SELs and the redistribution of risks and rewards among the different players in housing provision, which over time might have a range of impacts on housing output, not always foreseen or intended. The next section looks at how these incentives were introduced in the UK.

UK Government intervention in the housing market

The Labour Government began large-scale, demand-side government intervention in the UK housing market in autumn 2008 during the GFC, including help for the housebuilding industry, which was 'experiencing more challenging business conditions' (Department for Communities and Local Government (DCLG), 2008a, 2008b). Although similar to past schemes,

Labour's new SEL scheme, HomeBuy Direct, was more widely accessible and marked a renewed Government interest in directly financing housing provision and having direct exposure to housebuilding with the potential to be comparable in scope and volume to social housing provision by Local Authorities before the 1980s. In effect, this is a newly configured network of development actors (Ball, 2020), including central government agencies, banks, housebuilders, and owner-occupiers, whose involvement in housing production is shaped by government regulatory and financial intervention.

HomeBuy Direct

Labour's HomeBuy Direct scheme was introduced to 'support the [housebuilding] industry by identifying buyers for their new homes' and 'help the housebuilding industry weather difficult conditions, so that, when the market recovers, they [would be] ready to expand and get back on with building the new homes the country needs for the long term' (Department for Communities and Local Government (DCLG), 2008a).

HomeBuy Direct offered SELs to first-time buyers to purchase new-build homes, and each SEL, equalling 30 per cent of the home's value, was jointly funded by the Government and the housebuilder, which had to match Government's funding (see Table 1). The SELs entitled the Government and housebuilders to a share of future sale proceeds through second charges on the homes. When a home was sold above its purchase price, the Government and housebuilders were due 30 per cent of the selling price. However, as the retail banks' mortgages were secured through first charges, if a home was sold below its purchase price, the Government and housebuilder would only have what remained after the mortgage was repaid, which could be less than the amount of their original SEL.

By spring 2009, over 130 housebuilders were involved in HomeBuy Direct, and over the course of the scheme, Barratt and Persimmon completed a total of 7,500 homes using HomeBuy Direct SELs. The scheme ended in autumn 2010 following the election of the new Coalition Government.

FirstBuy

In its new housing strategy, the Coalition Government (HM Government, 2011) declared that 'lenders won't lend, so builders can't build, and buyers can't buy' and introduced the FirstBuy scheme in spring 2011, which provided new-build homebuyers with 20 per cent SELs (see Table 1).

The scheme also aimed 'to maintain capacity in the housebuilding industry in the short-term', and support between 5,000 and 10,000 additional housebuilding jobs (HM Government, 2011). By autumn 2011, FirstBuy involved over 100 housebuilders. Taylor Wimpey and Persimmon

Table 1. Post-GFC, UK Government-led SEL schemes, 2008–2017.

| Scheme | HomeBuy Direct | FirstBuy | Help to Buy (HtB) |
|---|---|---|---|
| Government | Labour | Coalition | Conservative |
| Introduction date | Sept 2008 | April 2011 | April 2013 |
| End date | Sept 2010 | Planned end date of March 2014, replaced by HtB in April 2013 | Extended beyond 2017 to March 2021 (based on eligibility requirements below) |
| Total funding committed | £480 million | £530 million | £22.1 billion* |
| Total number of assisted homebuyers | 12,240 | 11,600 | 328,500* |
| Government SEL | 15 | 10 | 20** |
| (maximum % of home value) | 15 | 10 | 0 |
| Homebuilder SEL | 5 | 5 | 5 |
| (maximum % of home value) | 5 | 5 | 5 |
| Homebuyer's deposit | 65 | 75 | 75 |
| (minimum % of home value) | 65 | 75 | 75 |
| High street bank mortgage | | | |
| (% of home value with deposit) | | | |
| SEL interest free period | 5 years (years 1 to 5) | 5 years (years 1 to 5) | 5 years (years 1 to 5) |
| SEL annual interest rate after interest free period | 1.75% in year 6, year 7 = 1.75% × (1.00 + RPI _{year 7} + 1%), and year n = year (n-1) × (1.00 + RPI _{year n} + 1%) thereafter | 1.75% in year 6, year 7 = 1.75% × (1.00 + RPI _{year 7} + 1%), and year n = year (n-1) × (1.00 + RPI _{year n} + 1%) thereafter | 1.75% in year 6, year 7 = 1.75% × (1.00 + RPI _{year 7} + 1%), and year n = year (n-1) × (1.00 + RPI _{year n} + 1%) thereafter |
| SEL term | 25 years or when home is sold | 25 years or when home is sold | 25 years or when home is sold |
| New-build houses only? | Yes | Yes | Yes |
| Maximum house price | £300,000 | £280,000 | £600,000 |
| First-time buyers only? | Yes | Yes | No |
| Maximum household income | £60,000 | £60,000 | No income cap |

*Up to March 2021.

**Maximum 40% of home value in London.

Sources: Data taken from published UK Government media as detailed in references.

built a total of 3,500 homes through FirstBuy before the scheme was replaced by HtB in 2013.

Help to Buy

In spring 2013, the Coalition Government introduced its HtB scheme for homebuyers in England. Like previous government schemes, HtB provided 20 per cent SELs to homebuyers (see [Table 1](#)). Unlike previous schemes, HtB did not require housebuilders to provide any funding to match the Government's SELs. Indeed, the Government paid its SEL funds directly to the housebuilders. While previous SELs were restricted to first-time buyers with incomes below a specified cap, HtB was open 'to all [home]buyers of new-build homes on all incomes' (HM Treasury and Osborne, 2013). Although a house price cap of £600,000 was set, this cap included over 90 per cent of all homes. Later in 2016, the Government increased the size of HtB loans from 20 per cent to 40 per cent for homebuyers in London. The Welsh and Scottish Governments offered their own versions of the HtB with slightly different homebuyer eligibility requirements and house price caps.

The Coalition Government initially committed £3.5 billion in funding for HtB to help 74,000 households over three years. The then Chancellor, George Osborne, explained that HtB would not affect the deficit as the SELs were 'financial transaction[s], with the taxpayer making an investment and getting a return' (Osborne, 2013). He concluded that HtB was 'a good use of this Government's fiscal credibility' (Osborne, 2013).

The Government soon described HtB as 'an instant hit', and the housebuilders echoed those statements (MHCLG, 2013a). Barratt noted 'very strong' interest in HtB, which 'addresse[d] the issue of lack of mortgage finance at higher LTVs' (MHCLG, 2013b). Encouraged by the prospect of increased sales due to HtB, Barratt advised that it was 'investing in land' and 'expanding the business' (MHCLG, 2013b). Persimmon observed 'a notable increase in customer interest' and 'increased ... build activity to meet this increase in demand' (MHCLG, 2013b). Taylor Wimpey said, 'It [HtB] enables us to build more homes on sites we have already got open, and also gives us more confidence about investing in future sites ...' (MHCLG, 2013b).

In his Budget 2014 speech, Osborne (2014) declared that housebuilding was up 23 per cent and announced an extension of HtB to 2020 with the goal of building another 120,000 homes. In 2015, HtB was extended again, this time to 2021, and the Government provided an additional £8.6 billion for 145,000 new homes (Clark & Lewis, 2016). By autumn 2017, HtB SELs had supported over 130,000 new-build sales, and another £10 billion for HtB was announced in the Autumn Budget 2017 speech of the new Chancellor, Philip Hammond (Hammond, 2017).

The following year, Hammond extended HtB further to spring 2023. However, based on the improving housing market, the HtB scheme was changed: eligibility was restricted to first-time buyers, new regional house

price caps were imposed, and a slightly higher interest rate was charged for repayments starting in the sixth year.

By March 2023, ten years after the scheme was first introduced, HtB SELs are expected to support a total of 462,000 housing completions at a cost of £29 billion to the UK Government (National Audit Office (NAO), 2019).

Methodology

To explore the effects of UK Government SELs on housebuilders, the article follows a case study approach, focussing on the UK's three largest listed housebuilders: Taylor Wimpey, Barratt, and Persimmon.

These three companies were consistently ranked as the top three UK housebuilders by revenue between 2008 and 2017 (see www.theconstructionindex.co.uk and www.house-builder.co.uk). Each housebuilder's output numbered between 9,000 and 19,000 completions each year over the same period and, considering Conservative Government pledges in 2015 and 2017 to deliver 200,000 net additional homes each year, Taylor Wimpey, Barratt, and Persimmon's combined output represented roughly one-fifth of the Government's target (Wilson & Barton, 2021).

As listed companies, the housebuilders are governed by the principles of the UK Corporate Governance Code, which obliges a company's leadership to maximise shareholder wealth in the long term. Financial analysts consider Taylor Wimpey, Barratt, and Persimmon peer companies, and there is some consistency in their strategies to deliver share price growth and dividends.

The financial data for this analysis are drawn from the three companies' publicly available accounts. SELs are considered financial assets, and their value is recorded in each housebuilder's balance sheet. As well, the net value of lending activity is implied by changes in the value of the SELs. Taylor Wimpey (2013, 2017) records SELs as 'mortgage receivables', which comprise 'various historical promotion schemes to support sales on a selective basis'. Barratt (2008) records SELs as 'available for sale financial assets', which are assets that 'principally comprise interest free loans granted as a part of sales transactions that are secured by way of a legal charge on the respective property'. Persimmon describes SELs as 'available for sale financial assets', which are considered deferred receivables.

The period of study is between 2008 and 2017, corresponding to the ten years following the GFC. A comparison can be made between the impact of major Government- and housebuilder-led shared equity schemes in the five-year period between 2008 and 2012, and the impact of the solely Government-led scheme, HtB, in the five years between 2013 and 2017. Although the HtB scheme extends to 2023, the scope of this analysis does not go further due to the unavailability of HtB additionality estimates after 2017.

HtB additionality

The additionality definitions and estimates of Finlay et al. (2016) and Whitehead et al. (2018) for HtB in England between 2013 and 2017 are applied by the authors to analyse the housebuilders' cash from operating activities (before changes in working capital), i.e., notional cash generation from completions that directly results from HtB.

Finlay et al. (2016) and Whitehead et al. (2018) estimate that 33 per cent of all housebuilders' completions between spring 2013 and spring 2015 and 39 per cent of all completions between summer 2015 and spring 2017 were supported by HtB SELs. Taylor Wimpey, Barratt, and Persimmon each disclose the number of completions involving HtB.

In the specific context of HtB, Finlay et al. (2016) and Whitehead et al. (2018) define 'demand' additionality as 'allowing a purchase that would not have otherwise taken place'. As many HtB homebuyers did not need SELs to purchase their houses, demand additionality refers specifically to those homebuyers with 'binding' financial constraints who could not have purchased their houses without HtB SELs. The authors maintain their demand additionality estimates of 43 per cent of all HtB transactions between spring 2013 and spring 2015 and 37 per cent of all HtB transactions between summer 2015 and spring 2017.

Finlay et al. (2016) assume that housing supply is demand-led and sales lead to starts on at least a one-to-one basis; therefore, they calculate 'supply' additionality as a percentage of a housebuilder's HtB completions. The number of new homes that are a direct result of HtB (additionality) is calculated by multiplying the number of HtB completions by the percentage of sales that could not have occurred without HtB (demand additionality).

Calculating additional cash generated

Once the housebuilders' additionalities are calculated, the average selling prices and gross margins for their HtB completions are used to calculate the cash generated by operating activities (before changes in working capital) that are a direct result of HtB.

This notional cash generation from HtB completions is determined by multiplying the HtB additionality by the average selling price of an HtB completion to calculate the revenue, and then multiplying the revenue by the gross margin of HtB completions to calculate net income. Finally, the net income is adjusted by depreciation, amortisation, and other non-cash items.

This notional cash generation is a more 'cash-like' but non-standard accounting figure that assumes all payments are made in the same period: the difference between a house's building cost and its selling price can be considered the notional cash generation from a housing completion.

Persimmon discloses average selling prices for its HtB completions, and the authors use Government-reported average selling prices for HtB

completions in different English regions to estimate the average selling prices for Taylor Wimpey's and Barratt's HtB completions. Gross margins for HtB completions are calculated using the housebuilders' financial data.

The evidence: housebuilders and SELs

The three housebuilders' assessments of the housing market in 2009, 2010, and 2011 were broadly the same, and they noted the effectiveness of SELs in supporting housing demand. In 2009, Barratt (2009) highlighted SELs as having been 'important in addressing the first-time buyer market where the lack of higher LTV mortgage finance has been a particularly difficult issue'. Barratt (2009) also recognised the HomeBuy Direct scheme as 'making a significant difference to sales of shared equity products'.

Later in 2012, Barratt (2012) acknowledged that FirstBuy 'helped to stimulate improved demand from first-time buyers', and SELs continued to be an 'important sales tool'. Reduced mortgage availability remained the 'key constraint' for Taylor Wimpey (2012) in 2012, although there was some improvement during the year, and the housebuilder also noted the positive impact of FirstBuy. Likewise, Persimmon (2012) saw some 'encouraging early signs of slight improvements [in the housing market] both in terms of accessibility and affordability'. In 2012, there were an increasing number of mortgages available, increasing LTV ratios for the mortgages, and decreasing mortgage interest rates. Still, first-time buyers were hampered by high deposit requirements, and Persimmon (2012) praised FirstBuy for making the housing market more accessible.

In 2013, Taylor Wimpey (2013) observed 'a sustained improvement in the UK housing market' with increased mortgage availability, lower interest rates and 'enhanced customer confidence following the launch of the Government's Help to Buy scheme in April 2013'. Persimmon (2013) also observed that 'mortgage lenders continued to increase the supply of higher LTV mortgages at increasingly competitive rates'. Moreover, Persimmon (2013) believed that HtB SELs would result in 'a much-reduced need from customers for ... Persimmon-sponsored support'. Indeed, in 2014, Persimmon (2014) experienced 'a significant reduction in the requirement to offer shared equity loans to customers'.

Housebuilders' own SELs

To generate much-needed cash following the GFC, the three housebuilders sought to sell more houses by helping their customers buy them. Complementing Government-backed SELs, the housebuilders extended their own SELs to homebuyers and took equity stakes in their own housing production. The housebuilders' involvement in Government-backed SEL schemes alongside their own schemes reinforced their interest in reflating the housing market.

To support first-time buyers with small deposits who were unable to obtain mortgages, Taylor Wimpey's shared equity scheme, 'Easy Start', offered homebuyers 15 per cent SELs that were interest free and payable within ten years. Still, Taylor Wimpey (2011) was 'sparing in [its] use of [its own] shared equity incentives' as 'selective selling tool[s]' and supported the Government's SEL schemes. Barratt also offered its own SELs through its 'Headstart' and 'Dreamstart' schemes: Headstart offered homebuyers 15 per cent equity loans, Dreamstart offered 25 per cent equity loans, and both were interest free and payable within ten years. Persimmon's 'Helping Hand' scheme offered 15 per cent equity loans that were also interest free and payable within ten years.

SELs and notional cash generation from completions

Relative to the notional cash generation from completions, SELs were initially an expensive offering for the housebuilders: they financed their own lending as well as the matched lending to homebuyers using Government SEL schemes. Still, the SELs helped Taylor Wimpey, Barratt, and Persimmon prop up their sales during the housing market's lowest point. As the housing market recovered, homebuyers increasingly used SELs, which increased the value of the housebuilders' mortgage receivables, i.e., the value of mortgage debt owed by homebuyers to the housebuilders.

Between 2008 and 2013, the value of the three housebuilders' mortgage receivables increased dramatically from the tens of millions in 2008 to the hundreds of millions by 2013 (see [Figure 1](#)). While Barratt's mortgage receivables doubled to £130 million and Taylor Wimpey's more than tripled to £110 million, the value of Persimmon's mortgage receivables increased by over eight times to almost £220 million. Indeed, the growth in the combined values of the housebuilders' mortgage receivables imply that they issued £330 million of SELs between 2008 and 2013. This was especially significant as the housebuilders' notional cash generation from completions collapsed between 2008 and 2009 and generally remained below or roughly equal to the value of their mortgage receivables each year up to 2012. Only in 2013 did the housebuilders' cash from completions rise significantly above the value of their mortgage receivables.

Following the introduction of HtB in spring 2013, the value of the three housebuilders' mortgage receivables began to fall as they stopped issuing new SELs. Indeed, there was no longer any need for the housebuilders to continue lending as HtB required no matching loans from the housebuilder. As well, the scale and structure of HtB made mortgages from retail banks much more accessible, which removed the demand for additional SELs provided by the housebuilders.

Moreover, the housebuilders themselves disclosed that they would not have been able to continue their SEL schemes past spring 2013 as their finances were under particular strain (Finlay et al., 2016). Certainly, between 2009 and 2012 following the GFC, the housebuilders were forgoing

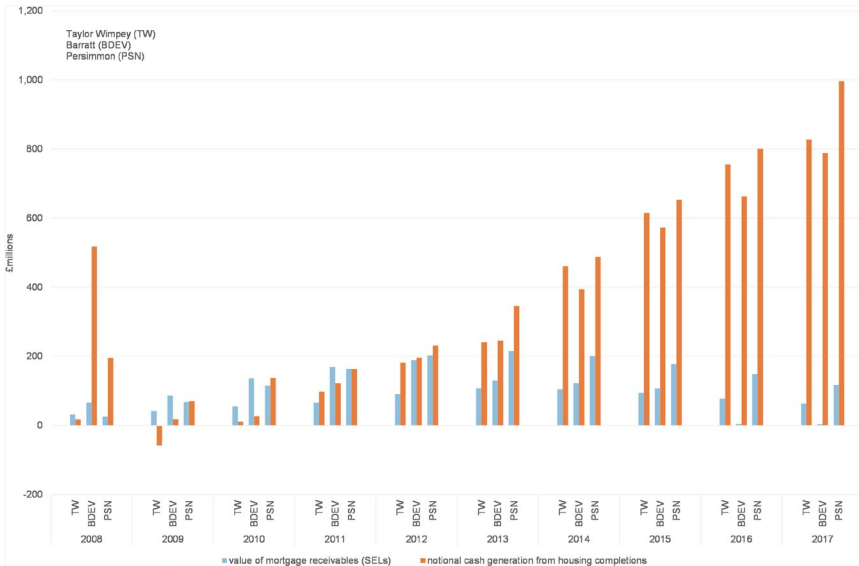


Figure 1. Housebuilders' cash generation from completions and value of mortgage receivables (SELs), 2008–2017.

Source: Authors' own analysis. Data taken from published annual reports and accounts as detailed in references.

significant amounts of cash from sales due to their SELs. However, from 2013 onwards, the housebuilders' cash generation from housing soared, and their capacity to extend even more SELs was instead much greater rather than more constrained.

Between 2013 and 2017, Taylor Wimpey's and Persimmon's mortgage receivables roughly halved while Barratt's fell to almost zero as older SELs were repaid (see [Figure 1](#)). At the same time, each of the housebuilder's cash generation from housing hugely increased, tripling to between £800 million and £1.0 billion, which made the value of their outstanding mortgage receivables relatively trivial.

SELs and financial risk allocation

Housebuilders' financial risk

The effectiveness of SELs as sales incentives is implied by the willingness of the housebuilders to assume the credit risk of their own SELs as well as the credit risk of the additional SELs that Government-led schemes required. The housebuilders consider mortgage receivables as part of their total credit risk, and they exposed themselves to credit risk in amounts that were a large proportion of, and sometimes greater than, the cash they generated from housing each year. Nevertheless, Persimmon (2013) believed that credit risk was 'largely mitigated through holding a second legal charge' over each house sold with an SEL.

With each SEL, in addition to the credit risk of the borrower falling into arrears and ultimately defaulting and not repaying the full value of the loan, a housebuilder is exposed to housing market risk due to its equity stake in the house that secures the loan: if the selling price of the house is lower than its purchase price, then the proceeds remaining after the retail bank's mortgage is repaid may not be sufficient to repay the original amount of the loan. Persimmon (2013) acknowledged that a fall in house prices would lead 'to an increase in ... credit risk'. Although, Barratt (2012) estimated that there was 'no significant concentration of credit risk' because the loans were 'spread over a large number of properties' and 'over a large number of counterparties and customers'. Such a lending strategy should, in principle, address cases of individual borrower defaults; however, it would not mitigate the impact of a severe market downturn on the housebuilders' loan portfolios. Indeed, the value of Barratt's (2012) mortgage receivables peaked at £190 million in 2012, and if house prices that year had fallen five per cent, their value would have fallen by £9.7 million. Similarly, Persimmon's (2013) mortgage receivables reached a high of £220 million in 2013, and they would have fallen in value by £11 million if house prices had fallen by five per cent. In effect, by extending their own SELs following the GFC, the housebuilders shared in the housing market risk that the banks and homebuyers had previously assumed before the GFC, and by doing this, they compounded their risk exposure. Despite an initial willingness to bear the financial risks of their SELs, once the Government introduced HtB, the housebuilders stopped their lending, assuming no further risks from SELs, and their existing SEL risk exposure gradually fell as the loans were repaid. Meanwhile, HtB increased the Government's SEL risk exposure as it assumed the credit risk and market risk once borne by the housebuilders.

UK Government's financial risk

The Government's HtB scheme in England was managed by a non-departmental public body, the Homes and Communities Agency (HCA), whose investment and land programmes were 'focussed on higher-risk borrowers and/or areas of market failure' (HCA, 2018). The HCA viewed its HtB SELs as a portfolio of investments with an 'elevated level of market risk compared to a typical portfolio of residential mortgages' because the loans were secured by second charges (HCA, 2018). At the end of March 2018, the HCA held £8.3 billion in HtB SELs, and together with £330 million in SELs from legacy schemes, the value of the HCA's SEL portfolio was £8.6 billion (HCA, 2018).

HtB required the Government, which funded the HCA, to bear credit risk as a lender to a homebuyer through its SEL as well as bear housing market risk as a speculative investor with the prospect of gains or losses through its equity stake in the dwelling. Likewise, the homebuyer bears risk as an investor in housing through their own equity stake. For the Government, the impact of a decline in dwelling prices on the HCA's loan

portfolio is not linear: if dwelling prices in 2018 were 25 per cent lower, the fair value of the HCA's SELs would have been £5.1 billion, or 41 per cent lower (HCA, 2018). By spring 2018, the Government realised £95 million in profits from the repayment of some of the SELs that it had issued since the start of HtB in spring 2013. By spring 2021, almost 40 per cent of the 170,000 SELs issued between spring 2013 and spring 2018 had been repaid, either through housing sales or direct repayments from homebuyers. The original value of these repaid loans was £3.1 billion, and the value received by the Government was £3.4 billion: the Government gained £310 million in profits from the increase in the value of its equity stakes between the times loans were issued and repaid (Homes England, 2021).

The HtB scheme included early repayment options and second charge holder status for the HCA, which exposed the taxpayer to other financial risks: in a worst-case scenario of early repayment, arrears, and repossession at 2018 house prices, the fair value of the loans would have been over £300 million lower. The HCA had no say in a homeowner's decision to sell their house: the homeowner decided when to sell their house as part of their household financial strategy. So, the Government's HtB returns are realised only through the homeowner's interest payments while their house remains unsold. As HtB loans were interest free for the first five years, the HCA received no interest payments between 2013 and 2017.

The housebuilders are outside HtB's direct risk-return relationships and consequently bear none of the scheme's financial risk. Nevertheless, the housebuilders and their shareholders benefitted significantly from the cash generated by the additional housing sales that HtB supported.

HtB additionality and its effect on housing output, cash generation, and shareholder returns

Housing output

Between 2008 and 2009 after the GFC, the three housebuilders' completions fell significantly. Responding to the recovering housing market, Taylor Wimpey, Barratt, and Persimmon began to increase output in 2012. During this period, between 10 per cent and 20 per cent of the housebuilders' sales were supported by their own as well as the Government's SELs (see [Figure 2](#)). Indeed, by 2011, Persimmon's output returned to pre-GFC levels.

Following HtB's launch, the housebuilders significantly increased production. From 2013 to 2017, Taylor Wimpey completed over 65,000 houses, including 24,000 completions that involved HtB. Using the additionality proportions estimated by Finlay et al. (2016) and Whitehead et al. (2018), the authors calculate that 9,300 of the 24,000 HtB completions were additional completions directly resulting from HtB, i.e., 9,300 Taylor Wimpey homebuyers would not have been able to purchase their homes without HtB SELs. Barratt completed over 76,000 homes between 2013 and 2017;

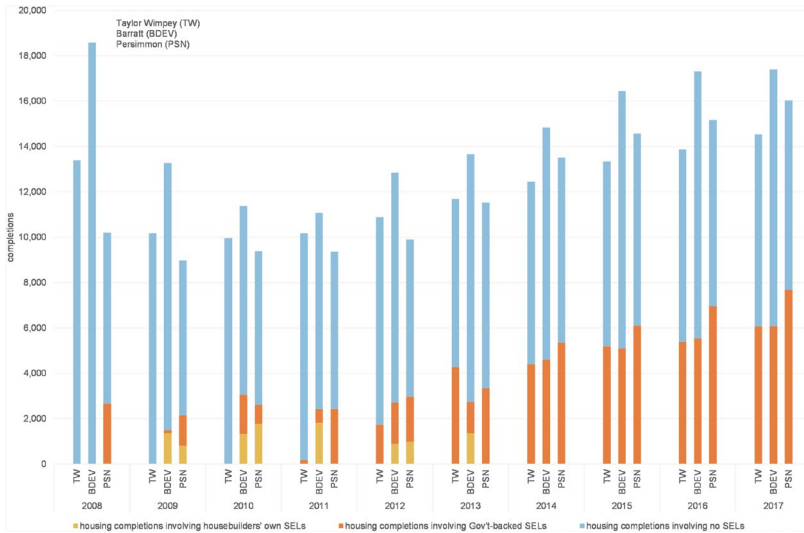


Figure 2. Housebuilders' completions and SELs, 2008–2017.

Source Authors' own analysis. Data taken from published annual reports and accounts as detailed in references.

of these, 22,000 completions were supported by HtB, including 8,400 additional homes that directly resulted from HtB. Persimmon built almost 71,000 homes over the same period, and 28,000 homes were sold using the HtB, including 11,000 additional homes. Between its launch in spring 2013 and the end of 2017, HtB resulted in an additional 29,000 homes built by Taylor Wimpey, Barratt, and Persimmon that would not have been built otherwise.

By 2017, HtB SELs were used in between one-third and one-half of the housebuilders' completions (see [Figure 2](#)). Thus, housing production in England was directly financed by the Government to an extent only seen before the 1980s when housebuilding by Local Authorities, which were funded by the central government, accounted for almost 40 per cent of the over 200,000 houses built each year (compared with only one per cent of the approximately 160,000 houses built in 2017) (DLUHC and MHCLG, 2021). Despite HtB support, Taylor Wimpey's and Barratt's housing output in 2017 remained below pre-GFC levels.

Cash generation

From 2013 to 2017, Taylor Wimpey generated £1.1 billion in notional cash from all completions that involved HtB, which includes £440 million from the additional houses that would not have been built without HtB SELs for the homebuyers. Over the same period, Barratt generated £600 million from its HtB-supported completions, including £230 million from the

additional houses directly resulting from HtB. During the same period too, Persimmon generated £1.9 billion from HtB completions, including £710 million from additional HtB houses. Between 2013 and 2017, HtB SELs resulted in an additional £1.4 billion in notional cash from completions for Taylor Wimpey, Barratt, and Persimmon (see [Figure 3](#)).

Beyond cash generation due to the number of additional HtB completions, the HtB completions themselves were more expensive, which resulted in even more cash for the housebuilders. Carozzi et al. (2020) found that HtB increased house prices in England and Wales by between three and four per cent, and Finlay et al. (2016) found that most HtB homebuyers purchased houses that were bigger and in better areas, and presumably more costly, than they had considered purchasing without HtB.

Shareholders' returns

Reeling from the GFC, the three housebuilders suspended dividends after 2008 and adopted cash conservation and generation strategies to repay debt. By the time the Government introduced HtB in 2013, they had little debt and strong cash positions. Moreover, despite low house price growth since the GFC and total output that had not yet reached pre-GFC levels, the housebuilders generated strong cash flows based on higher margins. Indeed, Persimmon's, Barratt's, and Taylor Wimpey's gross margins each doubled from roughly 10 per cent in 2008 and 2009 to roughly 20 per cent in 2013. Persimmon, Barratt, and Taylor Wimpey were very well positioned for any improvement in the housing market to translate directly to increased returns for shareholders. Indeed, the financial markets recognised this, and the housebuilders' share prices increased by an average of 220 per cent between the end of the GFC recession in March 2009 and the end of 2013. As well, the housebuilders became sufficiently confident in their future financial performance to commit to hundreds of millions of pounds of dividends over the next several years.

HtB directly resulted in additional completions, and a chain can be established between Government-funded HtB SELs, the housebuilders' revenues, the subsequent cash generated, and, finally, the cash paid to shareholders as dividends.

In 2011, Persimmon announced a Capital Return Plan that would pay £1.9 billion in dividends between 2013 and 2021. Later in 2013, Taylor Wimpey announced a plan to pay £250 million in dividends in 2014 and 2015. In mid-2014, Barratt joined its peers when it introduced its own Capital Return Plan that would pay shareholders £950 million by 2017. Taylor Wimpey paid almost £650 million in special dividends between 2014 and 2017 and committed to pay another £240 million in 2018. Likewise, Barratt raised its planned dividends to £1.4 billion by mid-2018, and remarkably, Persimmon more than doubled its planned dividends to £4.1 billion by 2023.

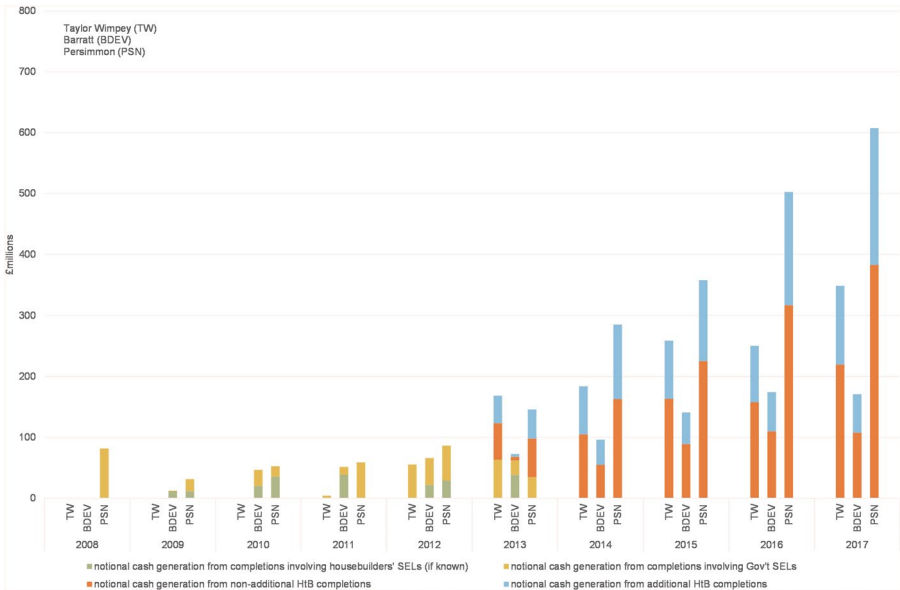


Figure 3. Housebuilders' cash generation from completions involving SELs, 2008–2017.

Source: Authors' own analysis. Data taken from published annual reports and accounts as detailed in references.

HtB directly resulted in additional completions and growing cash generation each year, and the amount of cash generation resulting from HtB additionality was equal to a significant proportion of the cash dividends paid by the housebuilders to their shareholders (see [Figure 4](#)). Between 2015 and 2017, the annual cash generated by HtB additionality was equal to roughly half of the £300 million to £400 million in dividends that Persimmon paid each year. Similarly, annual cash from HtB additionality was equal to roughly one-quarter of the £100 million to £500 million in annual dividends that Taylor Wimpey and Barratt each paid.

Between 2013 and 2017, the three housebuilders generated £1.4 billion in cash from additional HtB completions, which was equal to 40 per cent of the £3.5 billion in dividends they paid over the same period. This is a return to the housebuilders' shareholders for no additional risk assumed by the housebuilders – it amounts to an indirect income transfer from the taxpayers, who assumed all the related risk, to the shareholders.

As well as benefiting from over one billion pounds of additional dividends, the shareholders benefited from rising share prices: between April 2013 and December 2017, Taylor Wimpey's and Barratt's share prices each rose by 120 per cent and Persimmon's shares rose by 150 per cent. Another consequence of the transfer of risks to the taxpayer was the housebuilders' markedly improved financial positions and their bright prospects in a housing market in which a large proportion of transactions were secured by HtB SELs.

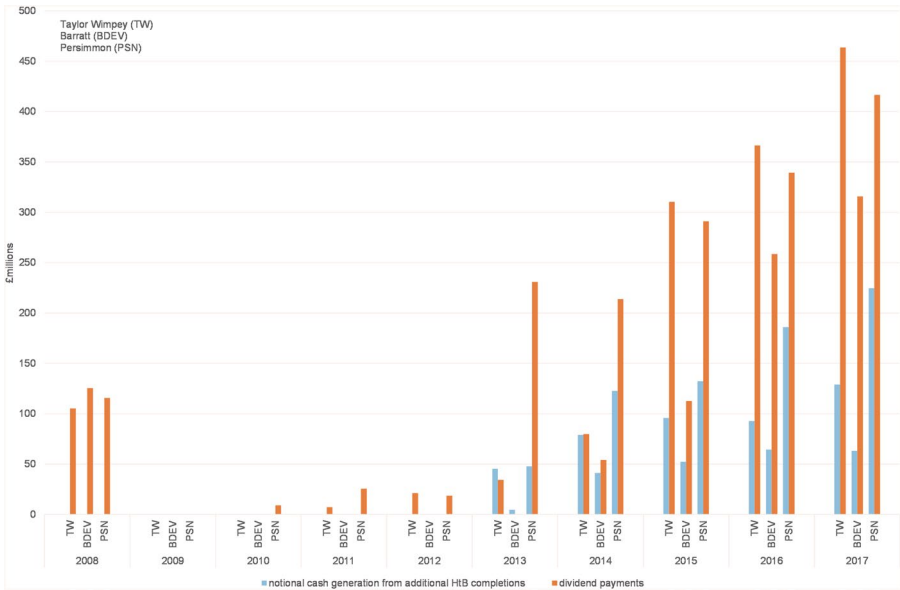


Figure 4. Housebuilders' cash generation from additional HtB completions and dividend payments, 2008–2017.

Source: Authors' own analysis. Data taken from published annual reports and accounts as detailed in references.

Conclusions

Triggered by the shock of the GFC, the state turned towards SELs, up to then a modest network of housing provision, to save the UK housebuilding industry. The network grew and evolved under successive governments, achieving its apex post-2013. The critical element of the transformed network was financing: SELs were offered to homebuyers to enable their purchases. Unlike pre-2013 SEL scheme configurations, the post-2013 HtB SEL configuration allocated no financial risk to the housebuilders as well as reduced their market risk, which the state in its various guises seemed to be implicitly underwriting through HtB. Instead, financial risks were wholly borne by the HCA and the retail banks, including two of the UK's largest banks that by then were essentially state-owned. HtB did result in additional purchases by marginal homebuyers who would have otherwise not bought houses, and housing production increased.

Higher output, lower risk, and rising house prices were very good news for the housebuilders' shareholders, whose shares doubled in value after 2013. Moreover, the notional cash generated by additional HtB-supported sales in England amounted to 40 per cent of the housebuilders' dividends between 2013 and 2017, further boosting shareholder returns. This support for dividends is an indirect income transfer from the taxpayer to shareholders, and the increased share prices are an indirect wealth transfer.

Raco (2016, p. 4) argues that we are increasingly witnessing governments that are 'sacrificing their control over welfare services and handing them over to corporate demands and returns'. The findings in this article suggest that HtB is a manifestation of a mode of regulation of capitalism whereby the market for a non-traded sector is actually manipulated by the state, with significant benefits for private shareholders but less clear benefits for the state itself. The state plays the role of property speculator and is assuming market and financial risks for returns that may materialise based on the decisions of owner-occupiers.

The beneficiaries of this approach are housebuilders' shareholders, including the housebuilders' management, and, to a lesser extent, the homebuyers, who are able to access owner-occupation and assume less risk than they would have otherwise. The assumption by the state of risk in housebuilding (also explored in Beswick and Penny (2018) for Local Authority housing) is mirroring the role of the state in urban regeneration projects (Karadimitriou et al., 2013), but in this case, there is no public goods provision, i.e., the housing produced this way is private. Instead, the justification is that the state is entitled to act as a property speculator (who also controls fiscal policy and is a direct beneficiary of the Bank of England's quantitative easing).

This article raises some questions for future research. Although post-GFC housing output did eventually increase through Government-backed SELs, is this the most efficient and effective use of public money for housebuilding, particularly in comparison to pre-1980s social housing provision and current Local Authority housing provision? Perhaps in a refutation of the trope of 'socialised risk and privatised returns', the state as a property speculator has made its own claim on returns from the housing market on behalf of the taxpayer, directly or indirectly through development value capture. However, the state's generous transfer of risk from the housebuilders to itself in exchange could represent a potential hijacking of the state apparatus by private interests. Any examination of the state's role in a market-based network of housing provision to correct market failures should investigate who benefits from returns, especially in an industry as highly concentrated as housebuilding is.

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