DELIVERING MORE

HOMES FOR SCOTLAND

THE VALUE OF RESIDENTIAL DEVELOPMENT

A RESEARCH REPORT BY RETTIE & CO

SEPTEMBER 2019

CONTENTS

EXECUTIVE SUMMARY

Homes for Scotland commissioned Rettie & Co to review the current literature on the value of development and the cost of restricted land supply in Scotland.

Value has a variety of meanings. The values arising from new development are shaped not only by the inherent offering of the development itself, such as new homes or office space, but wider values, many of which are influenced by the planning system. Researchers[1] identify six such value types.

VALUES OF DEVELOPMENT

Exchange Value

- Prices Buildings Traded At

Use Value

Creating Places that:
- Appeal to Occupiers & Residents
- Contribute to Productivity, Profitability & Competitiveness of Place

Social Value

Creating Places that:
- Connect People
- Reinforce Civic Pride
- Encourage Social Inclusion

Environmental Value

Creating Places that are:
- Adaptable
- Flexible
- Sustainable

and therefore, last longer.

Identity Value

Resulting in places that bring:
- Prestige
- Vision
- Reputation

to their areas.

Cultural Value

Creating Places that are:
- Suitable to their Location & Context
- Enhance Historical Development

[1] Based on work of Adams et at (2014), *The value of planning*, Royal Town Planning Institute; and Macmillian (2006), *Added value of good design*, Building Research & Information.

Residential development has a number of quantitative and qualitative impacts.

VALUE OF DEVELOPMENT TO SCOTLAND

Home building supports over 80,000 jobs in Scotland…

…which would increase to more than 100,000 jobs if building returned to pre-recession levels.

Home building contributes c.£570m to central & local government finances

The wider construction sector provides over 6% of Scotland's total economic output.

Wider Impacts

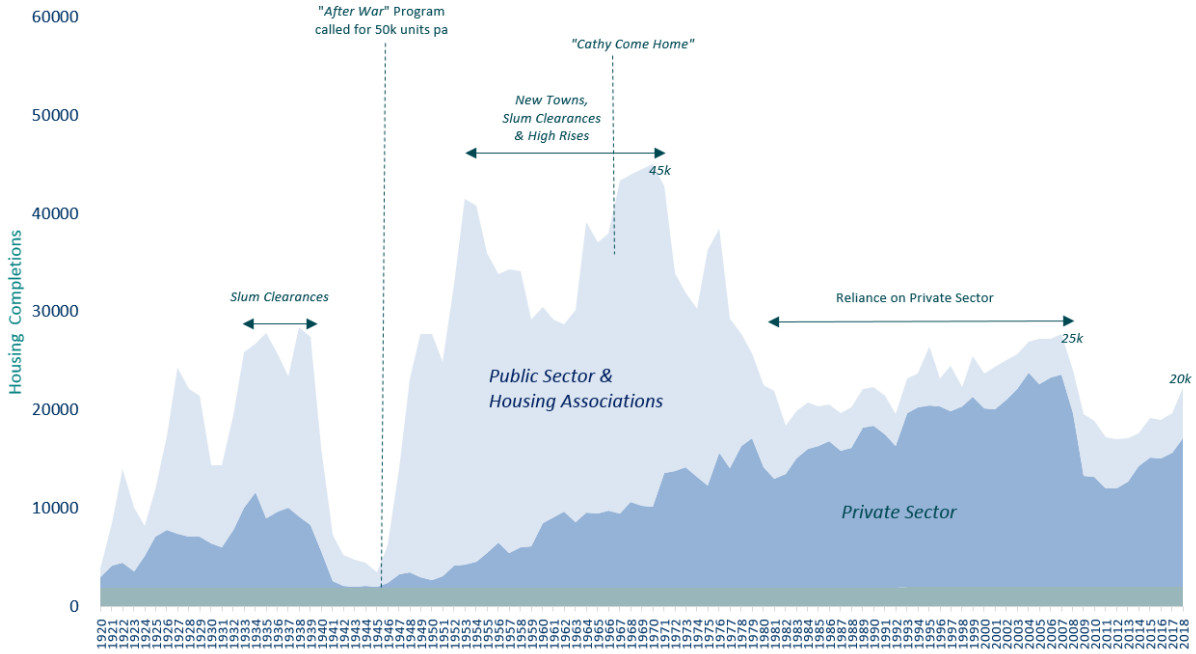
- **Improves Housing Stock**
- **Improves Health**
- **Improves Social Opportunity**
- **Cost Effective Regeneration**
- **Improves Worker Productivity**
- **Improves Quality of Life**

The literature supports the view that home building in Scotland, and in the wider UK, is significantly below historic levels and much lower than the numbers required. Audit Scotland (2013) suggested around 20,000 per annum were needed and, a little later, after a sharp downturn in new housing numbers, the Commission for Housing and Wellbeing (2015) assessed the new supply requirement to be 23,000 per annum. Homes for Scotland set its sights on a similar number, calling for a return to pre-recession levels of 25,000 homes per annum. Bramley (2018) in a recent report for Crisis and the National Housing Federation suggested Scotland needed 26,000 new homes per year over the next 15 years.

The Scottish Government has not adopted an all-tenure housing target since 2007, when it set a target of 35,000 new homes per annum by the middle of what is now the current decade.

The country has been falling short of any of these targets since the 2008/09 financial crisis and accompanying housing market crash. By 2018, the number of new homes built had only climbed to circa 20,000, around 80% of pre-recession levels after a decade of under-performance.

Home building in Scotland by sector, 1920-2018 (latest full calendar year 2018 is circa 20,000)



Source: Scottish Government/Rettie & Co

Home builders experience the planning system as a major constraint, hindering the availability of viable land. There is strong evidence that the system is slow and complex in terms of delivery, with sites of 20 homes or more in the UK taking at least four years from the granting of detailed planning permission to site completion (Chamberlain Walker & Barratt Developments PLC, 2017). It has also been evidenced that the principle of Green Belt protection (irrespective of the environmental quality of the land) has created more congestion and pollution than relaxing restrictions might have achieved (Barker, 2004) and seriously restricted housing numbers in very marketable locations (Stringer, 2004), having knock-on impacts on affordability, internal space standards and design (Mace et al, 2016).

Main constraints experienced by home builders in delivering more homes

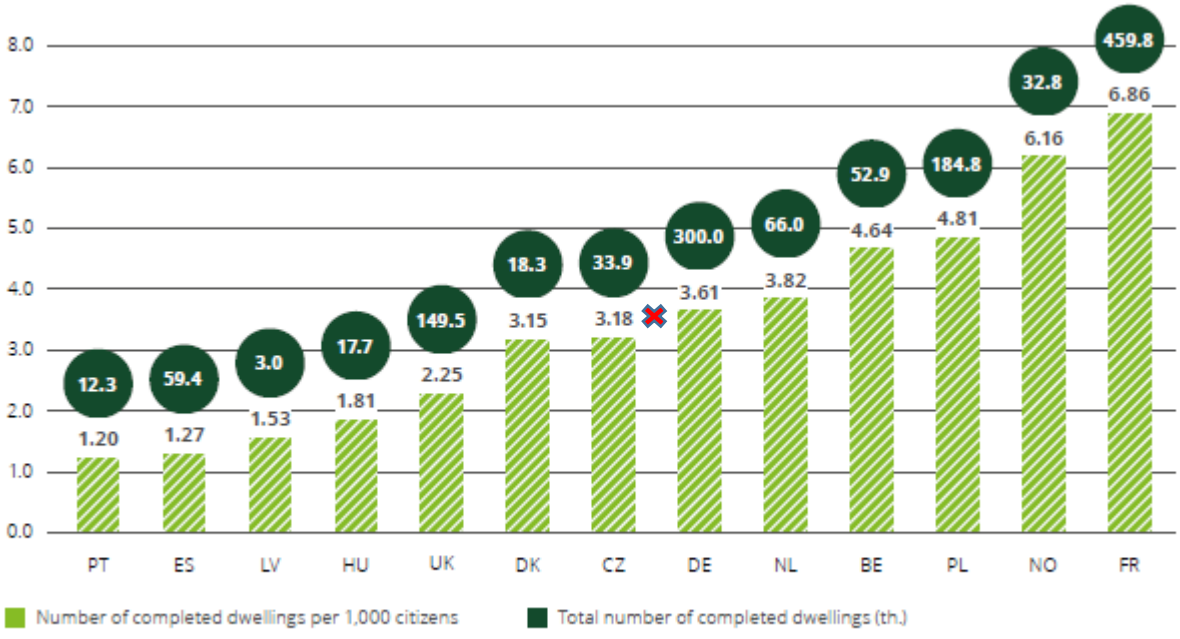
Constraints	2018	2017	2016	2015	2014	2013	2012
Lack of available and viable land	59%	62%	67%	68%	51%	55%	n/a
The planning system	51%	49%	50%	57%	43%	48%	41%
Lack of finance to the company	46%	54%	50%	62%	62%	60%	72%
Shortage of skilled workers	44%	42%	39%	27%	n/a	n/a	n/a
Cost of Section 106 agreements	30%	29%	31%	34%	31%	29%	46%
Restricted mortgage availability	29%	21%	33%	47%	35%	42%	56%
Cost of Community Infrastructure Levy	29%	29%	22%	22%	24%	24%	25%
Materials shortages	24%	23%	14%	9%	12%	n/a	n/a
Cost of national regulation	15%	14%	17%	22%	12%	19%	24%
Cost of locally imposed standards	13%	16%	17%	19%	12%	17%	21%
No constraints	6%	3%	4%	0%	14%	8%	n/a

Source: Federation of Master Housebuilders 2018 Members Survey[2]

Scotland and the wider UK, through the planning system and wider policy, takes a less proactive approach to land supply and housing delivery than other European countries and so is less responsive to need and demand (De Montfort University & NHPAU, 2009).

There is a consensus that a shortage of land is a key constraint (Barker Review, 2004), with evidence that the development control, with its probabilistic rather than certain decisions (as opposed to a masterplan or zoning system makes the supply of new development more inelastic (Mayo & Shepherd, 2001) and therefore inefficient in responding to demand (Harrison, 1977). The UK performs relatively poorly in terms of the number of new homes being built per capita.

Housing development intensity in various EU countries, 2018
Index of the number of completed dwellings per 1,000 citizens, Scotland marked with Red X



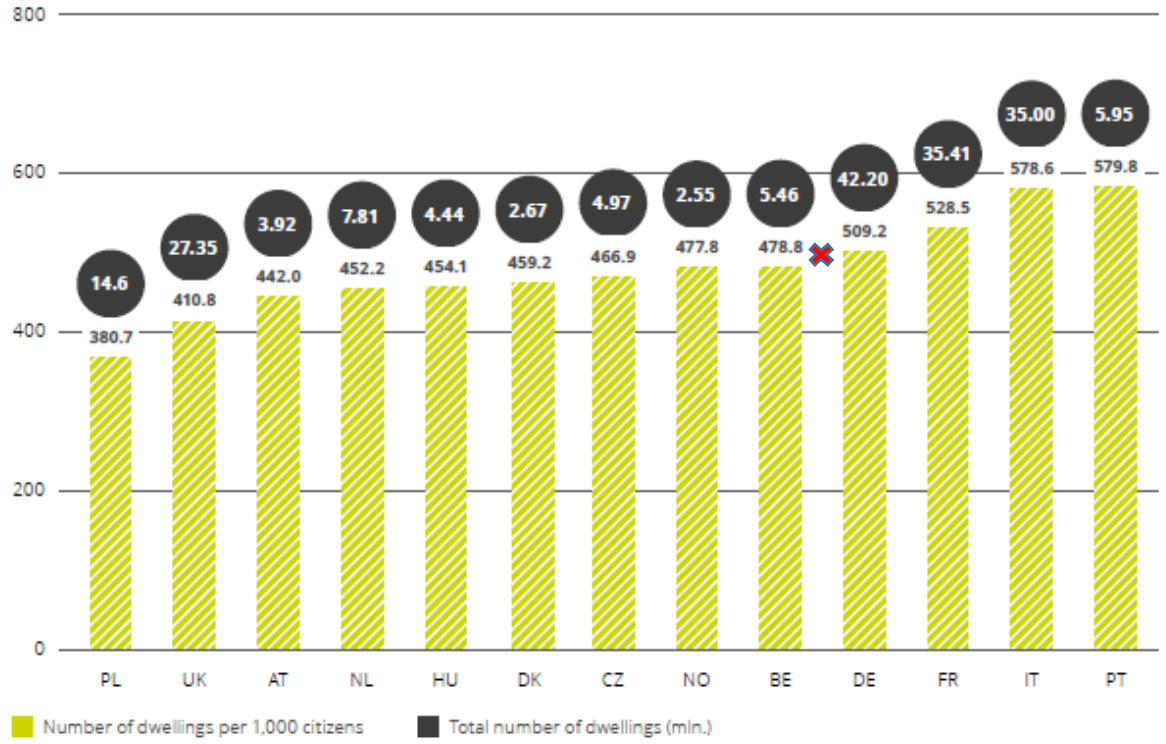
Source: National Statistical Authorities, Euromonitor International, calculated by Deloitte

[2] Federation of Master Housebuilders (2018)

Total housing stock levels in the UK are also relatively low. The relatively poor performance of countries like Portugal (PT) and Spain (ES) in the graph above can be partly explained by their housing boom before the recession. Both these countries actually have high levels of building stock. The UK, on the other hand, is near the bottom of the table for new build completions AND stock levels.

The equivalent figures for Scotland suggest that it is performing better than the wider UK, with a housing development intensity of 3.3 completions per 1,000 residents and 480 dwellings per 1,000 citizens. However, even this stronger performance is only around mid-table in development intensity and housing stock. 2018 was also a stronger year for completions in Scotland – the highest for a decade.

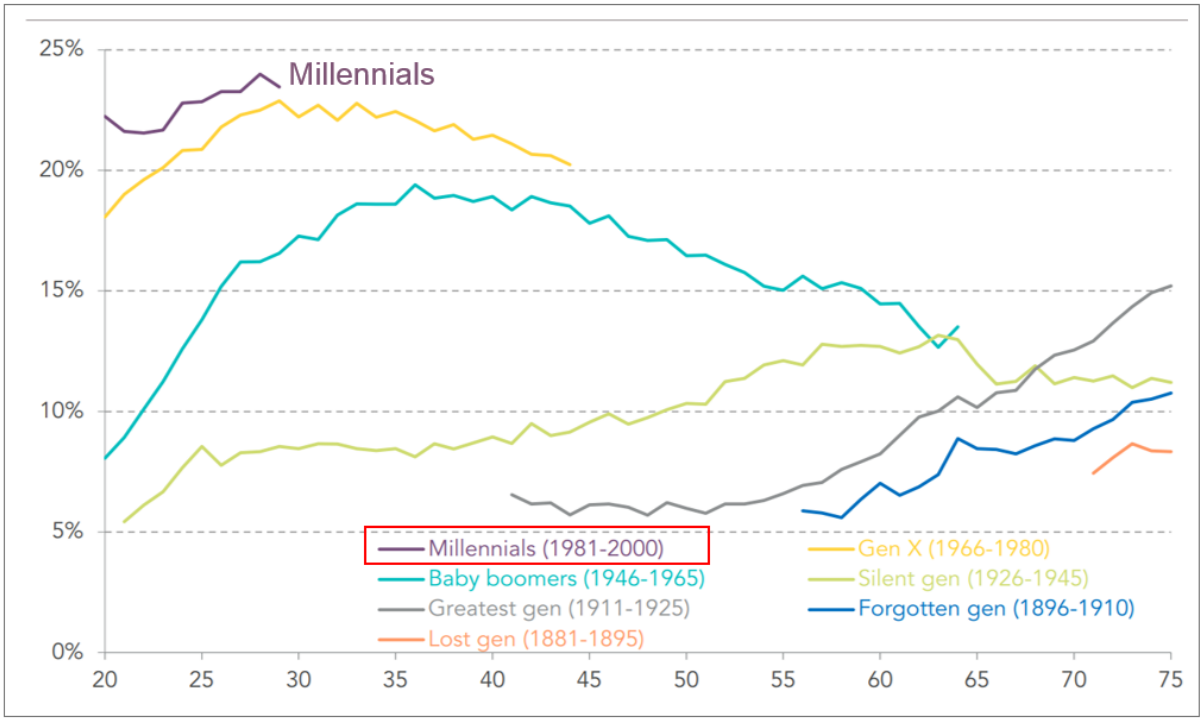
Housing stock of various EU countries, 2018
Number of Dwellings Per 1,000 citizens, Scotland marked with Red X



This lack of supply has significant negative consequences, especially on housing affordability, wealth inequality, housing market volatility and overall macroeconomic stability (Barker Report, 2004; Regeneris Consulting & Oxford Economics, 2010).

This is clearly seen by the rising costs of housing over successive generations, with the current generation of new households ('millennials') spending close to 25% of their income on housing, with many excluded from home ownership as a result.

Percentage of income spent on housing by generation



Source: Resolution Foundation (2017)

Home building has an economic value. The industry supports 80,000 jobs in Scotland and has the potential to create 20,000 more if completion levels could get back to pre-recession numbers (Nathaniel Lichfield & Partners, 2016, updated).

Residential development also stokes public finances through Land & Buildings Transaction Tax, Corporation Tax, PAYE, landfill tax, business rates, VAT, Council Tax and section 75 agreements. Combining various sources, it is estimated that this provides over £570 million to government finances from Scotland.

Higher levels of residential development have also been shown to improve the housing stock (Munday et al, 2004), improve health, improve educational attainment (Conley & Dalton, 2001) and improve social opportunities (Feinstein et al, 2008).

Housing development has also been shown to improve places and regenerate entire areas that have been in long-term decline (Pendlebury, 2015).

SUMMARY OF KEY FINDINGS AND CONCLUSIONS

The lack of home building in Scotland, especially in the main cities, has caused significant affordability issues, especially for younger people, and has increased wealth inequalities.

It has also created difficulties for older people, with a dearth of suitable quality housing for a rapidly increasing older population. Substantial savings in health and social care could also be generated through providing more of this accommodation and, additionally, it can free up currently inefficiently used housing stock. Despite the obvious appeal of retirement living, Scotland has very few schemes compared to England.

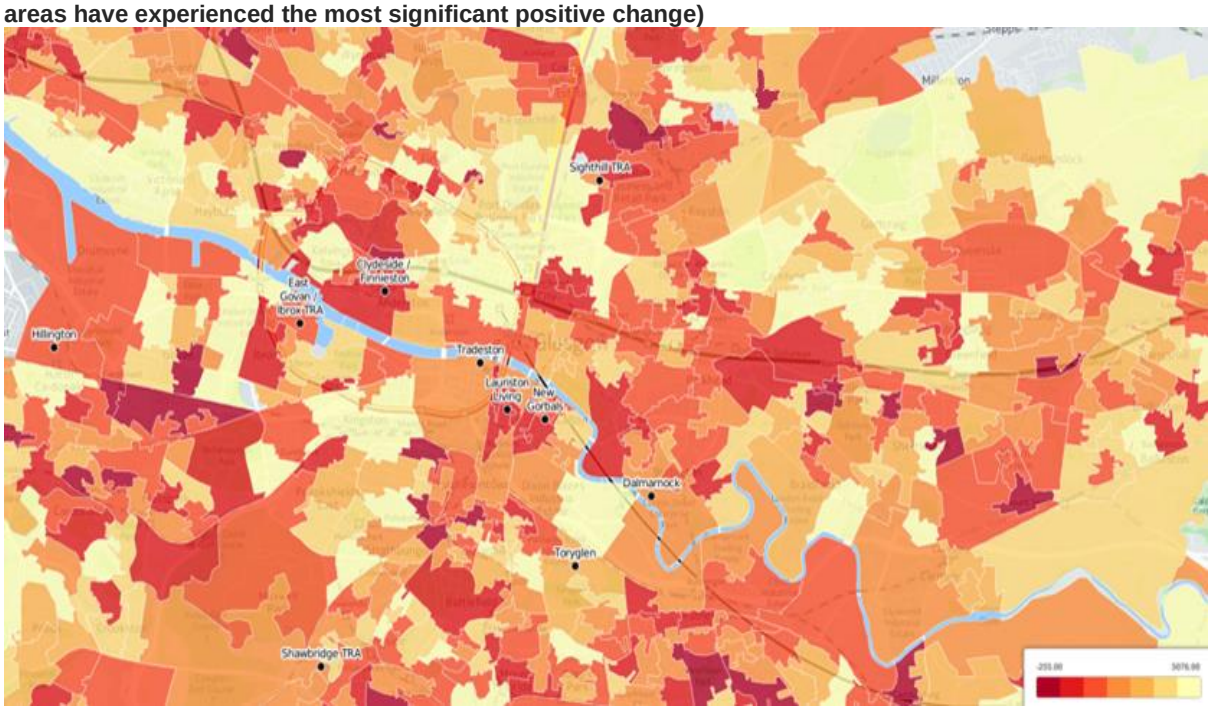
The literature evidences how higher levels of home building can improve affordability of housing; increase new household formation rates; improve housing quality; reduce housing market volatility; improve people's heath; improve educational attainment; and increase social mobility. As a binding constraint through reducing access to land, the planning system often limits home building, producing the opposite effects. This can have consequences for the wider economy and society.

The planning system in the UK restricts land availability and is slow and complex, therefore is not very effective at responding to need and demand.

Real estate development plays a direct role in delivering considerable economic output and employment. The home building and commercial property sectors alone support well over 150,000 jobs in Scotland. Real estate development also produces other economic benefits such as improving labour market mobility and flexibility; worker productivity; and job satisfaction.

Appropriate development can improve place-making and reverse an area's long-term decline. Clear evidence of this is shown in the significant positive change in parts of Glasgow, such as Transformational Regeneration Areas (TRAs), where development-led regeneration has significantly lowered deprivation levels, e.g. Shawbridge, East Govan/Ibrox and Sighthill. This is also seen in areas that have had significant levels of new housing such as Laurieston and New Gorbals.

Change in Scottish Index of Multiple Deprivation (SIMD) ranking over a 10-year period to 2016 (redder areas have experienced the most significant positive change)



Source: Rettie & Co/SIMD

1 INTRODUCTION

Homes for Scotland commissioned Rettie & Co to produce a review of the available literature on the value of residential development.

Case study evidence is also used to provide actual examples of what residential development has achieved, e.g. in terms of economic, social and other impacts.

This is not a critical assessment of the literature, rather an overview of the key messages from a variety of relevant studies, with the main focus being Scotland and the wider UK, but bringing in international evidence as well where appropriate.

The main findings are summarised at the end of the review, with conclusions drawn out from these.

Looking at the context for residential development within the planning system helps to provide a set of values that such development is meant to bring about.

Planning policy plays a significant role in shaping the economic function of the development sector by applying policies to shape, regulate and stimulate the market, with planners as active market actors. Adams and Watkins (2014) suggest that spatial planning has four crucial attributes, which help distinguish it from traditional land use zoning or regulation. It is meant to be visionary, integrative, inclusive and action-orientated. Adams et al (2013) suggests six different types of value that can be enhanced by planning.

1. **Exchange value**, revealed by the price at which buildings are traded.
2. **Use value**, evident in appeal of places to occupiers, reflected in their contribution to productivity, profitability and competitiveness.
3. **Social value**, reflecting the extent to which places help connect people, enhance social interaction, reinforce civic pride, encourage social inclusion and promote neighbourly behaviour, while reducing vandalism and crime.
4. **Environmental value**, shown by the degree of adaptability, flexibility and robustness and reflecting concern for intergenerational equity and biodiversity.
5. **Image value**, demonstrated in the contribution places make to corporate identity, prestige, vision and reputation.
6. **Cultural value**, apparent in the relationship of a place to location and context, and its contribution to the rich tapestry and broader patterns of historical development of the town or city in which it is situated.

These are the core values and benefits that planning for development, including residential development, can bring.

2 VALUE OF RESIDENTIAL DEVELOPMENT

A clear value of the planning system is making available land supply to meet the housing demand and needs of the population. After food and water, shelter is the most basic human need.

2.1 ADDRESSING NEED AND DEMAND

In Scotland, the extent of housing demand has been estimated at different levels. The Scottish Government's (2007) *Firm Foundations* set a target of 35,000 homes per annum by around 2015, with the then Deputy First Minister, Nicola Sturgeon, stating that, *"Above all, it will require local authorities, as the statutory planning authorities, to deliver the land supply necessary to support more house building."* A more recent study by Audit Scotland (2013) estimated 500,000 homes were needed in the next 25 years (around 20,000 per annum) and acknowledged:

> *"National and local government recognise that good housing can make a positive contribution to many government priorities, including economic growth, community empowerment and improved health. However, housing does not always play the role that it could. Planning at a local level is challenging; councils have an important role but have few direct powers, and influencing change can be difficult. Effective leadership is required at a national and local level to ensure housing is well planned and linked to other policy areas."*

A little later, after a sharp downturn in new housing numbers, the Commission on Housing and Wellbeing (2015) assessed the new supply requirement to be 23,000 per annum. Homes for Scotland set its sights on a similar number, calling for a return to pre-recession levels of 25,000 homes per annum. Bramley (2018) in a recent report for Crisis and the National Housing Federation suggested Scotland needed 26,000 new homes per year over the next 15 years, with 5,500 of these each year to be social rented homes and 2,500 per year for intermediate affordable rent.

Powell et al (2015), in a report for Shelter Scotland, suggest that 12,000 affordable homes are required a year for the next five years and the Scottish Government has set a target to deliver 50,000 affordable homes between 2016 and 2021, although current completion rates suggest that this target may not be met, with 7,336 affordable completions in the 2016-17 financial year, 8,534 in 2017-18 and 9,535 in 2018-19.[3]

There is little doubt that home building in Scotland, and in the wider UK, is some way below historical levels and much lower than levels required. Based on the Audit Scotland and Commission on Housing and Wellbeing figures, Scotland is already running at a deficit of some 20,000-23,000 new homes since these targets were set only a few years ago (Figure 2.1). The cumulative shortfall since the recession is over 80,000 homes if, as many argue, Scotland should have been building at pre-recession levels over the last decade (Figure 2.3).

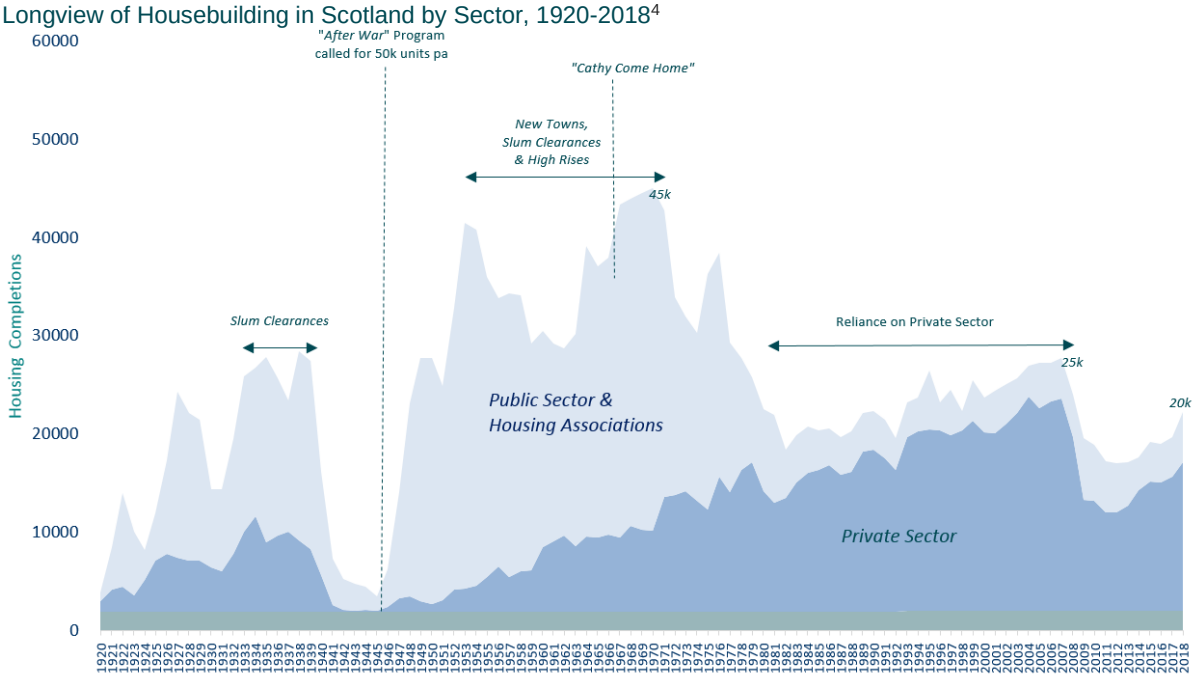
As Figure 2.2 shows, the UK has far fewer dwellings relative to its population than most comparable counties worldwide. The UK has also been far less successful in in increasing this ratio in recent years. This information cannot be directly compared on a Scotland basis, but Scotland does tend to be comparable to UK stock to population levels and below EU-wide averages, e.g. Scotland had 478 dwelling per 1,000 citizens in 2017 compared with 434 for the UK and 486 for the EU 28. There are similar figures for Scotland for 2001 and 2015, which show around 607 dwellings per 1,000 residents over 20 years-old in both years, so again, Scotland is slightly higher than the rest of the UK while lower than most of Europe.

Resolution Foundation (2017) has backed the UK Government's target for England of 300,000 new homes per year, significantly above the projected rate of population change, as *"a good place to start."*

[3] Scottish Government (2018b)

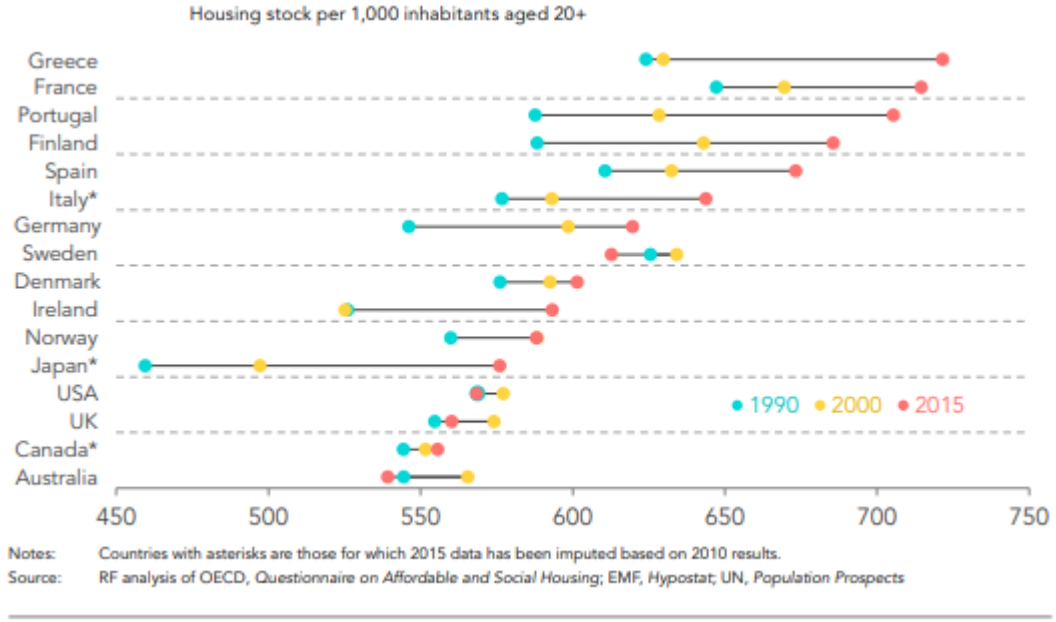
Figure 2.1 Recent home building in Scotland has had a decade of under performance

Longview of Housebuilding in Scotland by Sector, 1920-2018[4]



Source: Scottish Government/Rettie & Co

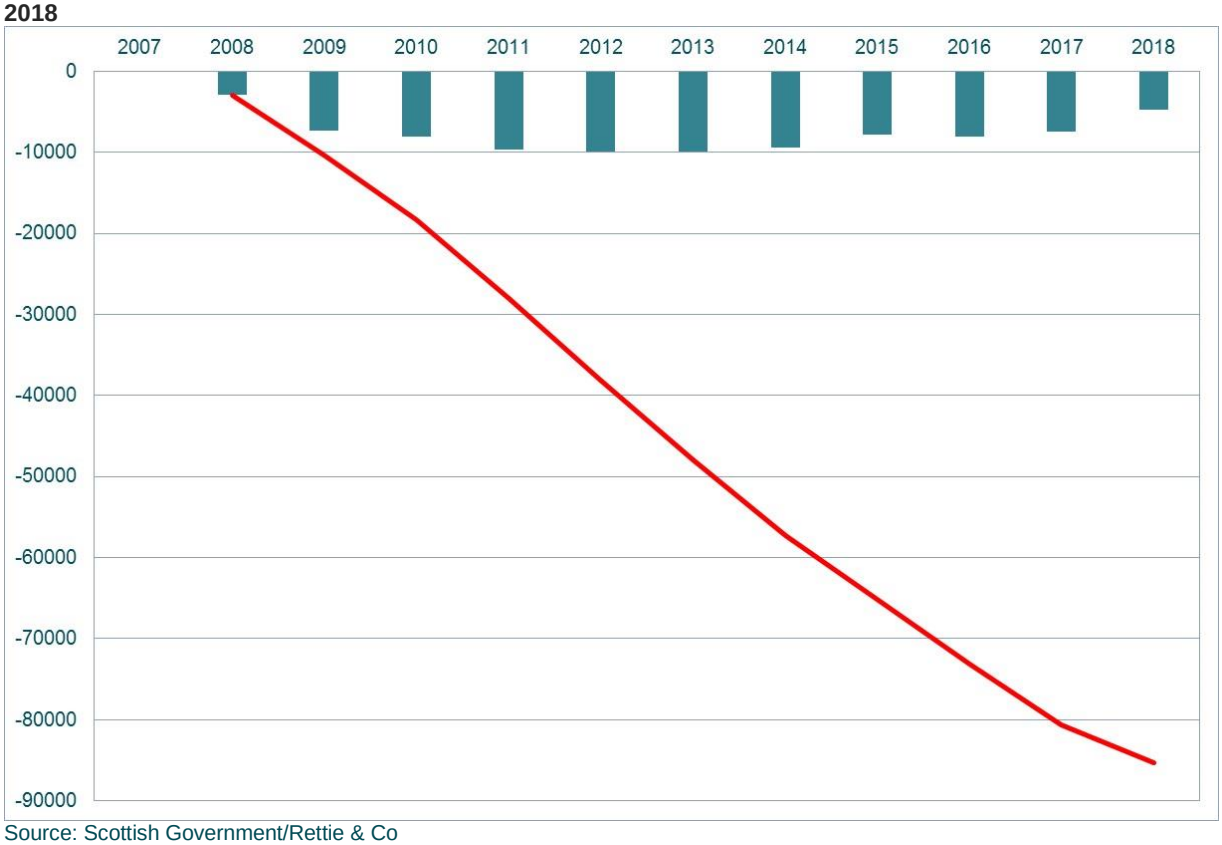
Figure 2.2 UK has far fewer dwellings relative to population than comparable countries[5]



[4] Scottish Government (2018a)

[5] Resolution Foundation (2017)

Figure 2.3 Annual shortfall and cumulative undersupply in Scotland against nominal 25k pa target, 2007-2018



Source: Scottish Government/Rettie & Co

2.2 PLANNING CONSTRAINTS AND CONSEQUENCES

Appendix A summarises some of the key literature that has examined the link between the planning system and the housing market.

The planning system is often seen as inefficient and costly, especially with information demands on applicants or long decision-making times[6]. A study in England has estimated transaction costs of development control in England to be around £3 billion per annum for major housing developments, of which £2 billion is attributable to the direct costs of the system to both the public sector and applicants and £1 billion to the additional finance costs for applicants of holding land while applications are under consideration[7].

The planning system itself is regularly seen by home builders as one of their major constraints.

[6] Allmendinger and Ball (2009)

[7] Ball (2011)

Table 2.1 Main constraints experienced by home builders in delivering more homes

Constraints	2018	2017	2016	2015	2014	2013	2012
Lack of available and viable land	59%	62%	67%	68%	51%	55%	n/a
The planning system	51%	49%	50%	57%	43%	48%	41%
Lack of finance to the company	46%	54%	50%	62%	62%	60%	72%
Shortage of skilled workers	44%	42%	39%	27%	n/a	n/a	n/a
Cost of Section 106 agreements	30%	29%	31%	34%	31%	29%	46%
Restricted mortgage availability	29%	21%	33%	47%	35%	42%	56%
Cost of Community Infrastructure Levy	29%	29%	22%	22%	24%	24%	25%
Materials shortages	24%	23%	14%	9%	12%	n/a	n/a
Cost of national regulation	15%	14%	17%	22%	12%	19%	24%
Cost of locally imposed standards	13%	16%	17%	19%	12%	17%	21%
No constraints	6%	3%	4%	0%	14%	8%	n/a

Source: Federation of Master Housebuilders 2018 Members Survey[8]

The Scottish Government's (2009) guide on development viability, expressly prepared to inform the work of local planning authorities, highlights the financial impact of regulatory delays, uncertainties and additional planning requirements. In the case of three hypothetical residential examples, which illustrate specific planning requirements for lower density, better materials and community benefits, development profits are shown to be reduced by up to 31%. This comes on top of the £400,000 considered as a typical sum needed to prepare a planning application for 100 new homes once account is taken of all necessary professional and technical work[9].

The Callcutt Review (2006) estimated that, across all site sizes, it took on average 4.2 years to navigate the 'raw land' through the development process, rising to 5.8 years for sites of 150 homes or more. A later Local Government Association (LGA) study estimated that, across all site sizes, it took on average of 1.7 years to navigate land through the 'post-planning permission' and this rose to 3.2 years for sites of 100 homes or more. New data for 2017, from Barbour ABI, indicates that 'post-planning permission' development timescales have increased markedly: on sites of 20 homes or more it now takes at least four years on average from the grant of detailed planning permission to site completion[10].

2.2.1 Impacts on affordability

As a result of these delays and inefficiencies, the planning system in the UK is often cited as a major cause of the housing affordability crisis[11].

Comparisons of generational housing costs supports a view that housing is becoming less affordable for younger generations, in part due to lack of supply.

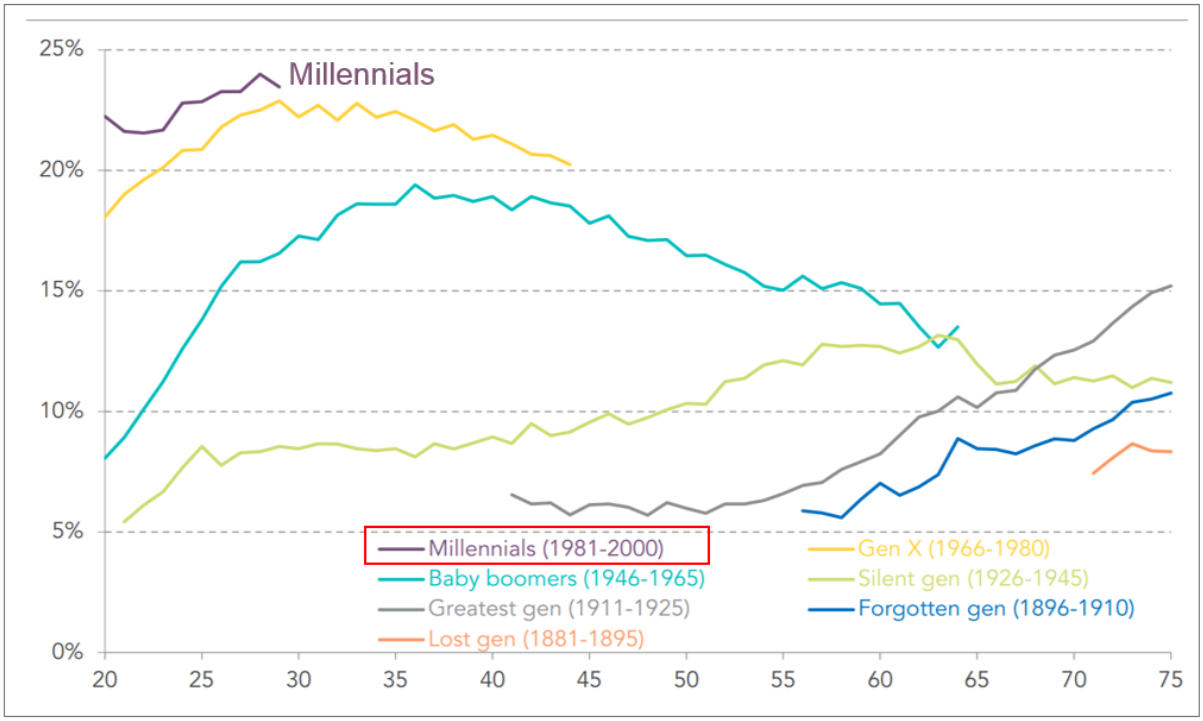
[8] Federation of Master Housebuilders (2018)

[9] See Adams & Watkins (2014)

[10] Chamberlain Walker & Barratt Developments PLC (2017)

[11] Hilber (2015); Cheshire (2007) and (2014); Cheshire et al (2014); Hilber & Vermeulen (2014); Overman (2013)

Figure 2.4 Percentage of income spent on housing by generation[12]



Source: Resolution Foundation (2017)

Access to housing to buy is increasingly becoming unachievable for younger generations, with it estimated to take almost 8 years for first time buyers to save for a deposit, with this figure rising to over 11 years in Edinburgh.

Table 2.2 Time taken for FTB to save for deposit by Scottish region

Region	Average House price	Median Hourly Pay	Saving time for 10% deposit
Aberdeen	£163,847	£13.73	7 years, 10 months
Dundee	£119,155	£12.24	6 years, 3 months
Edinburgh	£238,447	£13.70	11 years, 2 months
Glasgow	£123,607	£12.90	6 years, 2 months
Highlands	£155,676	£11.85	8 years, 4 months
Perth & Kinross	£178,940	£11.28	9 years, 11 months
Scottish Borders	£152,467	£10.50	9 years
Shetland	£164,384	£13.20	8 years. 1 month
Western Isles	£93,015	£11.80	5 years, 1 month
Scotland	£144,253	£12.17	7 years, 8 months

Source: BBC Scotland

More widely, the role of housing in growing economic inequality has been examined in the now famous book by Piketty (2005). Subsequent critiques of this analysis place a greater role on the rise in real estate value in driving inequality, with Rognile (2015) stating that change in net capital share "*turns out to come entirely from the housing sector.*" This is wealth that has been largely captured by the 'Baby Boomer' and 'Gen X' generations at the expense of the 'Millennials'. Although there are a myriad of reasons for this, including lax credit availability and Government pro home ownership policies, a comparative lack of supply since the late 1970s is also clearly a cause, especially at a time of rising population and new household levels.

[12] Resolution Foundation (2017)

In considering the impact of the housing market on affordability the Reading University - CLG's affordability analysis model was created (ODPM, 2005). This model suggests that both stock and flow effects are significant, but that the long-run price is determined by the stock, whereas the speed of adjustment is affected by the flow.

It is suggested that because new build homes in the UK only account for around 2% of total housing stock that its impact on prices is virtually zero[13]. However, others make the point that only a small proportion of existing stock is traded at any one time, so that new housing coming onto the market can have a direct impact on price[14]. Data from the Scottish market confirms that typical new build sales account for c.10-12% of transactions and this can be far higher in local communities that are experiencing significant levels of development, although the nature of the relationship between development levels and house price changes is unclear. Nevertheless, new home building activity can bring choice and opportunities to communities.

The model developed for the ODPM considered the issue of affordability and new build, and showed that impacts vary by location. The study compared high growth high demand Reading with low growth low demand Knowsley. In both cases, the affordability ratio fell 0.26 as a result of the new supply, but due to different factors. New housing in high demand areas fuelled migration from lower demand areas, whereas new housing in lower demand areas then created vacancies in existing housing stock as occupiers traded up.

New housing stock also encourages the formation of new households rather than remaining living with parents or sharing with friends[15]. The ODPM model concluded that 100,000 additional dwellings would produce extra 30,000-35,000 new households at a national and regional scale.

The Spatial Economics Research Centre (SERC) at the London School of Economics (LSE) stated that there is evidence that planning policy increases house prices, reduces housing quality and increases housing market volatility[16].

House price pressure is particularly acute in areas of high demand, where supply is more restricted. Research suggests that in places with tight regulatory constraints, house prices respond much more strongly to labour demand shocks than in places with less tight constraints[17]. According to the estimates, house prices would have risen by about 100% less in real terms between 1974 and 2008 if, hypothetically, all regulatory constraints were removed. If the South East (the most tightly regulated English region) had the regulatory restrictiveness of the North East of England (less regulated, but still restrictive by world standards), house prices in the South East would have been roughly 25% lower in 2008 and 30% lower in 2015[18].

This is a considerable underestimate of the true costs because it ignores the effect on UK house prices overall, as well as any effects on the composition of housing, e.g. the fact that planning restricts the supply of land so that new homes are smaller (see Cheshire, 2009). Tightly controlled land supply, through the planning system, creates an interdependency between housing and land markets[19], which

[13] Adams and Tiesdell (2013)

[14] Bramley and Morgan (2003)

[15] Meen & Andrew (2008)

16 Cheshire et al (2012)

[17] Hilber & Vermeulen (2014)

[18] Hilber (2015)

[19] Evans (2003)

causes greater volatility in the UK housing market compared to other European markets[20]. It has been argued that this volatility undermines overall macroeconomic stability[21]. In the UK, this was clearly seen with the housing market crashes of the late 1980s and 2008-09 being major causes of the economic recessions that followed.

The speculative nature of land values has been shown in a New Zealand study to impact new housing construction. A 1% increase in land prices is estimated to lift total development costs by 0.33%, in turn reducing house supply by an estimated 0.37%. Thus regulations, such as zoning restrictions, that impact on the availability of residential land (forcing up residential land prices) induce lower house supply and raise house prices in affected authorities[22].

There has been a number of academic studies that have addressed the impact of new housing supply on house prices using different methodological approaches. A series of studies combined hedonic house price techniques with microeconomic demand theory in Reading, Darlington and Nottingham, with different degrees of planning restraint to simulate changes in restrictions and impacts across the wider region[23]. The studies reported that planning controls on the 'restrictive' locality of Reading were estimated to raise the average house price on the market by 6%-8%. Findings from these studies also found that removing restriction on the outward development of the town (i.e. containment) would in the long-run lead to a dramatic reduction in housing densities and that the loss of welfare from this restriction was in the order of 10%-13% of total income[24].

Other studies have suggested that releasing 10% more land could lower house prices by 1.5%–3%, while releasing 50% more could reduce prices by 7.5%–14.5%[25]. The impact of affordability in a Scottish context was considered in the Leishman et al. (2008) study for the Scottish Government. This model suggested that raising new additions to the housing stock by 40% from 25,000 per annum to 35,000 per annum would reduce the house price to income ratio from 6.8 to 6.2; a reduction of 9%. The model's results suggested that price and affordability effects were smaller in the more pressured regions like Edinburgh and Aberdeen.

However, it has also been found that the impacts on affordability of increasing housing supply may occur over the medium to long-term time horizon and are not felt immediately[26].

In England, it was found that in order to get average annual completions up from 200,000 per annum to 230,000 (15% increase), it would be necessary to raise the flow of new permissions by 85,000 per annum (43% increase), while also increasing social housing outputs by 10,000 (20%)[27]. Other

[20] Cheshire (2009); Hilber & Vermeulen (2014)

[21] Regeneris Consulting & Oxford Economics (2010)

22 Grimes & Aitken (2006)

[23] Cheshire & Sheppard (2002)

[24] Bramley (2013)

[25] Bramley (2013)

[26] Leishman et al (2008)

[27] Bramley and Watkins (2008)

studies, over a longer period in England, returned findings that suggested that if all planning permissions were accepted, house prices in the average locality would be 22%–38% lower, while price volatility would be 30%–50% less. These effects of regulation were substantially larger than the effects of physical and topographic constraints[28].

Unlocking an increase in supply of land is challenging as a number of issues may restrict development, even when planning is granted. Land with planning may be poorly located or lacking infrastructure and services, or the owner may not be motivated to seek development in the short-term. There is also the argument that land speculation and land banking is preventing the identified units from being developed. A Guardian investigation in 2015 suggested that the nine home builders in the FTSE 250 hold over 600,000 housing plots in their land banks, four times the total number of homes built in Britain in the past year[29]. This has been cited as revealing the dysfunctional nature of the UK home building system and the need for consideration of the model[30]. The industry has countered this through research that asserts that it is issues within the planning system that causes delays and uncertainty, which are accommodated in the land bank, rather than developers purposely withholding land on a systematic speculative or market distorting agenda[31].

A recent study found that there are clear research and evidence gaps on land portfolios and perceptions of land banking. It found most of the existing evidence to be partial and much of the information on the function of land banks coming from now dated studies[32]. However, it did appear clear, when looking at a range of evidence to conclude that, "*UK house builders' models do not depend upon profiting from land banking*."

A further consideration lies in the ability of the market to respond to demand. The restrictions cover not only the total number of units that progress through the planning system, but also restrictions on type and density[33]. Stricter regulations (e.g. on what can be built and to what specification) can be argued to be inefficient in responding to changing demand[34].

These topics were covered comprehensively in The Letwin Review in 2018, which concluded that it was the homogeneity of the types and tenures of housing on offer and the limits on which the market can absorb these products that are the fundamental drivers on the low rate of build out on many sites[35].

[28] Hilber & Vermeulen (2014)

[29] The Guardian (2015)

[30] Jeffreys (2015)

[31] Chamberlain Walker & Barratt Developments PLC (2017)

[32] Payne et al (2018)

[33] Bramley et al (1995); Adams & Watkins (2002)

[34] Harrison (1977)

[35] Letwin (2018)

2.2.2 Impacts on the environment

The policy of protecting the Green Belt is often cited as demonstrating the environmental benefits of planning policy. However, again the policy of containing development has consequences.

The well-established policy of 'containment' of development within cities to existing built-up areas through the Green Belt[36] limits development where demand and economic benefit is greatest[37], effectively imposing a development tax on urban businesses[38].

Managing urban sprawl may be valuable, however, this can lead to development simply 'leapfrogging' the restrictions and developing rural areas not safeguarded in the same way, and also ultimately leading to increased commuting, congestion and pollution than relaxing restrictions might have achieved[39].

A study examining London's Green Belt estimated there is 20,000 hectares of land within 800 metres of a station in London's Green Belt that has no markers of environmental quality. It estimated that if half this area was re-designated, it could accommodate 500,000 homes in less than 2% of the Green Belt space[40].

2.3 ECONOMIC IMPACTS

The importance of housing goes beyond the simple provision of shelter; it plays a significant role in the economic function of the country. In the first instance, the construction of homes is an important economic function providing direct deployment of capital, employment, construction, sale, turnover, repair and maintenance[41].

Beyond this, there is a wider economic role, as noted in the Barker Report (2004), "*a weak supply of housing contributes to macroeconomic instability and hinders labour market flexibility, constraining economic growth."* Home building therefore plays a critical function, both in the direct economic impact and also through various indirect and induced effects it has on economies and communities, at both a local and national level. Indeed, "*housing policy, is part of economic policy."*[42] Whereas planning, "*adds value to development activity, the benefits will be reflected in stronger economic growth and enhanced development viability*", but also poor planning can threaten longer term investment value and create social and individual costs[43].

[36] Hall et al (1973)

[37] Muth (1969); Evans (1973); Bramley et al (1995); Adams and Watkins (2002)

[38] Cheshire and Hilber (2008)

[39] Barker (2004)

[40] Stringer (2004)

[41] Gibb and Keoghan (1998)

[42] Munday et al (2004)

[43] Adams & Watkins (2014)

In 2017/18 home building generated £38 billion of economic output to the Great Britain economy[44].

2.3.1 Gross Value Added

The construction of new homes has a significant direct economic impact and its value can be quantified by various means, such as employment figures and Gross Value Added (GVA) to the economy.

Official government statistics estimate that the Scottish construction sector (including housing but also other forms of development) contributed £7.1 billion in GVA in 2016, a fall of £0.1 billion (0.9%) from the previous year[45]. This equates to a GVA per head of £52,974 (much higher than the national average of £23,685). Notably, within the sector, Scottish registered firms accounted for 80.4% of GVA and 86.2% employment, whereas in the manufacturing sector, foreign-owned companies accounted for 40.8% of GVA and 30.3% of employment. This illustrates the impact that the construction industry has domestically.

Scottish Government Input-Output tables for construction return a Type 1 GVA Multiplier of 1.6 for direct and indirect effects, and 2.0 for Type 2 including induced effects[46].

2.3.2 Employment

The home building sector is a major employer in Scotland, supporting an estimated 80,000 direct, indirect and induced jobs, or 4.1 jobs per home built [47]. It is estimated that a return to 2007 levels of home building would create 20,000 new jobs[48]. The affordable housing sector in Scotland is estimated to contribute 14,000 jobs alone[49].

It is also estimated that c.1,800 firms are directly engaged in home building activity in Scotland[50] and 8 of top 150 companies in Scotland are residential home builders[51], which generate over £1,900 million in turnover, £150 million in profit and employ around 4,195 staff. These company figures do not reflect the indirect and induced impacts of the supply chain in supporting the direct production of new homes within Scotland.

A Housing Forum (2014) report for the UK suggests that the top 10 home builders (by volume) account for 55% of new housing supply annually. This concentration is significant in considering both the reliance on and impact of major home builders on the economy and the delivery of homes.

2.3.3 Training

In addition to direct construction employment, the home building sector has been a key growth area for the provision of apprenticeships and training. Skills Development Scotland reported a 21%

[44] Nathaniel Lichfield & Partners (2018)

[45] Scottish Government (2018a)

[46] Scottish Government (2017b)

[47] Nathaniel Lichfield & Partners (2016), updated

[48] Holyrood Magazine (2016)

[49] Scotsman (2017a)

[50] Nathaniel Lichfield & Partners (2016)

[51] Scottish Business Insider (2017)

increase in Modern Apprenticeship (MA) starts to Construction & Related Frameworks in 2016/17, with 1,040 new starts. This figure is a 57% increase since 2012/13.

Construction & Related Frameworks has consistently been the highest volume MA grouping since 2012/13, with 11,132 MA in training in Construction & related frameworks. Notably, the highest uptake for 16-24-year olds in MA schemes are from areas of the highest deprivation, according to Scottish Index of Multiple Deprivation (SIMD), and outwith the main urban economic centres[52].

2.3.4 Public finances

As shown in the Nathaniel Lichfield & Partners (2016) study, housing helps with public finances and raising revenues for public spending. Some of the key ways in which it does this are summarised below.

Land & Building Transaction Tax (LBTT)
Over the course of 2017/18, £258,386,000 in residential LBTT was generated, with an additional £124,592,000 in Additional Dwelling Supplement (ADS)[53], less £29,947,000 in ADS Repayments. Totalling £353,031,000. Estimates have suggested that c.10% of this revenue could be attributable to new build homes.

Corporation Tax & PAYE
It is estimated that home builders in Scotland pay over £53 million of corporation tax each year. Home builders also make a significant contribution to HMRC revenues through employee related National Insurance and Pay As You Earn (PAYE) contributions, which are estimated to total over £64.3 million per year. This figure excludes tax paid by employees in contracted firms and the wider supply chain[54].

Landfill tax, business rates & Value Added Tax (VAT) paid for non-construction related goods/services
Industry statistics have suggested that for every £1 spent by the public sector on new homes, 56p returns to the Exchequer, of which 36p is direct savings in tax and benefits[55].

Local Authority Council Tax
Estimates of the additional council tax revenue generated by new homes has been undertaken by taking the average council tax (£1,069 for Scotland) and multiplying by new homes completions (17,129 in 2016/17), which would generate £18.3 million.[56] However, this type of approach does not adequately account for the costs of providing the services, so should not be regarded as 100% gain.

[52] Skills Development Scotland (2017)

[53] Revenue Scotland (2017/18)

[54] Nathaniel Lichfield & Partners (2016)

[55] Lek Consulting (2011)

[56] Nathaniel Lichfield & Partners (2016)

Section 75[57]
There was around £83.7 million of investment in Scotland through S75 agreements in 2014/15 alone. This included:

- £46.8 million contribution towards affordable housing delivered by local authorities and housing associations, equivalent to £3,020 per market home built. In addition to the 970 affordable homes built directly by home builders during 2014/15, 3,353 new affordable homes were delivered by public authorities and housing associations using developer contributions from previous years, alongside other sources of funding.
- £13.3 million investment in school places, equivalent to £855 per home built (this may be an underestimate as education contributions are rising significantly in some local authority areas).
- £2 million into sport and leisure facilities, equivalent to £128 per home built.
- £2 million into public open space facilities per annum (excluding private gardens and landscaping), equivalent to £128 per home built.
- £330,000 towards youth/community facilities, equivalent to £21 per home built.
- £19.3 million towards other community facilities including infrastructure improvements, public transport and public art, equivalent to £1,242 per home built.

2.3.5 Additional economic benefits

As detailed by Nathaniel Lichfield & Partners (2016), in addition to the direct economic benefits generated through construction and employment, attempts have been made to quantify the additional benefits that are accrued in an area from additional spending by new residents occupying newly constructed homes. Simple approaches such as using average weekly household spend in Scotland (£492.40 per week) against housing completions (17,129 new homes completed in 2016/17) have been used to generate estimates, in this case £101.2 million annually, or just under £6,000 per annum per new home.

2.3.6 Economic benefits of increased housing

Nathaniel Lichfield & Partners (2015) considered the economic benefits of housing and their findings are summarised in the table below. Housing currently is responsible for over £19 billion of economic output, with the potential to raise this to nearly £33 billion if a 100,000 new homes a year target could be met.

Housing is also responsible for creating over 600,000 jobs in the UK, with the potential to raise this to over 1 million.

Housing also generates around £2.6 billion of government revenues, which could go up to around £4.5 billion with the same 100,000 target.

[57] Nathanial Lichfield & Partners (2016)

Table 2.3 Summary of economic benefits of building 100,000 new homes a year in the UK

Type of Economic Benefit		Annual Economic Footprint		
		Current Delivery[61]	Potential Uplift[62]	Total Potential Footprint[63]
Net Capital Expenditure	Acquiring or upgrading physical assets to support day-to-day operations	£1.5bn	+£1.1bn	£2,6bn
Economic Output	Builders, their contractors and suppliers	£19.2bn	+£13.6bn	£32,8bn
Employment	Direct	233,300	+165,500	398,800
	Indirect	181,970	+129,100	311,100
	Induced	191,310	+135,700	327,000
	Total	606,580	+430,400	1,037,000
UK Public Finance Revenue	Stamp Duty Land Tax Receipts	£355m	+£252m	£607m
	Corporation Tax Incurred	£359m	+£255m	£614m
	NI and PAYE Contributions	£807m	+£573m	£1.38bn
Local Authority Revenue	New Homes Bonus payments[64]	£917m	+£651m	£1,57bn
	Council Tax Receipts	£180m	+£128m	£308m
Local Community Benefits	S.106 Contributions	£576m	+£409m	£985m
	Community Infrastructure Levy Payments	£33m	+£23m	£56m
	New Resident Expenditure	£4.5bn	+£3.2bn	£7.7bn

Table 4: Economic benefits of increasing housing supply (by 100,000 units per year)
Source: Summary of Economic Footprint Analysis presented in section 5 / NLP

Savills (2010) and Oxford Economics also considered the impact of building 100,000 new homes in England. On a pro-rata basis for Scotland, c.10% of these national figures would be expected.

- Building 100,000 homes would create around 228,000 direct construction jobs and a further 228,000 jobs on the supply side.
- An ODPM study suggests that every 100,000 additional dwellings would produce an extra 30-35,000 households nationally, although this impact may be spread across national and regional areas and not directly within the local market.
- The reduction in benefits and unemployment is estimated to make an annual saving of £1.1 billion per year by the end of a parliamentary session.
- Over the life of a parliament, these new homes would reduce government borrowing by around £23 billion through increased tax revenues and the reduced benefit bill.
- This level of increased housing output could add 1% of growth to the economy.

A HACT study[58] exploring the social impact of housing providers suggested that the creation of 2,000 new homes for 6,000 tenants could result in 100 additional jobs. The report said that the value of employment can be assumed to be about £8,700 per year in addition to the wage income. HACT assumed that the workers would see an increase of £10,000 in annual income (calculated as new wage income minus any unemployment benefits they will no longer receive). These calculations mean that employment has a value of £18,700 per year to each individual. This is a total value of £3.7 million for two years.

The current inability of Scotland (and the wider UK) to build enough homes to satisfy need and demand is seen as harmful to productivity and restricts labour market flexibility. In its productivity drive, the UK Government placed 'making more homes to buy' and 'greater planning freedom' as two of its key strategies in helping to create a more dynamic economy that will raise productivity levels[59].

[58] HACT (2013)

[59] HM Government (2015)

2.4 SOCIAL IMPACTS

Residential development also has a number of social impacts, some of which are quantifiable.

Home builder Redrow, in partnership with Simetrica, has developed a 'social value calculator' to put a monetary figure on factors related to place-making in new developments.

Redrow residents were surveyed on certain characteristics and these were translated into monetary values by Simetrica, adopting some of the methods used by the government to quantify the social impact of its policies.

The calculator found that a well-designed housing development with good neighbours who speak to each other regularly and welcome new residents could generate just over £34 million of social value. This is based on a 250-home development over a period of 25 years[60].

2.4.1 Housing stock

A key, but often overlooked impact of new housing, is in improving the existing housing stock. The introduction of the Scottish Housing Quality Standard (SHQS) in 2004 set the standard that social housing had to meet by 2015 and which, in 2008, 64% of homes in Scotland failed (1,115,000 in the private sector / 387,000 in the social sector).

The introduction of this housing policy has not only seen the ratio of homes failing this measure fall to 45% in 2016, but also helped sustain jobs in the construction industry through a period of lower home building[61]. In addition to improving existing stock, new homes supply, built to modern building regulations, has strong energy and environment implications. New home building regulations have reduced carbon emissions by 75% compared to 1990 levels. A further benefit of improved energy efficiency and reduced utility bills is on household expenditure, creating greater disposable income to spend in the local economy.

2.4.2 Children's health & educational impacts

Shelter (2006) reports that poor housing can contribute to up to a 25% higher risk of severe ill-health and disability during childhood and early adulthood; a three to four times higher likelihood of suffering mental health problems, with mental health issues such as anxiety and depression have also been linked to overcrowded and unfit housing.

Children in overcrowded housing are up to ten times more likely to contract meningitis than children in general. There is also a direct link between childhood tuberculosis (TB) and overcrowding. Almost half of all childhood accidents are associated with physical conditions in the home. Children living in overcrowded and unfit conditions are more likely to experience respiratory problems such as coughing and asthmatic wheezing. For many children this means losing sleep, restricted physical activity and missing school. Furthermore, poor housing conditions impact on educational attainment. It has been demonstrated that children who lived in crowded conditions (on average) completed almost a quarter year less schooling than those who lived in more spacious conditions[62]. Cramped conditions can lead to poor hygiene and limited cooking facilities can result in a poor diet, presenting long-term

[60] Property Week (2018)

[61] Munday et al (2004)

[62] Conley & Dalton (2001)

health risks. Both lower educational attainment and health conditions can have lasting impacts into adulthood[63].

Having been on a downward trend, the number of children in temporary accommodation is now rising, hitting record numbers in 2017/18 - in Edinburgh (1,095; up 40% year on year), West Lothian (420; up 33 per cent) and Midlothian (310; up 5 per cent). Across Scotland this number rose from 6,615 in March 2018 to 6,795 in March 2019, and increase of 3% year-on-year. Robert Aldridge, Chief Executive of Homeless Action Scotland, said, *"These figures are a stark warning that housing policy is failing to cope with market forces and austerity."*[64]

2.4.3 Social opportunity

Housing and the residential environment play a large part in determining life chances and livelihoods[65]. The qualities and amenities of places are crucial not just for attracting labour but also for developing the capacity of the population to improve their economic and social outcomes[66].

The concentrated levels of deprivation associated with mono-tenure social housing estates have, however, provided enough evidence for many that communities need to be mixed, if they are to be sustainable[67]. Policies that favour multi-tenure (tenure blind) development and ownership staircasing have the potential to deliver such communities in a way that is unachievable in existing stock where ownership patterns are more firmly established.

2.4.4 Regeneration and place competiveness

Placing a value on regeneration has been approached in a number of ways in the literature, including a DCLG (2010) study that examined how the benefits of regeneration might be valued through developing a practical methodology.

This report acknowledges the range of measures that could be considered in seeking to value the benefits of regeneration, including different markets, beneficiaries and how different categories may benefit over different time periods; and how this occurs both through the process and through the finalised product, both direct and indirect.

This study showed that commercial property development was by far the most effective regeneration strategy on a Benefits Cost Ratio (BCR) basis. As the table below shows, the DCLG (2010) calculated that for every £1 of public expenditure cost spent on industrial and commercial development for regeneration purposes, £10 of benefits were gained under their 'central scenario', higher than any other activity type and significantly higher than most activity types.

As it does not have the same operational impact, housing does not score as well, but various types of housing activities have a BCR of 2-5.5, which would also be seen as strong.

[63] Shelter (2006)

[64] Scottish Government (2018b), Scotsman (2017c)

[65] Feinstein et al (2008)

[66] Clark (2014)

[67] Tunstall and Fenton (2006); JRF (2006); SDC (2006); TCPA (2006)

Table 2.4 Benefit Cost Ratios of various regeneration schemes

Figure 2: Benefit Cost Ratios by Activity Type – central and cautious valuation applied to outputs derived using average unit costs			
Activity type	**Valuation basis**	**Central valuation**	**Cautious valuation**
Theme 1: Worklessness, skills and business development			
Tackling worklessness	Consumption benefits (earnings) plus indirect crime and health benefits	1.04	1.04
Skills and training	Production benefit - Earnings uplift arising from skills enhancement	2.2	1.6
General business support	Production benefit - GVA	8.7	6.0
Start-up and spin-outs	"	9.3	6.8
Business enterprise research & development	"	2.5	1.8
Theme 2: Industrial and commercial property			
Industrial and commercial property	Production benefit - GVA	10.0	5.8
Theme 3: Homes, communities and environment			
New build housing	Consumption (property betterment) and production benefits (GVA)	2.6	1.7
Housing improvement	Consumption benefits - property betterment and social benefits	2.0	1.3
Acquisition, demolition and new build	Consumption benefits - property betterment and visual amenity enhancement	5.5	3.7
Communities: Volunteering	Shadow price of volunteer inputs - minimum wage	1.1	1.1
Communities: investing in community organisations	Shadow price of social enterprise 'GVA'	1.8	1.3
Environmental: open space	Consumption benefits - Willingness To Pay	2.7	1.8
Environmental: public realm	Consumption benefits - Willingness To Pay	1.4	0.9
Neighbourhood renewal	Consumption benefits - value transfer from NDC evaluation which adopted shadow pricing approach	3.0	3.0
All Activity Types (real resource)		**3.5**	**2.3**

Source: DCLG, 2010

This approach accessed both the cost to the public sector of creating the additional benefit and to the value that society assigns to each benefit produced. Others, such as independent think tank NEF (2006), have considered how policy is measured and impacts deprived areas, or fail to do so. It has been noted that there has been a shift over time from evaluating outputs such as numbers of homes

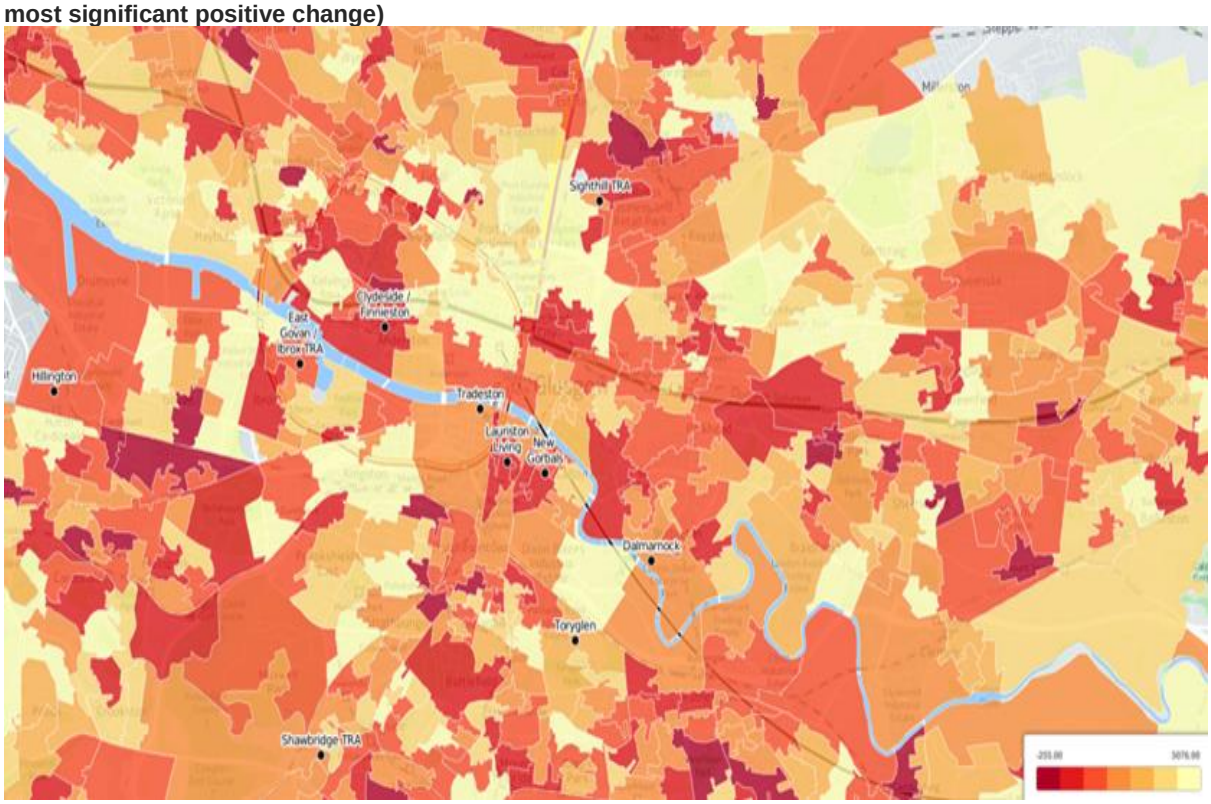
and jobs created to evaluating social exclusion characteristics, such as wellbeing, crime and deprivation indicators[68].

The case for housing to be seen as essential infrastructure has been made by the likes of the Chartered Institute of Housing (CIH) and Home Builders Federation (HBF), with businesses and local leaders raising concerns that a lack of suitable and affordable housing is impacting employment and growth[69].

Providing the correct supply and type of housing in the correct location is important for both the local and national economies (Gibb et al 2008 and Maclennan 1982). It has been evidenced that providing a higher quality housing environment can play a role in attracting investment, jobs and highly skilled workers[70], influencing a place's competitiveness[71].

It appears clear in the case of Glasgow, for example, that development-led Transformation Regeneration Areas (TRAs) across the city have had a significant effect in lifting areas out of sustained periods of deprivation, as highlighted in the heat map below, which considers changes in Scottish Index of Multiple Deprivation (SIMD) ranking across parts of the city over the period 2006-16.

Figure 2.5 Change in SIMD ranking over a 10-year period to 2016 (redder areas have experienced the most significant positive change)



Source: Rettie & Co/SIMD

Wider research reaffirms that the local housing system should evolve to match both demand and aspiration to attract and retain key workers, high skilled employees and entrepreneurs[72]. A study

[69] Glaesar (2010)

[70] Meen et al (2005)

[71] Begg (1999)

72 Simmie et al (2006)

considering Edinburgh and Glasgow[73] argued that new housing increased competitiveness by providing an adequate and responsive supply of housing, providing a high quality living environment and promoting urban vitality.

Higher rates of new housing supply may have important labour market effects, increasing sub-regional household incomes and wealth[74]. Research has also shown how regional house prices can prevent labour mobility between UK cities[75].

The role of labour mobility and housing has been subject to review and the literature suggests that housing tenure can inhibit labour mobility and productivity, with relatively low levels of private rental in the UK, for example, compared to the US has been cited as illustrative of this[76].

However, conversely, UK labour mobility figures appear to be in line with European levels and, furthermore, the importance of the role of new homes in boosting labour mobility should not be overstated as around 90% of home moves are not related to employment[77].

73 Bramley and Morgan (2003)

74 Fingleton (2008)

75 Muellbauer and Murphy (2008)

76 DTZ (2006)

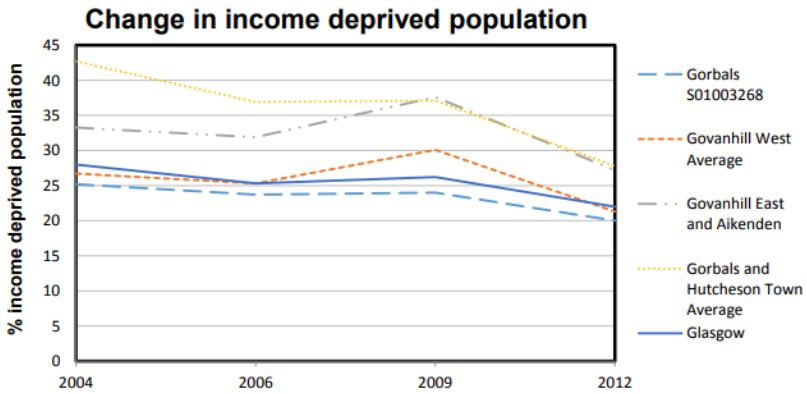
77 Regeneris Consulting & Oxford Economics (2010)

2.4.5 Case Study - Gorbals Regeneration

As part of a study into the effects of the Gorbals Regeneration (Crown Street) project, Govanhill East and Aikenden (five data zones) was chosen as a comparator to the wider Gorbals and Hutcheson Town (five data zones) due to their comparable SIMD rankings. The study found that while the Gorbals and Hutcheson Town benefited from the partial regeneration via the Crown Street project, Govanhill East and Aikenden did not. Going from a more deprived starting point, economic improvements in the Gorbals and Hutcheson Town have been much more rapid than those in the areas that did not benefit from the regeneration[78].

% of **income** deprived population				
	2004	**2006**	**2009**	**2012**
Gorbals S01003268	25.2	23.7	24.0	20.0
Govanhill West Average	26.7	25.3	30.1	21.3
Govanhill East and Aikenden	33.3	31.9	37.6	27.2
Gorbals and Hutcheson Town Average	42.7	36.9	37.1	27.8
Glasgow	28.0	25.3	26.2	22.0

Chart 1.:



Source: New Gorbals Housing Association

[78] Pendlebury (2015)

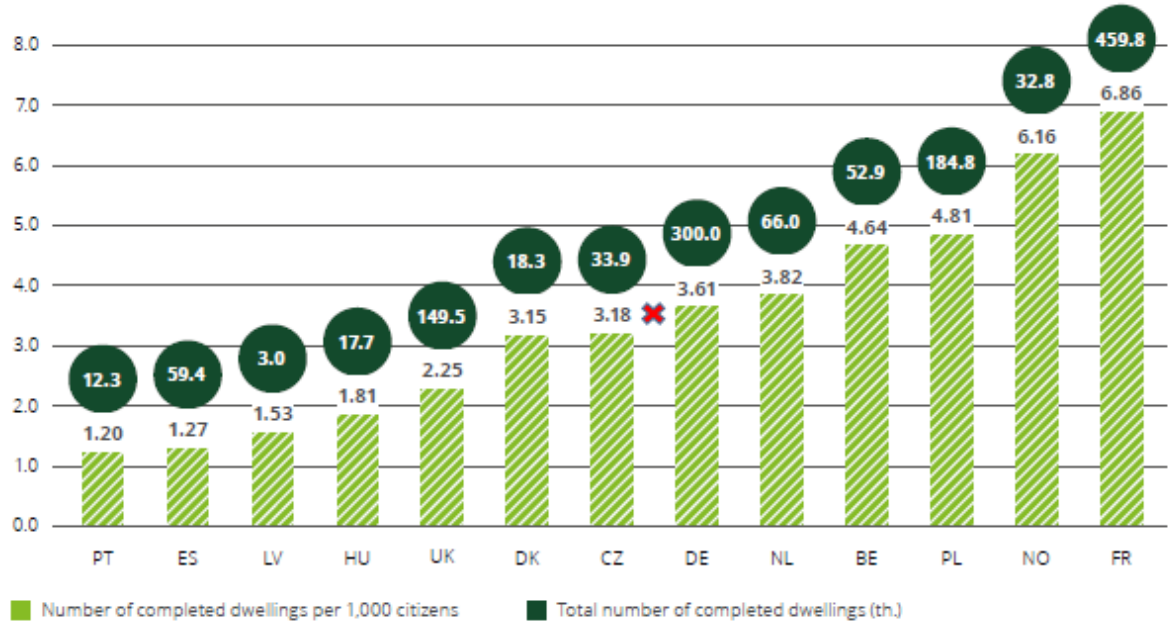
2.5 INTERNATIONAL CONTEXT

Placing UK planning in a European context, the UK is noted as a country with high house price growth rates and volatility, low affordability, and low housing delivery, and with a planning system with a high degree of flexibility, discretion and negotiation. These traits arguably increase uncertainty and, in turn, developer risk, costs and pace of development[79].

There is a consensus that a shortage of land is a key constraint[80], with evidence put forward arguing that the process of development control necessarily makes the supply of new development more inelastic[81] and therefore inefficient in responding to demand[82].

Scotland also has a relatively low level of development intensity on the basis of completions in 2018, but its higher level of starts (boosted by Scottish Government funding for affordable housing) brings it into a mid-table position in a European context. Scotland also has a relatively higher level of dwelling per 1,000 citizens than the wider UK and again around mid-table in a European context, partly reflecting Scotland's higher per capita rate of home building than the UK over a period of time.

Figure 2.6 Housing development intensity in the UK and Scotland is relatively low in an EU context on the basis of new completions in 2018[83]
Index of the number of completed dwellings per 1,000 citizens, Scotland marked with a Red X



Note: Scotland is not included as a separate country in this analysis by Deloitte, but where Scotland sits within this hierarchy has been estimated by Rettie & Co based on evidence from 2018

[79] De Montfort (2009)

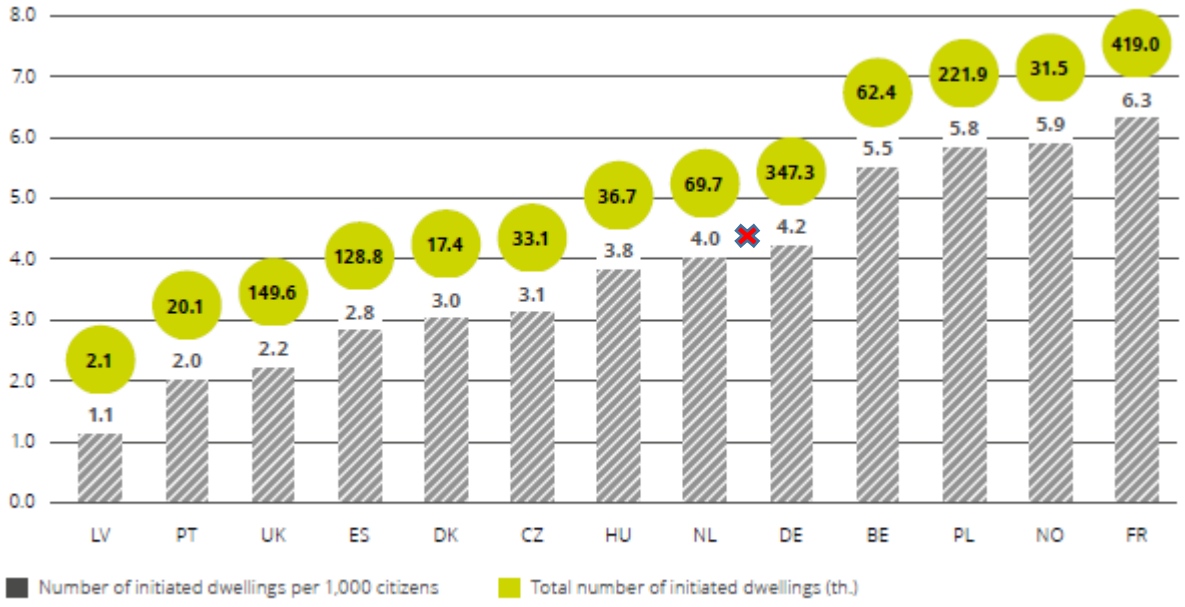
[80] Barker Review (2004)

[81] Mayo and Sheppard (2001)

[82] Harrison (1977)

[83] Deloitte (2018).

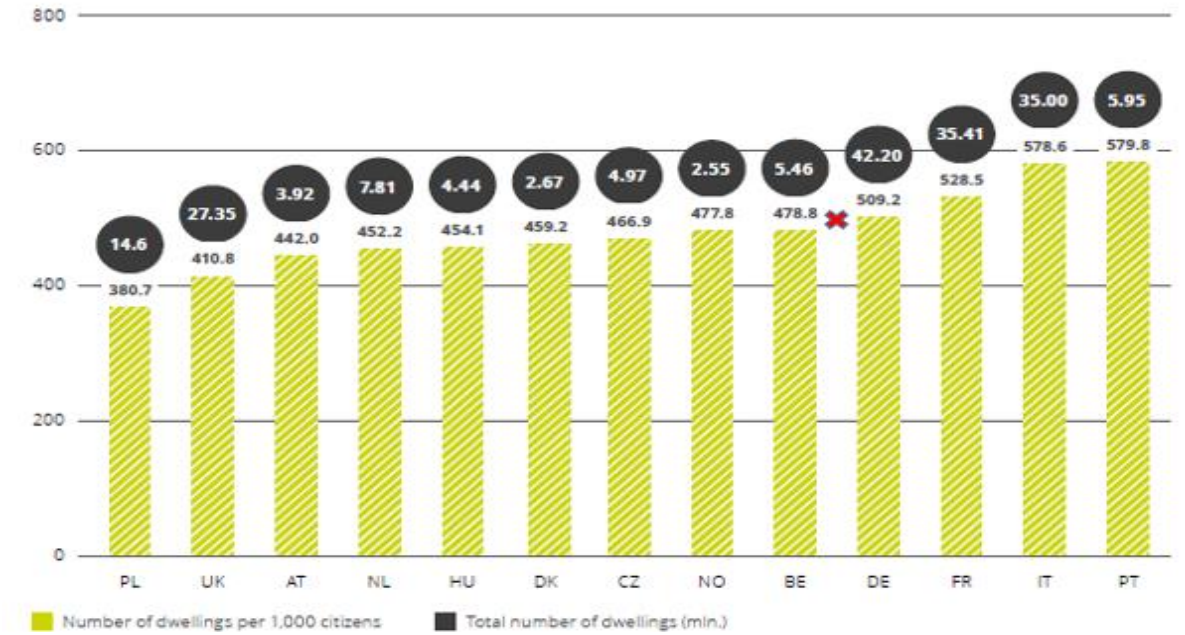
Figure 2.7 Housing development intensity in the UK is also relatively low in an EU context on the basis of new starts in 2018 but Scotland performs better[84]
Index of the number of initiated dwellings per 1,000 citizens, Scotland marked with a Red X



Source: National Statistical Authorities, Euromonitor International, calculated by Deloitte

Note: Scotland is not included as a separate country in this analysis by Deloitte, but where Scotland sits within this hierarchy has been estimated by Rettie & Co based on evidence from 2018

Figure 2.8 The UK has a relatively low number of dwellings in an EU context but the position is better in Scotland[85]
Total no. of dwellings and no. per 1,000 people, Scotland marked with a Red X

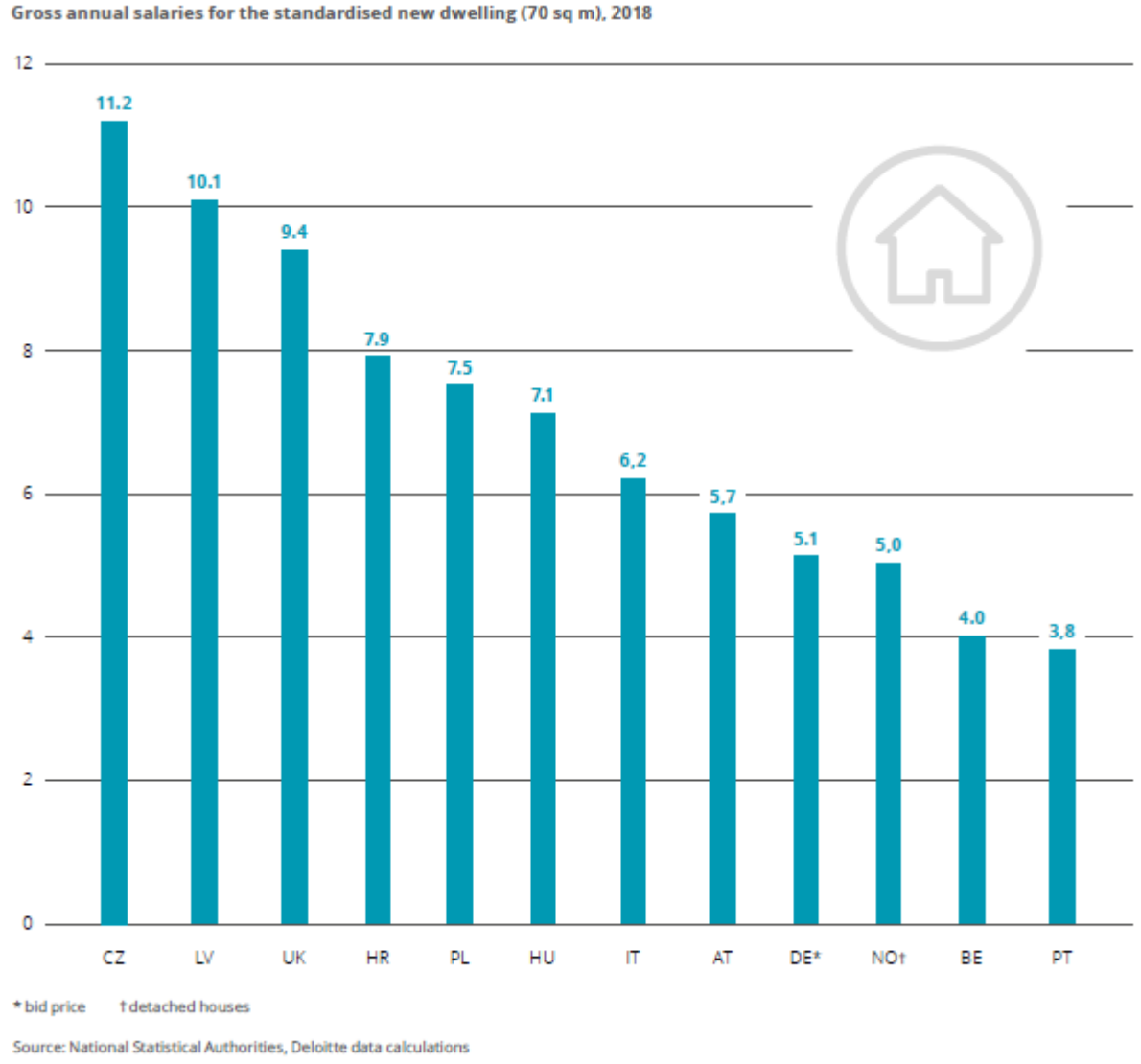


Note: Scotland is not included as a separate country in this analysis by Deloitte, but where Scotland sits within this hierarchy has been estimated by Rettie & Co based on evidence from 2018

[84] Deloitte (2018)

[85] Deloitte (2018)

Figure 2.9 Affordability of housing in various EU countries[86]
Gross annual salaries for the standardized new dwelling (70m2), 2018



Note: Not possible to calculate separately for Scotland based on available data sources.

[86] Deloitte (2018)

3 SUMMARY OF KEY FINDINGS AND CONCLUSIONS

Planning for development has been shown in the literature to provide a number of value measures, not just economic, but also in terms of use, social value, environmental value, image value and cultural value.

However, residential development is clearly at much lower levels than it should be, causing unmet need and demand. The planning system is viewed by the home building industry as a major constraint in building enough units.

The lack of home building in Scotland, especially in the main cities, has caused significant affordability issues, especially for younger people, and has increased wealth inequalities.

It has also created difficulties for older people, with a dearth of suitable quality homes for a rapidly increasing older population and supply of sheltered and extra care housing at around 40% of levels achieved in the 1980s. Substantial savings in health and social care could also be generated through providing more of this accommodation and, additionally, it can free up currently inefficiently used housing stock.

Despite the obvious appeal of retirement living, Scotland has very few schemes compared to England.

The literature evidences (from a broad range of national and international sources) how higher levels of home building can improve affordability of housing; increase new household formation rates; improve housing quality; reduce housing market volatility; improve people's heath; improve educational attainment; and increase social mobility. As a binding constraint through reducing access to land, the planning system often limits home building, producing the opposite effects, as well as essentially imposing a development tax on urban businesses.

Real estate development plays a direct role in delivering considerable economic output and employment, as shown by a range of national and international studies. The construction sector alone produces around 6% of national GVA and every £1 spent in the construction of real estate generates another £1-£2 of spending in the wider economy. Real estate development also produces other economic benefits such as improving labour market mobility and flexibility, worker productivity and job satisfaction.

Appropriate development can improve place-making and reverse an area's long-term decline, as clearly evidenced by the regeneration of the Gorbals in Glasgow.

APPENDIX A – SUMMARY OF KEY UK LITERATURE RELATING HOUSING MARKET TO PLANNING[87]

Study	*Type*	*Coverage*	*Key outcome variables*	*Main findings*
Cheshire and Sheppard (1989), (1997)	Micro-hedonic price/demand model	2–3 cities; Simulation for wider system using proxies	House price Density Welfare level Value of green space and other amenities	Planning restraint has moderate effect on ave. price, but large effect on density; this makes for significant welfare losses despite provision of amenities; distribution[
Bramley (1993), (1998); Bramley and Watkins (1995)	Local level aggregate	120 LAs in selected regions, 1988 and 1992	Planning regulation composite measures New completions House price (density, type mix))	Formal planningg constraints more powerful than informal New build driven more by land available than price:(low supply elasticity) Weak implementation of strategic plans, but local plan allocations better Price impacts moderate Brownfield land imposes some penalty
Pryce (1999)	Local level aggregate	As Bramley and Watkins (1995) (same dataset)	New starts House price	Reworked including simultaneous equation treatment: 'backward-bending' supply possible
Bramley (2002); Bramley and Leishman (2005)	Sub-regional level aggregate panel	90 zones covering England over 10/20 years	New completions: House price: Gross migration: Vacancies	Allowed for spatial interactions; confirmed low supply elasticity and weak link from land (permissions) to output; reasonable price benefits from greater supply in medium term
CLG–Reading Afford-ability Model: ODPM (2005); Meen et al. (2008); Meen (2011)	Regional simulation based on regional time series models and some micro-simulation	9 regions of England over c.25 years	House price Earnings Affordability Migration: household formation (Tenure; vacancies)	L. t. adverse trend in affordability likely with given supply Affordability benefits of supply are very long term and gradual More housing needed in south to stabilise afford-ability More complex models with more flow terms suggests slightly more responsiveness
Leishman et al. (2008)	Sub-regional simulation based on regional time series and some micro-simulation	6 sub-regions in Scotland	House price Earnings Affordability Migration Household formation; (Tenure)	L. t. tability of affordability likely with given supply Affordability benefits of supply are long term and gradual Model made considerable use of spatial interaction terms
Hilber and Vermeulen (2010)	Local level aggregate panel	LA districts in England c.25 years	New completions House price level House price volatility Success rate of planningg applications (through IV treatment)	Quite large price level and volatility effects of regulation. Regulation has bigger impact than physical/ togographical constraints Claims instruments to represent planning restric-tiveness
Bramley (2011a), (2011b) ('Gloucester-shire' model)	Sub-regional simulation based on sub-regional panel models	102 'best fit' HMA areas in England, 1997–2007	New completions House price, rent Affordability Migration Household formation Housing need	Time required to build up supply Relatively greater affordability effects from supply Interdependence of adjacent sub-regions
Ball et al. (2010); Meen and Nygard (2011)	Local/ neigh-bourhood level, (MSOA)	Thames Gateway (part of London and adjacent regions)	New completions Supply elasticities	Supply more responsive to price changes than levels Supply more responsive on brownfield land Larger firms more responsive Historical legacies, environmental constraints and planningg policies all important

[87] Bramley (2013)

APPENDIX B – REFERENCES

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