

AN INVESTIGATION INTO LAND BANKING IN SCOTLAND

A report to the Scottish Land Commission

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An Investigation into Land Banking in Scotland

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1 Executive Summary

Not enough homes are being built in Scotland to meet its housing need and demand. Only around 15,000 homes a year were built in the aftermath of the Great Recession and, although reaching 20,000 in 2018, new supply remains short of an estimated need of 23,000 homes a year.¹ The Scottish Government does not have an official housing target, although it has set an ambitious target to deliver 50,000 affordable homes over the term of the parliament.² In the absence of an official housing target this report uses the 23,000 estimate of need suggested by the independent Black Commission on Health and Wellbeing.³ Other reports have concluded the level of ambition should be considerably higher.⁴

Affordability has worsened with house prices rising faster than earnings and many young people have been shut out of homeownership. Some blame 'land banking' for the lack of supply. They argue housebuilders are not building on the land for which they have planning permission and are not building it out as quickly as they could. Others point further back in the development process to landowners monopolising the supply of 'raw land' to housebuilders. Others still point to a failure of local authorities to allocate enough land in their local plans for housing development to meet genuine local need and demand. This report explores the issues and tries to unpick them with the benefit of Glenigan planning permission data, as well as Registers of Scotland landownership data, amongst other evidence.

Our analysis of Glenigan data shows that **the average permissioned land bank in Scotland was 3.2 years at the end of 2018**. This compares to an average 4.3 years in England in an earlier analysis. Correspondingly, **the average time from the point of detailed planning permission being granted to fully complete a development in Scotland is 2.7 years**. This length of time is relatively short compared to England (4.0 years). The difference between the national pipelines is almost wholly explained by the difference in the time it takes to progress a planning permission to a start on site: only 0.7 to 0.9 year in Scotland, half the time it takes in England.

¹ This is completions. In 2018 starts were higher at 22,198.

² The Scottish Government has committed a record £3.3 billion investment in affordable housing in the current parliament.

³ Commission on Housing and Wellbeing (2015) "The Scottish Government should adopt an indicative national target for new house building, initially for the period up to 2020. The figure of 23,000 new houses each year [...] would be an interim target until national estimates can be made from forthcoming local Housing Need and Demand Assessments."

⁴ A report for Crisis and the National Housing Federation (Bramley, 2018) suggests 26,000 homes a year to meet need and demand; whilst Firm Foundations, a Scottish Government housing discussion paper suggests Scotland should aim to deliver 35,000 a year (Scottish Government, 2007).

But Scotland appears to suffer similar issues to England of prolonged ‘build-out’ phases (a ‘drip-feeding’ of new build homes onto the market) on large building sites, due to market absorption constraints. Absorption constraints are a justification for higher land banks. More fundamentally, commercial housebuilders are set up in a way that preserves rather than reduces house prices and hence affordability. The prevalent (speculative) housebuilding model seems unlikely to deliver a step-change improvement in housing affordability.

Nonetheless, overall, the evidence suggests that commercial housebuilders and other builders in Scotland are only ‘land banking’ permissioned land in a way that is necessary to support their production process⁵. They are not doing so in a profiteering sense.

However, the more difficult question of whether commercial housebuilders and others are land banking ‘raw land’, i.e. pre-planning permission, is harder to answer. This report provides an exploratory analysis of pre-planning development pipelines and concludes more research is needed.

Further analysis of the Glenigan data shows that, as at the end of 2018, 63 per cent of outstanding planning permissions had been started (i.e. in the ‘build-out’ phase), 24 per cent were progressing to a start, and 14 per cent had stalled. The 63 per cent started compares favourably to England’s 52 per cent in an earlier analysis. Further, **the commercial housebuilders build out their planning permissions quicker than other housebuilders**: 29 per cent of commercial housebuilders’ planning permissions granted during 2016-18 had been completed by the end of 2018 but only 19 per cent of other housebuilders’ had been.

At the local level, inevitably the average land bank size will be bigger in some local authorities than it is in others. Consistent with the national analysis, **land banks are bigger in local authorities where average sites are bigger – i.e. where market absorption constraints are likely to be at play. Land banks are also bigger in local authorities where planned growth in housebuilding is higher.** For example, average land banks are biggest in Glasgow, East Renfrewshire, and Dundee, at 8.2, 8.0 and 5.3 years respectively, but if programmed future completions (planned growth) transpire across the piece the average land bank in these local authorities would fall to only 2.6, 4.1, and 2.2 years, respectively.

Turning to allocations in the local planning system, **local authorities collectively have a housing supply target of around 20,000 homes a year. This is short of the potential national housing need of at least 23,000 homes a year.** This disconnect

⁵ Glenigan define “commercial housebuilders” as companies specialising in the construction of new homes, usually PLCs. “Other housebuilders” covers a diverse group with varying motivations including housing associations and local authorities but also investment companies.

between 'national' and 'local' may simply mean that 23,000 is wrong or over-ambitious. This suggests there is a need for the forthcoming National Planning Framework 4 to set national and regional targets based on an analysis of housing need and demand.

The number of planning permissions being granted will reflect the 20,000. Crucially, we estimate the flow of new planning permissions in Scotland would need to rise from an average 24,000 per year during the last three years to 28,000 per year in order to build 23,000 homes per year. In sum, there is not enough permissioned land in the system. This does not appear the result of a low planning approval rates.

But increasing the number of planning permissions for housing, whilst necessary, is unlikely to be sufficient to increase new housing supply to the levels needed to substantially improve affordability, due to the prevalent (speculative) housebuilder model and market absorption constraints.

Considering localised land supply constraints, an exploratory case study of Moray finds that overall availability of 'raw land' is sufficient to deliver the 5,473 homes it needs over the development plan period. But, **'effective land supply' in Moray appears to be owned by a small number of players. The same is true of land more generally, but to a lesser extent. Ownership concentrations appear higher in local housing market areas where insufficient land is designated to meet assessed need and demand. However, this analysis only demonstrates a correlation between landownership concentration and constrained land supply, it does not demonstrate causality.** Further analysis, of other local authority areas in Scotland for example, would enable this to be established more definitely.

If the supply of raw land is being constrained it could be at least part of the reason why there are too few planning permissions in the system. The Scottish Land Commission (2019) concluded that large concentrations of raw landownership by landowners are limiting productive use of land and the supply of housing in some parts of Scotland.

2 Introduction and context

Fewer homes are being built in Scotland than there used to be. Builders, property firms and politicians say this is driving up prices⁶, making things hard for both renters and first-time buyers and leaving tens of thousands of people on council waiting lists. Average house prices in Scotland have risen from around £90,000 in the mid-2000s to nearly £150,000 today.⁷ Earnings have not kept pace and worsening affordability, amongst other things, has seen more and more young people struggling to get on the housing ladder. Homeownership amongst those aged 25-34 peaked in the mid-2000s at around 48 per cent and currently stands at 31 per cent.⁸ Homeownership overall has also fallen, but only from 57 per cent to 53 per cent.

It is obviously important to consider whether enough homes are being built in Scotland to establish whether there is a problem of supply. Indicatively, the independent Commission on Housing and Wellbeing recommended in 2015 that 23,000 new homes need to be built in Scotland annually.⁹

In comparison, new build completions have averaged around 17,000 homes annually in recent years (2015/16 to 2017/18), a shortfall on what's needed of 6,000 a year.¹⁰ Including conversions, the supply figure increases marginally but is more than offset by demolitions.¹¹ Scotland's National Indicator 38 suggests 'new supply' closer to the target but includes refurbishments, which are improvements rather than net additions to the housing stock).¹²

The Scottish Government's commitment to deliver 50,000 affordable homes will bring a welcome boost to supply in the current parliament. This report, however, is concerned principally with land banking and housing supply through commercial housebuilders.

⁶ Commentators also point to the impact of falling interest rates on investment returns but this research is focussed on land and the new build for sale market.

⁷ [UK house price index](#)

⁸ [Resolution Foundation](#) (2019) analysis of Labour Force Survey Data

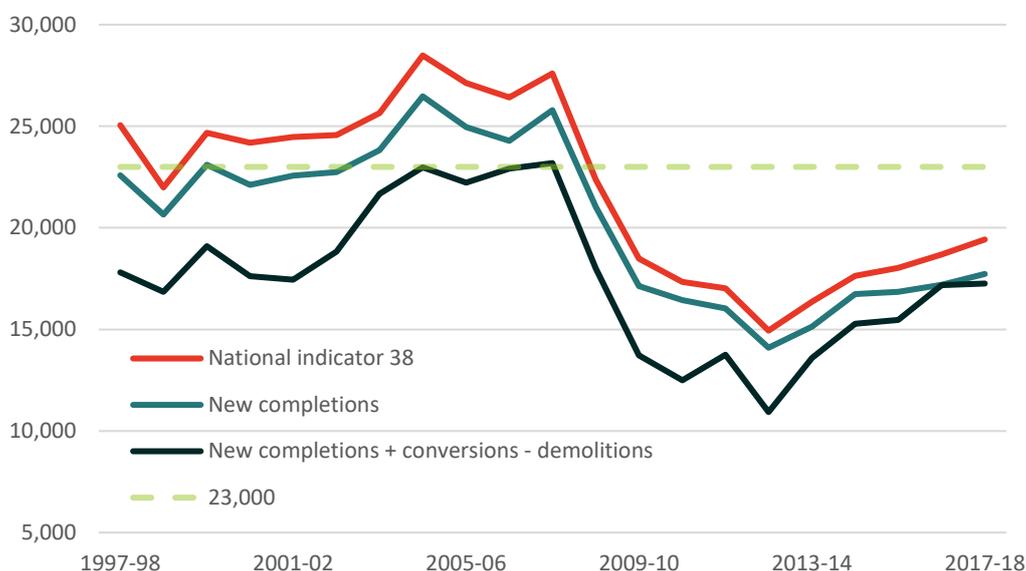
⁹ [Commission on Housing and Wellbeing](#) (2015)

¹⁰ Scottish Government [new build completions](#) statistics (accessed June 2019)

¹¹ Scottish Government [conversions and demolitions](#) statistics (accessed June 2019)

¹² The national indicator includes new build completions, conversions (non-housing to housing use) and some refurbishments including wholly or partly funded by the Affordable Housing Investment Programme.

Figure 2.1: Housing supply in Scotland



Source: ChamberlainWalker based on statistics published by the Scottish Government

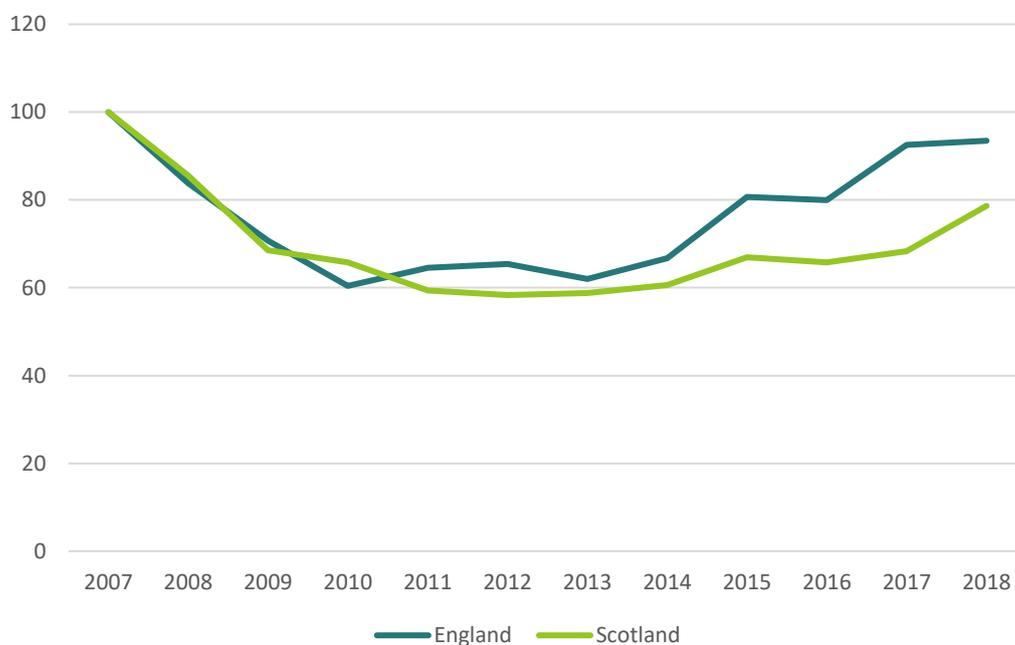
There was an uptick in new build completions in 2018 to c.20,000 (and new build starts reached 22,198), which if sustained would halve the shortfall. However, the recent dip in planning permissions raises doubts about such sustainability. On the other hand, anecdotally, local authority housing land audits indicate the potential for increased housing completions.

Further, new build completions in Scotland were historically much higher before the financial crash of 2008 – they averaged more than 23,000 per annum in the decade prior. The aftermath of the financial crash in 2008 saw housebuilding fall as low as 15,000 homes per annum in 2012, 2013 and 2014.¹³ At around 20,000 currently, completions in Scotland have not recovered to their pre-Financial Crash levels and they have not recovered to the same extent completions have in England (England 93 per cent, Scotland 79 per cent of the 2007 peak).¹⁴

¹³ Scottish Government [new build completions](#) statistics (accessed June 2019)

¹⁴ MHCLG [Live table 213](#) and Scottish Government [new build completions](#) (accessed June 2019)

Figure 2.2: Housing supply in Scotland compared to England



Source: ChamberlainWalker based on statistics published by the Scottish Government and MCHLG

A clear explanation for lacklustre house building continues to evade policy-makers, but many believe land banking is the culprit and it remains at the forefront of the debate. Land banking can refer to any sort of land. In a politically-charged discourse it is often applied in the context of housebuilders and others ‘banking’ land – specifically land with planning permission – for speculative gain. In other words, profiteering in a market of rising land and house prices. In particular, planning permissions in Scotland have been running well ahead of completions in recent years.¹⁵ Together with derelict buildings and other brownfield sites left idle, this has reinforced a perception of planning permissions deliberately not being built.

Press and public interest in land banking is strong with a growing consensus it is a bad thing. The issue has become increasingly politicised with calls for more to be done. The Land Reform Review Group advocated a new ‘use it or lose it’ power for use when planning consent is being reapplied for.¹⁶ The Scottish Government

¹⁵ Comparing planning approvals published by the Housebuilders Federation ([Housing Pipeline reports](#)) with [new build completions](#) published by the Scottish Government.

¹⁶ [Land Reform Review Group Report](#) (2014)

has also previously proposed consultation on giving local authorities the power to introduce a tax on land to “reduce land banking and increase the supply of homes.”¹⁷

An analysis of local plans suggests that only 20,000 homes per annum are likely to be delivered in the coming years (with an associated land requirement some 10-20 per cent above this level, allowing for some contingency for sites not coming forward as anticipated and changing circumstances).¹⁸ Set against the Commission figure of 23,000 this implies that the current system is not delivering enough homes to meet need and demand. This in turn could reflect a whole array of issues ranging from ‘difficult local politics’ to very real land supply constraints at the local level affecting specific local housing market areas, and not enough planning applications coming forward.

To try to unravel these issues, this report explores how far ‘land banking’ of land with planning permission is the reason for sub-par house building in Scotland. Analysing Glenigan planning permission data, it provides new evidence on the size of permitted land banks and the extent to which these can be considered commercially justifiable and/or a cause of under-supply of new homes in Scotland. This is also explored at the local level which shows a wide variation in average land bank sizes from one local authority to the next.

The report then goes on to look across the whole planning pipeline to consider whether enough planning permissions are being granted to sustain the desired levels of housing supply, i.e. whether the supply problem is ‘further back’ in the development pipeline, while bearing in mind the prevalent housebuilding model is not set up increase new housing supply to the levels needed to substantially improve affordability. As part of this, the report considers whether and to what extent localised land monopolies exist and whether these may be preventing enough ‘raw land’ from coming forward for planning permission for housing development. To do this, it sets out new evidence from an exploratory analysis of Registers of Scotland and housing land audit data in the local authority of Moray.

¹⁷ <http://www.parliament.scot/parliamentarybusiness/report.aspx?r=10532&mode=html> (2016)

¹⁸ *This is based on a review of strategic development plans, local development plans or local housing strategy of Scottish local authorities. Further information set out in annex 1.*

3 What is land banking?

Chapter in a nutshell

'Land banks' or 'land banking' in the political discourse usually refers to land with planning permission. The housebuilding industry has been accused of "sitting on land banks" and "making speculative gains from a rising market".

Many wonder why planning permissions are higher than completions – what is happening to the remaining permissions, why planning permissions aren't being built on and others not built out more quickly. In fact, housing permissions are necessarily higher than completions because, for example, some planning permissions don't make it to a start – they 'lapse'. This has little to do with 'land banking' of housebuilders.

There are necessary business reasons for housebuilders to hold land banks, to do with the scarcity of developable land and the time it takes both to secure the land with permission and then to build new homes on it. Permissioned land is owned by commercial housebuilders and others. The latter may have different motivations for the use of their land, sometimes unrelated to the production of new homes.

There are legitimate business reasons too for why commercial housebuilders do not build out planning permissions more quickly. A key reason is 'market absorption' which constrains how many homes can be built and released to the local housing market at any one time.

A broader definition of land banking includes so-called 'raw land' i.e. banking of land further back in the development pipeline prior to planning permission. The existence and extent of such land banking by housebuilders is a more difficult question to answer and further research is needed.

3.1 The land banking debate

'Land banking' means different things to different people. As the national housing shortage has risen in political prominence, the term 'land banking' has assumed a more pejorative slant. It is often taken to mean the speculative hoarding of land in a rising market, profiting from appreciating land values; separate from, (rather than integral to), the productive process of housebuilding. Inevitably the issue becomes more emotive in

a market where house prices are rising sharply and young people cannot get onto the housing ladder.

For housebuilders, a pipeline of land with planning permission is a fundamental requirement of the production of new homes. The process of securing developable land and the time taken for land to progress through the planning system is time-consuming and risky. So too is the process of building new homes on site once land becomes available for production.

Naturally, in any production process in the economy, the longer the 'conveyor belt', the more 'production in progress' there is relative to output. New housing is no exception to this. Fundamentally, the land banking debate is *how much land is it reasonable for housebuilders to hold to ensure a steady or growing output of new homes, given the planning system and other factors affecting the production process?*

Land banking in the political discourse usually refers to land with planning permission. A broader definition of land banking includes so-called 'raw land' i.e. banking of land further back in the development pipeline prior to planning permission. The existence and extent of such land banking by housebuilders and others has not been widely researched and is a more difficult question. This report is largely focussed on the narrower concept of land with planning permission but includes an exploratory analysis of the pre-planning development pipeline for one local authority area. Further research is needed.

Planning permissions in Scotland have been running well ahead of completions in recent years (figure 3.1).¹⁹ The last three years have been no exception:

¹⁹ *Comparing planning approvals published by the Housebuilders Federation ([Housing Pipeline reports](#)) with [new build completions](#) published by the Scottish Government.*

Figure 3.1: New build completions compared to planning permissions (rolling 12-month total)



Source: ChamberlainWalker based on statistics published by the Scottish Government and Housebuilders Federation

This has left many commentators scratching their heads about what is happening to the remaining permissions. The accusation of land-banking is often (though not exclusively) levelled in the context of such permissioned land, e.g. “It has planning permission, why isn’t it being built on?” or “Why isn’t it being built out more quickly?” We consider these questions in what follows.

3.2 What has happened to the remaining planning permissions?

Not all planning permissions make it to a construction start within the required three-year period. When this happens, the planning permission ‘lapses,’ i.e. the site no longer has planning permission and a fresh planning application must be made to develop the land. Further, even with construction underway, sites can ‘stall’ – which means building is put on hold or slowed. This is more likely to happen, for example, in times of economic or housing market distress. This is referred to as ‘leakage’. The presence of ‘lapse’ and ‘leakage’ mean that planning permissions are, by necessity, higher than new build completions. This can also reflect a ‘churn’ of planning permissions on the same site, for example, where a planning permission is re-applied for, or ‘recycled’, following a lapse.

In Scotland, the Land Reform Review Group²⁰ expressed concerns that a considerable amount of land zoned for housing development is currently in the hands of existing housebuilding developers and suggested – to address the possibility of medium and long term land banking – the introduction of a new ‘use it or lose it’ power for planning permissions reapplied for (i.e. following a lapse).

Finally, future growth in new housing supply – in new build completions – also require planning permissions to increase at least a couple of years beforehand – i.e. to allow time for the extra planning permissions to be built out. This can distort the land bank picture and make planning permissions appear even higher relative to current completions. The industry refers to this phenomenon as ‘lag’.

3.3 Why isn’t permissioned land being built on?

It is important to make a distinction between permissioned land that is owned/controlled by commercial housebuilders and permissioned land that is owned/controlled by others.²¹ Based on Glenigan data commissioned for this report, other housebuilders²² were estimated to own 49 per cent of the outstanding permissions/schemes at the end of 2018 (see chapter 5).

Most non-builders (which includes the public sector) may promote land with the intention that it will ultimately be developed by a commercial housebuilder, whilst others may have entirely different motivations. Social housebuilders (housing associations and councils) are likely to want to develop as quickly as possible, but others, such as investment companies and land promoters, are likely to be motivated by private (profit) rather than social objectives. In general terms:

Promoters of land for development seek to obtain planning permission – often outline planning permission – before selling it to a housebuilder. This may be done by landowners or professional land promoters, on behalf of the landowners. These are companies whose business is to buy land, secure planning permission, and provide housebuilders with a steady supply of developable sites.

Delays from the granting of planning permission to the start of construction may reflect a number of factors such as the landowner’s requirement to market the land before it is sold for development.

²⁰ [Land Reform Review Group Report \(2014\)](#)

²¹ *The latter could include the public sector, charities, private businesses including investment companies, land promoters or individuals.*

²² *Including local authorities, housing associations, and investment companies.*

The value of the land with permission may depend on factors that need to be resolved before it can be marketed and sold to a housebuilder (such as the provision of local infrastructure by a third party, resolution of planning conditions, and so on).

Some landowners may be seeking planning permission on a site, not because they intend for it to be developed, but because they want to establish the value of the land, for business or personal reasons, for example, to create a 'book value' sufficient to obtain borrowing collateral.

For builders and non-builders alike, there is, usually, a period of time that elapses before the start of construction on site can begin following planning approval. Construction activity cannot be expected to follow a permission immediately, rather it is subject to the following, inter alia:

- expiry of Judicial Review period;
- planning permission comes with stipulated Section 75 requirements and conditions. In England, for example, there has been growing recognition of the rising number of pre-commencement conditions being attached (sometimes inappropriately) to planning permissions;
- some land might be held under option with time needed to negotiate and exercise the option following the granting of planning permission;
- time taken to assemble other (non-land) inputs to the construction process: including, labour, materials and finance;
- market conditions. For example, during an economic downturn, changed market conditions can adversely affect sales rates and revenues, requiring development timescales to be reviewed (during this time, housebuilders might seek to renegotiate Section 75 agreements and/or revise their proposals, in some cases leading to a new planning application); and
- other factors. Sites can also stall because of other 'external' factors such as provision of local infrastructure needed to unlock development.

There are many reasons why planning permissions are not implemented immediately. Crucially, commercial housebuilders are return-on-capital businesses whereby as soon as land is purchased the aim is to secure home sales to return that investment. Delays to this capital return are damaging to the business, and hold up the release of funding for other land investment.

3.4 Why isn't permissioned land being built out more quickly?

Housebuilders are often accused of 'land banking' because it is physically and technically possible for them to build out more quickly once construction has begun. This

may be true, but the speed of production of new homes must also account for the rate at which new homes can be sold, referred to as the “market absorption rate”.

Although there is a national shortage of homes, with demand outstripping supply in many areas, the number of buyers in a local market at any time is limited. Housing markets are highly localised, which means the rate of new sales also depends on the number of potential buyers in the vicinity of the site. To increase sales rates, housebuilders would need to sell into the market at a lower price than envisaged when purchasing the site. This would simply serve to reduce profitability (possibly to loss) and so damaging investment. The residual land value that housebuilders use means that the initial land outlay is made before the production starts and is calculated on the basis of estimating sales values and production costs. Crucially, housebuilders are “price-takers”, with house prices decided largely by the second-hand market for homes which accounts for around 90 per cent of transactions in the housing market in the UK.

Naturally, market absorption is more problematic for larger sites than it is for smaller ones. There is a wealth of literature and evidence showing that larger sites have much lower delivery rates than smaller ones (see next chapter). This is, in turn, a problem at the national level given the reliance on large sites for Scotland’s new housing delivery – according to the Glenigan data commissioned for this report, around 40% of outstanding detailed planning permissions at the end of 2018 were on ‘large’ sites of 250 homes or more.

4 A short review of the evidence

Chapter in a nutshell

This short literature review covers some of the more well-known reports on the issue of land banking.²³ It presents what the reports have said about the size of permissioned land supply (land banks), the length of the development pipeline, why planning permissions exceed completions, post planning permission delays to a start on site, and slow site build-out rates. It also reviews what has been said about patterns of landownership of ‘raw land’ that needs to come forward for planning permission for future housing development.

Housebuilders seek to acquire “land banks” of permissioned land in order to protect their ability to stay in business. There are two broad phases that occur in the housebuilding process following planning permission – ‘permission to start on site’ and ‘site buildout’. These phases combined are likely to take at least two years thus requiring a land bank, also, of at least two years. Accordingly, the Callcutt Review (England, 2006) presented Royal Town Planning Institute data that showed housebuilders had an average 2.8 years of land supply with implementable planning permission.²⁴ Home Builders Federation data, also for Callcutt (2006), showed a similar average of 2.5 years’ land supply with implementable planning permission. However, over a decade later, ChamberlainWalker Economics’ report for Barratt Developments (2017) estimated a far higher figure of 4.3 years’ land supply with detailed planning permission in England (‘detailed’ being broadly ‘implementable’), which suggests underlying problems have got much worse since the mid-2000s.

Turning to the ‘development pipeline’ – namely the average time taken for a scheme to progress to full completion – the Local Government Association (England, 2013) found it took 27 months to build out an average site from planning permission to full site completion. For very large sites of 250+ units this was 47 months. ChamberlainWalker Economics (2017), in contrast, estimated it took 48 months to build out the average site.

As discussed in the previous chapter, a land bank needs to account for planning permissions that don’t make it to a start within three years (lapse) as well as future growth in building (lag) and this is also why the flow of planning permissions must be higher than the flow of new build completions. Accordingly, ChamberlainWalker Economics’ report constructed a basic model which demonstrated a permissioned land bank of 5.7 years is needed when it takes 4 years to build out the average site from the

²³ Refer to the bibliography at the end of this report for full references.

²⁴ That is, they had enough land with implementable planning consent for 2.8 years’ worth of completions at then current levels.

point of planning permission being granted, assuming a 20% lapse rate and 5% p.a. completions growth. Estimates of lapse rates vary. Somewhat dated DCLG analysis suggested that 10-20% of permissions do not materialise into a start on site. At the extreme, Moliar (2012 & 2014) found a lapse rate in London of around 50% in the years after the Great Recession. The growth of housing completions (lag) will clearly be influenced by the economic and housing market cycle.

The evidence on why post-planning permission delays occur is varied. Regarding the period from planning permission to a start on site, the Home Builders Federation (2014) noted that securing *outline* planning permission does not necessarily mean that construction can commence immediately because many such sites are under option (i.e. not yet acquired / available to build on). ChamberlainWalker Economics (2017) added that even *detailed* planning permissions are not necessarily implementable – many are being progressed but require ‘discharges of conditions’. It pointed to HBF’s survey (2014) of its larger members’ land banks that found 5% of their detailed planning permissions were awaiting the discharge of planning conditions to be able to start.

All in all, the Local Government Association (England, 2013) found that only 52% of all planning permissions *by units* were started (under construction) and 48% *by units* were not started, and that these proportions had been fairly stable since 2008. ChamberlainWalker Economics (2017) analysis also showed that only 52% of all detailed planning permissioned *units* were started, further, that ‘non-builders’, including councils and housing associations, as well as land promoters, were less likely to have started construction of their detailed planning permissions than the commercial housebuilders.

There is arguably stronger and more consistent evidence on the ‘site buildout’ phase. The Home Builders Federation (2014) asserted that development time will be influenced not just by the time it takes to physically build the units, but by the capacity of the local housing market to absorb the flow of new homes for sale (‘market absorption’). This is more problematic for large sites. Nathaniel Lichfield & partners (2016) also found that stronger local markets have higher annual delivery rates (ergo better market absorption). The UK Collaborative Centre for Housing Evidence (2019) noted substantial recent evidence on the speed of delivery of new private housing and present evidence to suggest that sales rates and site size are two key factors in determining build-out rates.

The Local Government Association (England, 2013) found an average build-out time from start to completion of 15 months, rising to 32 months for large sites. The Letwin Review (England, 2018) found a median build-out period on very large sites of 1,500 or more of 15.5 years. Nathaniel Lichfield & Partners (2016) found the bigger the site the lower the buildout rate on average. In their sample of sites, the average annual build-out (delivery) rate for sites between 0-99 homes was just under 40 per cent (of the site’s permissioned homes). For sites between 100-499 homes just over 20 per cent, 500-999 homes 10 per cent. Build-out rates appear to plateau at just below this for sites of 1,000+

homes. Again, the Letwin Review (England, 2018) found annual build-out of just 6.5 per cent for very large sites (1,500+).

The Callcutt Review (England, 2006) observed: “It is almost an article of faith, universally held by housebuilders, that there is a limit of 35-50 homes which can be sold from one outlet in a single year; to achieve more rapid build-out requires prices to be reduced. Building out at a faster rate does not yield sufficiently larger early returns to offset the cost of discounts plus other marketing and management costs.”

The UK Collaborative Centre for Housing Evidence (2019) also noted that whilst there is conflicting evidence on whether greenfield or brownfield sites are built out more quickly; sites with more affordable housing tend to be developed faster. This concurs with the Letwin Review (England, 2018) which concluded homogenous housing products were a factor behind slow build-out rates on large sites especially, that a diversity of product (including a mix with affordable housing) and design would promote more rapid market absorption and thus quicker build-out rates. It suggested increasing variety and differentiation of products including new planning rules – and processes – for sites above 1,500 in areas of high demand to diversify the offer.

There is a potential issue of whether sufficient planning permissions are coming through the system in Scotland and whether sufficient ‘raw land’ for planning permission for housing development is coming forwards. Particularly, this will influence commercial housebuilders’ need to land bank in order to manage the development risk across the whole planning pipeline. The Scottish Land Commission (2019), drawing on new evidence, concluded that large concentrations of raw landownership by landowners are limiting productive use of land and the supply of housing in some parts of Scotland and that land monopoly existed in many areas. In areas of concentrated raw landownership, landowners have the power to control this environment, deciding whether and on what terms to make land available. The report called for a public interest test for raw land sales, amongst other market interventions, to increase land supply.

The Letwin Review (England, 2018) went even further down the road of land market intervention, by recommending English local authorities be given clearer statutory powers to purchase the land designated for some large sites (+1,500 plot) at a price restricted to 10x existing use value to ensure commercial viability, reflecting the value once they have planning permission and a masterplan to meet ‘diversity requirements’. These sites would be developed through new structures to ensure housing diversity and thus pace of build-out delivery, including local development corporations with masterplan-specification powers.

5 Land bank and planning pipeline estimates for Scotland

Chapter in a nutshell

Analysis of Glenigan planning permission data shows that Scotland's permissioned land bank was 3.2 years at the end of 2018. This compares to an average 4.3 years in England uncovered in an earlier, separate, analysis. Correspondingly, the average time from the point of detailed planning permission being granted to full site completion is 2.7 years in Scotland. This length of time is relatively lean compared to England (4.0 years).

The difference between the national pipelines is almost wholly explained by the difference in the time it takes to progress a planning permission to start on site: only 0.7 to 0.9 year in Scotland in contrast to 1.75 years in England, which is double. Nonetheless, Scotland appears to suffer similar issues of prolonged 'build-out' phases (a 'drip-feeding' of new build homes onto the market) especially on large building sites. This is probably the result of local market absorption constraints. Fundamentally, commercial housebuilders are set up in a way that preserves rather than reduces market prices and hence affordability.

The Letwin Review (England, 2018) offers a partial solution to the absorption rate constraint by suggesting greater product (including tenure) differentiation which could "accelerate the overall buildout rate".

Analysis of the land bank shows that 63 per cent of outstanding planning permissions at the end of 2018 had been started (i.e. are in the 'build-out' phase), 24 per cent were progressing to a start, and 14 per cent have stalled. The 63 per cent that have been started compares favourably to England.

Turning to allocations in the local planning systems, local authorities collectively have a housing supply target of 20,000 homes a year. This is short of the supposed national housing need and demand of 23,000.

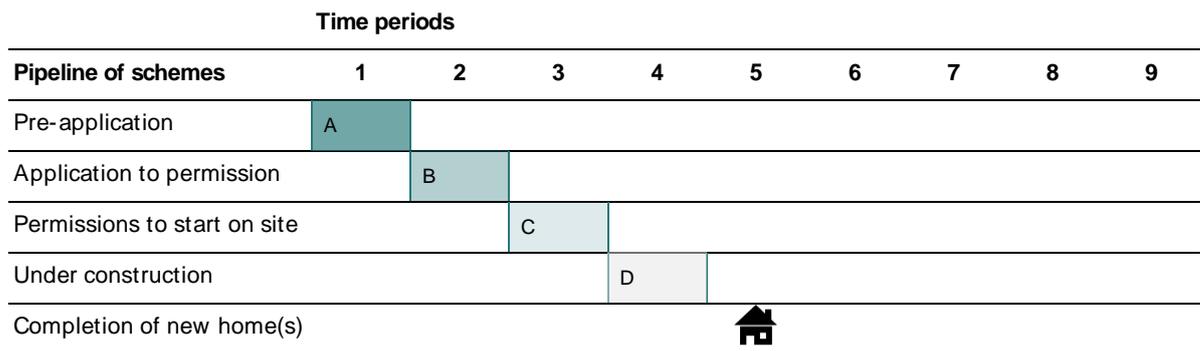
The number of planning permissions coming through the system will reflect the 20,000. The current stock and flow of planning permissions in Scotland is probably insufficient to build 23,000 homes a year, for which we estimate the *flow* of new planning permissions would need to rise from an average 24,000 p.a. during the last three years to 28,000 p.a. It is observed that new planning permissions must be higher than desired completions, including because of 'lapse' (planning permissions that don't make it to a start).

In sum, not enough planning permissions are coming forward to deliver 23,000 homes per year. This does not appear the result of a low planning approval rates.

5.1 Development pipelines

The existence of land banks can be explained in terms of the length of “development pipeline”, i.e. the time taken from inception of a development to the completion of homes on it. A development pipeline is a production process, a bit like the production line in a factory, along which inputs are turned into outputs through several intermediate stages. A simple development pipeline – one with four distinct development phases – is depicted below (figure 5.1). The phases are: pre-planning application, planning application to planning permission, planning permission to start, and under construction:

Figure 5.1: Illustrative development pipeline



Source: ChamberlainWalker analysis

If, in the illustrative example above, each development phase lasts a year then the development pipeline is four years long – in other words it takes four years from inception to completion. A key question is how long each development phase *should* take and thus how long the whole pipeline *should* be. This is a complicated question. For example, with the ‘under construction’ phase, it is not just a matter of how long it should take to put in all the enabling infrastructure and build the houses (usually 6 to 12 months) but other complexities such as, ultimately, the ability of the local market to absorb the supply of new homes without adversely impacting on local house prices.

5.2 Land banks

A land bank is needed to support each development pipeline. In order to maintain housing completions at a constant rate in perpetuity across four-phase pipelines, as outlined above, the builder must have four new schemes (pipelines) underway – one for each phase and each in a different phase. This is depicted in the example below (figure 5.2) with four outstanding planning permissions for every home completion. This is the land bank. The land bank in year five is circled in red:

Figure 5.2: Land bank associated with illustrative development pipeline

	Time periods								
	1	2	3	4	5	6	7	8	9
Scheme 1	A	B	C	D					
Scheme 2		A	B	C	D				
Scheme 3			A	B	C	D			
Scheme 4				A	B	C	D		
Scheme 5					A	B	C	D	

Units	Phase	Completion	
1	D	Under construction	Year 6
1	C	Permission to start on site	Year 7
1	B	Application to permission	Year 8
1	A	Pre-application	Year 9

 = 1 Completed
 = 1 Pipeline

Land bank total 4

Source: ChamberlainWalker analysis

Further, if there are four phases and each phase lasts a year, then the land bank must be four years, which in this example matches the length of the development pipeline – again, the time taken from inception of a development to the completion of homes on it. Land banks are often expressed in terms of years over which the current level completions can be maintained, i.e. x years' worth of current completions.

However, the development process is inherently risky. So further adjustments to the land bank are needed to account for a contingency allowance for permissions that stall or which fail to achieve a start, as well as any planned growth in the rate of completions – so-called 'lag, lapse and leakage':

- 'lag' – the inflow of permissions must grow *in advance* of completions due to the time it takes to build out the homes;

- 'lapse' – some permissions in the land bank will not make it through to a start; and
- 'leakage' – once building is underway, permissions may stall ('leakage').

For example, if there is a lapse rate of 20 per cent, then the land bank must be 25 per cent higher than the development pipeline. In other words, an average 4-year development pipeline would require an average land bank of five years to support it.²⁵

Whether the size of builders' land banks can be justified as commercially necessary can be linked to all four factors – the development pipeline length and the amount of lag, leakage and lapse – and whether what is quantified for each can be considered reasonable.

The analysis in this report focusses on the land bank of planning permissions only, depicted by phases C and D in figures 5.1 and 5.2.

5.3 Current land bank and pipeline estimates for Scotland

What follows is an analysis of detailed planning permission data for Scotland supplied by Glenigan. The data cover the whole of Scotland down to local authority level for the period 2016-18. It includes new-build projects within the residential sector that have either had detailed planning approval in the last three years, or that are currently under construction regardless of the date of approval. Glenigan track projects up to the point of planning permission and beyond for developments of 5+ homes – we estimate Glenigan capture around 95 per cent of new build residential completions in Scotland as reported by the Scottish Government.^{26 27}

According to the Glenigan data, a total of 72,304 new detailed planning permissions were granted between 2016-18.²⁸ Of these, around 17,427 (24 per cent) had been completed by the end of 2018. Naturally, newer permissions are less likely to have been completed than older ones – 65 per cent of those granted in 2016 had been completed versus only three per cent of those granted in 2018 – as depicted by figure 5.3:

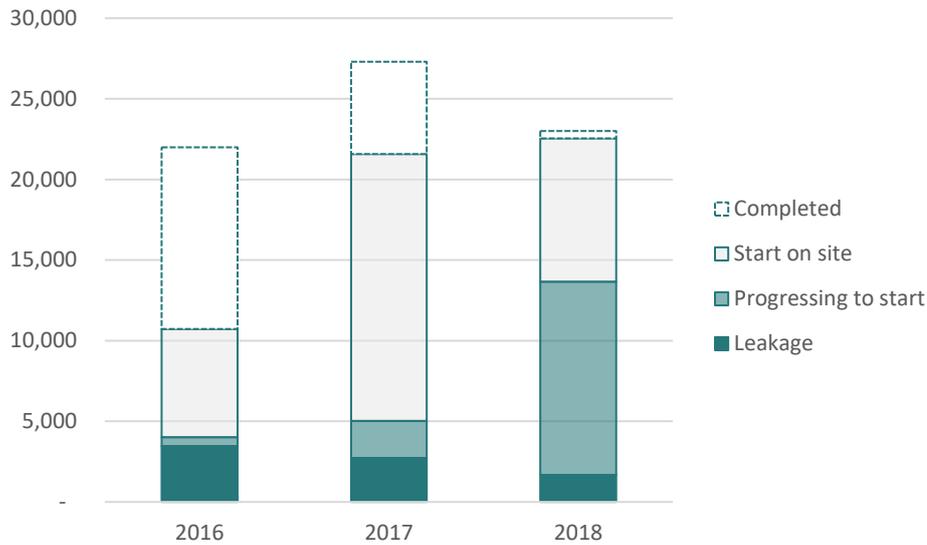
²⁵ The one year difference is 20 per cent of five years and 25 per cent of four years.

²⁶ Based on Glenigan permissions completed compared to Scottish Government completions and taking account of the % of completions which are on smaller sites of less than five homes (not tracked by Glenigan beyond planning approval).

²⁷ The Glenigan data presented in this and subsequent chapters differs slightly from figures presented in Chapter 1. The latter (published by the House Builders Federation) are higher because, for example, they include home improver and self-build units, which the Glenigan data do not.

²⁸ Includes outline planning permissions with reserved matters granted.

Figure 5.3: Current status of detailed planning permissions, by date of approval



Source: ChamberlainWalker analysis based on Glenigan data

Detailed planning permissions granted but not yet completed remain ‘outstanding’ or ‘in play’ until they expire. These make up the land bank of detailed planning permissions, henceforth ‘land bank’. Figure 5.4 is a snapshot of Scotland’s ‘land bank’ at the end of 2018. This comprises 63,013 outstanding detailed planning permissions in all, including 54,877 detailed planning permissions granted in the last three years (2016-18) and 8,136 granted pre-2016 but taking a very long time to get built. The pre-2016s remain in play (have not lapsed) because they started on site within the statutory time limit of three years.²⁹

A ‘land bank’ is usually defined in terms of latest completions. There were around 20,000 completions in 2018 which when compared to the bank of outstanding detailed planning permissions of 63,013 implies **Scotland’s land bank is 3.2 years**.³⁰

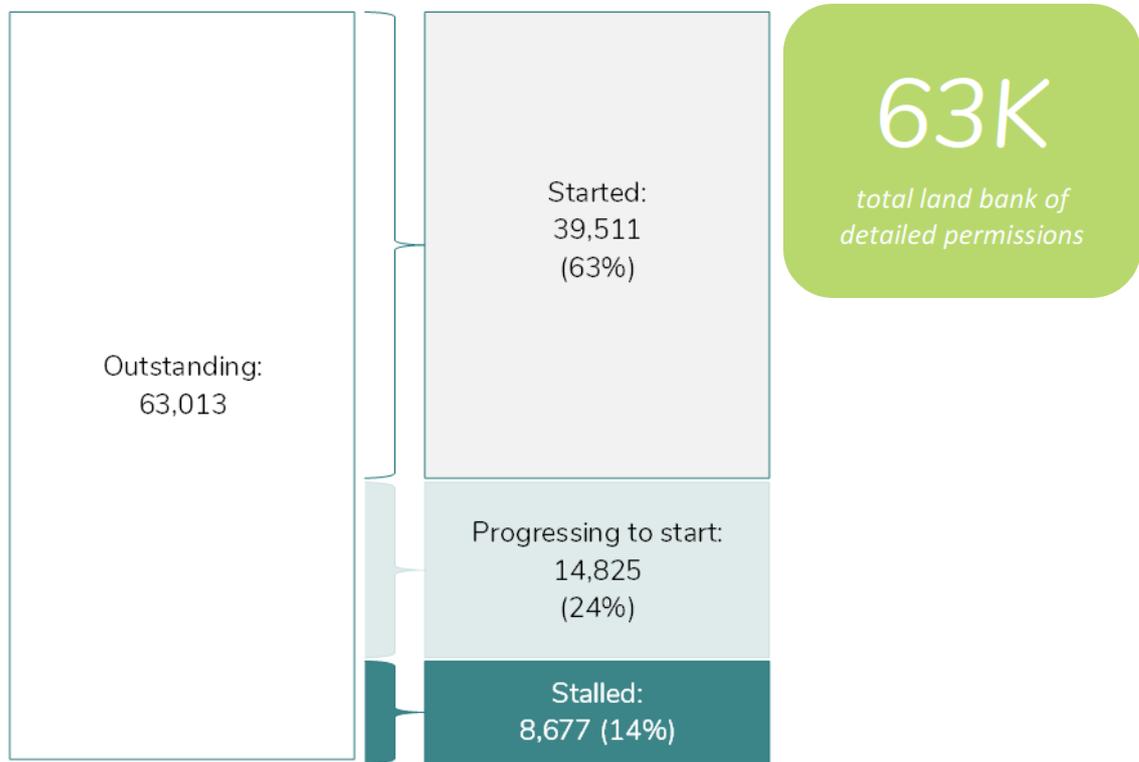
Of the outstanding detailed planning permissions in the land bank at the end of 2018, 39,511 (63 per cent) had been started, 14,825 (24 per cent) were progressing to start and 8,677 (14 per cent) were stalled. The 63 per cent started is higher than the 52 per

²⁹ Planning approvals permitted for 3+ years are assumed to be small in number compared to standard 3-year permissions

³⁰ $63,013 / 20,000 = 3.2$.

cent ChamberlainWalker Economics reported for England's land bank at the end of 2016 in a separate report.³¹

Figure 5.4: Scottish Planning permissions in play (end of 2018)

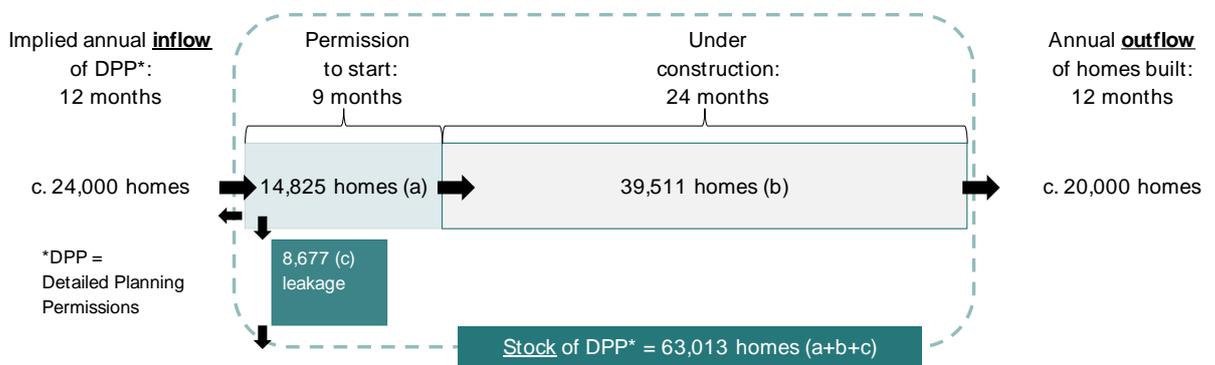


Source: ChamberlainWalker analysis based on Glenigan data

It is possible to reconfigure the picture above to infer the periods of time required for each post-planning development phase of the development pipeline outlined earlier, namely 'progressing to start' and 'under construction':

³¹ [The Role of Land Pipelines in the UK Housebuilding Process](#) (2017), ChamberlainWalker Economics, Barratt Developments PLC

Figure 5.5: The inflow, stock and outflow of detailed planning permissions



Source: ChamberlainWalker analysis based on Glenigan data

This reconfiguration is possible by assuming annual completions of 20,000 – the latest figure for Scotland (2018). The pipeline length implied by this is 33 months (2.7 years) with:

- 9 months to progress a detailed planning permission to a start on site
- 24 months under construction

However, some uncertainty surrounds this estimate – namely whether the 20,000 homes completed in 2018 can be sustained. Illustratively, if annual completions were 17,000, the average of the previous three years, the pipeline would be longer i.e. ‘stretched out’ thinner. Completions of 17,000 would imply a post-planning development pipeline of 38 months (3.2 years) with:

- 10 months to progress a detailed planning permission to a start on site
- 28 months under construction

This can be used to form an upper, or cautious, estimate for the post-planning permission pipeline.

5.4 Comparisons with England

Scotland’s average land bank of 3.2 years at the end of 2018 compares favourably to England where it was estimated at 4.3 years at the end of 2016.³² **This suggests that,**

³² *Ibid.*

overall, the commercial housebuilders and other builders operating in Scotland are not banking permissioned land in a profiteering sense, but rather building it out relatively quickly compared to England.

Scotland’s relatively lean land bank can be explained by the shorter post-planning development pipeline: the estimated average of 33 to 38 months (2.7 to 3.2 years) taken from detailed planning permission being granted to site completion compares well to 48 months (4 years) for England. Notably, getting from planning permission to start is much quicker in Scotland (0.7-0.9 years vs 1.75 years). The estimates for Scotland also align closely to earlier England studies (Callcutt, 2006 and LGA, 2012-13). However, Scotland does have a higher planning permission leakage (stalled sites), of 0.4-0.5 years, compared to 0.3 in England:

Table 5.1: Comparison of evidence on length of development pipeline (average time taken in years)

	Scotland	England				
<i>Source:</i>	CWE for Scottish Land Com.	CWE for Barratt	Callcutt		Local Government Association (LGA)	
<i>Date:</i>	2019	2017	2006		2012-13	
<i>Size:</i>	All	All	All	150+	All	100+
Permission to start on site	0.7-0.9	1.75	1.0	0.9	1.0	1.0
Under construction	2.0-2.3	2.25	1.5	2.3	1.3	2.2
Total pipeline	2.7-3.2	4.0	2.5	3.2	2.3	3.2
Leakage	0.4-0.5	0.3				
Land bank	3.2-3.7	4.3				

Source: ChamberlainWalker analysis based on Glenigan data and other sources as noted

There are factors that can explain legitimate variations in the size of land banks between the nations. These include:

- differential growth rates (of completions) between Scotland and England – a higher completions growth rate requires more planning permissions relative to current completions. England’s longer pipeline is likely in part the result of stronger growth in housebuilding, as has also been seen historically since the Great Recession. The impact of planned growth rates on land bank size is demonstrated even more clearly at the local authority level – see chapter 7;

- composition & nature of sites: site size, brownfield etc. The difference between Scotland's national land bank and England's does not appear attributable to site size or builder type (see table 5.2).

Table 5.2: Composition of land banks

	Scotland	England
Large sites	40%	35%
Commercial housebuilder	50%	52%

Source: ChamberlainWalker analysis based on Glenigan data

However, Scotland may have a lower reliance on brownfield sites than England – where over half of homes have been built on brownfield land in recent years.³³

- planning or market conditions. Again, the significant difference between England and Scotland is the average length of pipeline phase from permission to start on site – considerably longer in England where explanations include a rising number of pre-commencement conditions being attached (sometimes inappropriately) to planning permissions;
- Another possibility is different data sources. The England study was based on data supplied by Barbour ABI rather than Glenigan and captures an earlier time period.

5.5 Planning permissions in the planning system

If there is not a problem of land banking of planning permissions, as the above analysis suggests, then the implication is that too few planning permissions are coming through to support desired housing supply.

As said previously, the independent Commission on Housing and Wellbeing recommended in 2015 that 23,000 new homes need to be built in Scotland annually. While this is not an official target, a strong case can be made that Scotland needs to increase housing supply to at least 23,000 annually. This is around 15 per cent higher than the c. 20,000 homes delivered in 2018 and 35 per cent higher than the three-year average to 2017/18. **If 23,000 is agreed as a reasonable ambition, then a significant**

³³ <https://www.gov.uk/government/statistics/land-use-change-statistics-2017-to-2018>

issue is that, at present, there are not enough planning permissions in the system to meet that target.

Local authorities in Scotland are required to identify additional land as contingency for sites not coming forward as anticipated and changing circumstances. This means housing land requirements of up to 20 per cent above the housing targets. Increasing housing delivery from 20,000 to 23,000 may require an increase in the total housing land requirement to near 28,000.

This disconnect between 'national' and 'local' may simply mean that 23,000 is wrong or over-ambitious. But it may also reflect that the current system is not suited to increasing supply to meet need. This could be down a number of factors including the need for commercial builders to sell at absorption rates explained above, or insufficient 'raw land' coming forward for planning permission, at least in some local authorities. This in turn could be down to a multitude of reasons including infrastructure constraints, or because landowners are demanding too high a price for their land (or simply because they do not wish to see development in their local area). A consequence of a lack of infrastructure or high 'raw land' prices, for instance, would be potential developments not being sufficiently attractive to – or viable for – commercial housebuilders, and so fewer coming forward for planning permission.

At the very least the gap between national housing need and local housing plans suggests there is a need for the forthcoming National Planning Framework 4 to set a suitably ambitious national target that relates to regional and local housing targets.

5.6 Implications for national housing supply

The stock of planning permissions in play currently equates to 3.2 years' worth of the current 20,000 completions a year, but would be only 2.7 years of the required 23,000 completions a year.³⁴ This is probably too low so an increased inflow of permissions would therefore be necessary to build 23,000 homes a year. In other words, there is not enough permissioned land in the system. This does not appear the result of a low planning approval rates (see table 5.3).

³⁴ $63,013 / 23,000 = 2.7$

Table 5.3: Planning approval rates (all planning applications)

2014/15	2015/16	2016/17	2017/18	2018/19
93.9%	93.8%	94.2%	93.7%	93.7%

Source: ChamberlainWalker analysis based on Glenigan data

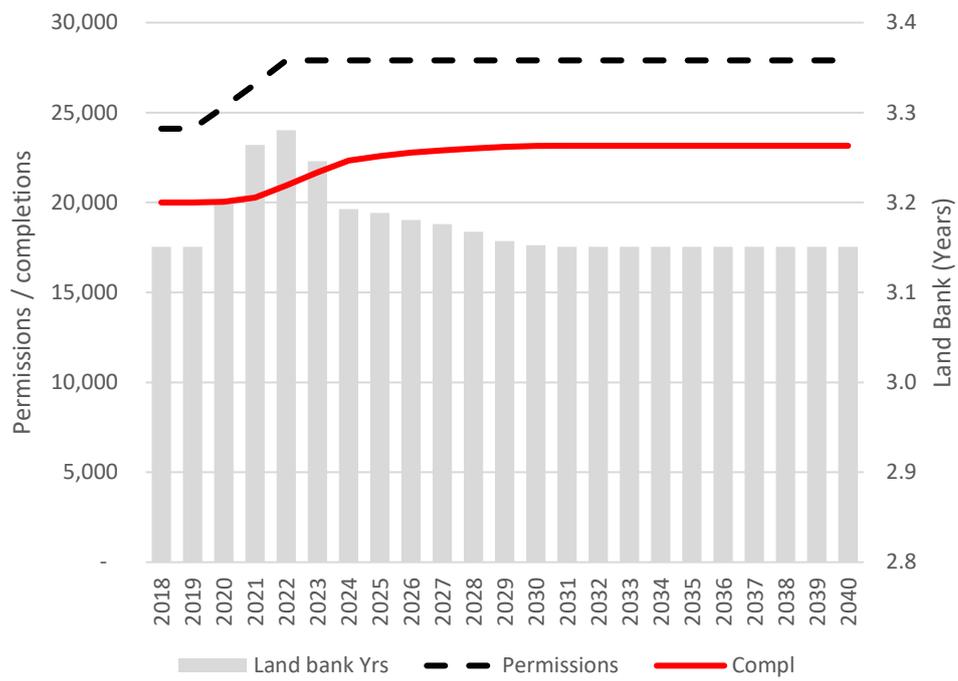
We estimate detailed permissions would need to increase from around 24,000 per year currently to around 28,000 per year to reach and sustain required annual completions of 23,000 (from 20,000 currently).³⁵ There are currently too few planning permissions in the system to build 23,000 homes each year because insufficient planning applications are coming forward under the current system to meet housing need and demand. This suggests the need for local authorities to work with housebuilders, land owners and others to plan for more houses and to address local supply constraints. Ultimately a higher rate of permissions can only be sustained with a higher rate of applications, which is down to the housebuilders.

To see how such a transition would occur, the following modelled scenario depicted in figure 5.6 has annual planning permissions rise from 24,000 in 2019 to 28,000 in 2022 order to reach and sustain annual completions of 23,000 by 2028. It illustrates how ‘lag’ affects the dynamic between planning-permissions growth and completions growth: the confluence of these is the permissioned land bank i.e. grey bars – which show the temporary ‘blip’ in the land bank.³⁶

³⁵ Latest completions are 20,000 (2018) which on annual planning permissions of 24,000 (Glenigan) gives an implied leakage of 17 per cent. To get to completions of 23,000 with 17 per cent leakage requires annual planning permissions at 28,000. This is consistent with the contingency allowance Councils are required to make to deliver their housing targets i.e. housing land requirements 10-20 per cent above housing targets.

³⁶ A lag of 2.7 years is based on the historical Glenigan data – the length of time from planning permissions being granted to site completion.

Figure 5.6: Modelled inflow, stock and outflow of detailed planning permissions



Source: ChamberlainWalker analysis based on Glenigan data

6 Land bank and planning pipeline variations by site size and sector

Chapter in a nutshell

40% of all detailed planning permissions outstanding in Scotland are on large sites (defined as sites of 250+ homes).

There are similarities between large and small sites in terms of the length of the pipeline phase 'progressing to start', as well as the leakage associated with stalled sites. But the implied build-out phase is considerably longer for large sites and this probably reflects market absorption constraints, a significant issue identified in England also.

Only 12% of large-site planning permissions granted in the last three years have been completed. In contrast, 30 per cent of small-site planning permissions have, more than double.

51% of the 72,304 detailed planning permissions granted in the last three years can be attributed to commercial housebuilders defined here as companies specialising in the construction of new homes (largely PLCs). Other housebuilders are a diverse group with varying motivations, including not-for-profit entities such as local authorities and housing associations, as well as investment companies.

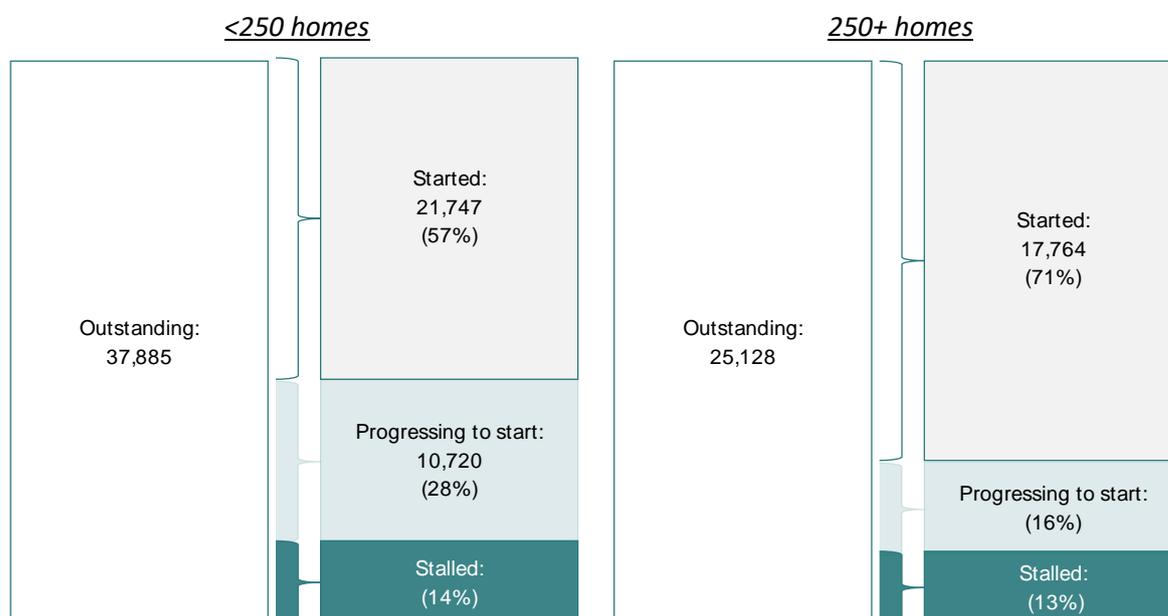
Commercial housebuilders deliver completions on their planning permissions quicker than other housebuilders: 29 per cent of commercial housebuilders' planning permissions granted during 2016-18 had been completed by the end of 2018 but only 19 per cent of other housebuilders' planning permissions had been. But despite this, commercial housebuilders take longer to build out their sites. Once again, this is likely due to market absorption constraints that impact mostly on market sale homes (as opposed to, say, social housing).

Further analysis would be helpful to examine the differences between commercial and other housebuilders, with the latter segmented to reflect the diversity of motivations including public or social versus private.

6.1 Development size

The Glenigan data show that 40 per cent of all detailed planning permissions outstanding are on large sites (defined as sites of 250+ homes). As at the end of 2018, only 12 per cent of permissions granted on large sites during the last three years had been completed, whereas 30 per cent small-site permissions had been completed. Looking at the respective large site and small site land banks, detailed permissions outstanding on large sites are more likely to have been started (71 per cent likely) compared to those on small sites (57 per cent likely). The incidence of stalled sites is about the same (13 or 14 per cent), as shown in figure 6.1:

Figure 6.1: All detailed permissions outstanding



Source: ChamberlainWalker analysis based on Glenigan data

The data suggest similarities between large and small sites in terms of pipeline 'progressing to start' and leakage associated with stalled sites. However, the implied subsequent build-out phase of the development pipeline is considerably longer for large sites as compared to small sites. This is likely to reflect the practical and 'market absorption' constraints influencing the phasing of completions on larger schemes and supply of new housing into the local market. Market absorption is fully discussed in chapter 2 but, to recap, it broadly reflects the ability of highly localised housing markets to absorb new housing supply without local house prices falling. This is more problematic for large sites due to the scale of development in proportion to local demand. This was

a subject of Sir Oliver Letwin’s Independent review of build times (England, 2018) which urged policy measures to diversify the product offer on very large sites to speed up build-out rates.

Longer build times on large sites possibly also reflects a higher incidence of flats – blocks of units take longer to complete than single units. Lastly, large and small sites have a similar proportion of private market homes but again their market absorption is likely to be more challenging on larger sites.

Table 6.1: Composition of all detailed permissions outstanding

	Small site	Large site
Housebuilder	51%	50%
Average site size (homes per scheme)	50	493
Houses (flats)	68% (32%)	56% (44%)
Private homes (market sale)	78%	82%

Source: ChamberlainWalker analysis based on Glenigan data

6.2 Commercial housebuilders and other housebuilders

The Glenigan data also allows us to split out the planning permissions of commercial housebuilders (mainly the PLCs) and other housebuilders – a diverse group including not-for-profit entities such as local authorities and housing associations, as well as investment companies. The split and definitions are Glenigan’s.

51% of the 72,304 detailed planning permissions granted in the last three years can be attributed to commercial housebuilders and almost half of that, in turn, belonged to just five of the largest commercial housebuilders (Taylor Wimpey, Persimmon, Barratt, Springfield and Bellway), as shown in table 6.2:

Table 6.2: Permissions granted 2016-18 by commercial housebuilder

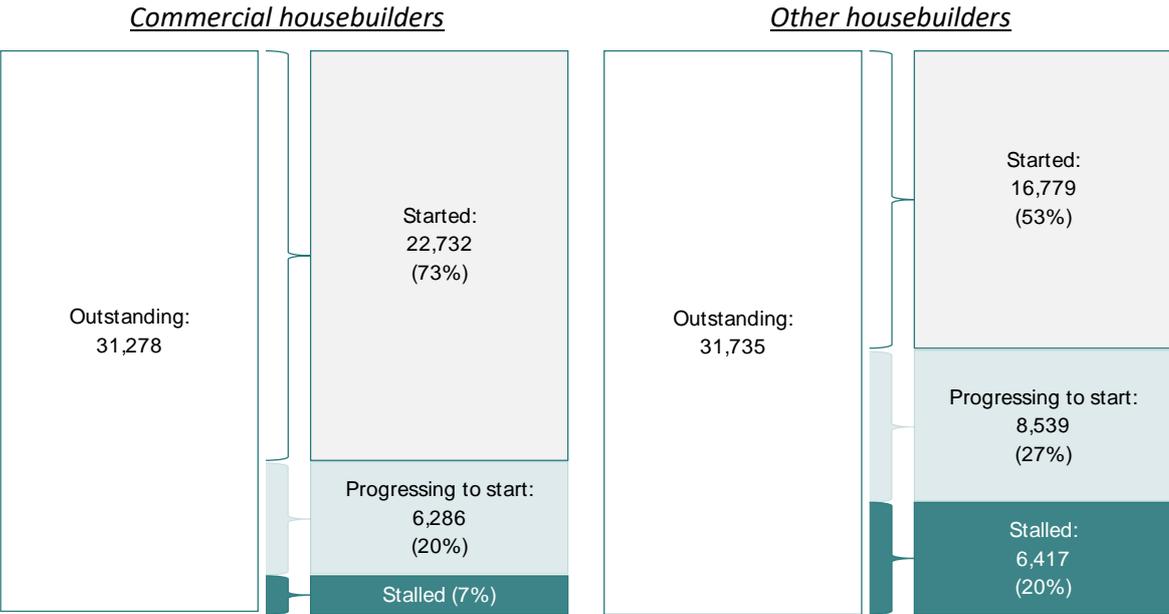
Housebuilder	No. of permissions
Taylor Wimpey	5,051
Persimmon	3,803
Barratt (excl. David Wilson)	3,825
Springfield	2,581
Bellway	2,353
Total	17,613

Source: ChamberlainWalker analysis based on Glenigan data

The data show commercial housebuilders deliver completions on their planning permissions quicker than other housebuilders: 29 per cent of commercial housebuilder permissions granted during 2016-18 had been completed by the end of 2018, compared to only 19 per cent of other developers' permissions.

As well as being quicker to complete their planning permissions, commercial housebuilders are also more likely to have started their outstanding planning permissions (73 per cent vs 53 per cent for other housebuilders). Broadly the data infer commercial housebuilders 'get going' on site more quickly, as shown by the 'started' blocks in figure 6.2. One reason for the difference could be that housing associations and councils need planning permission earlier than commercial housebuilders, to obtain other consents and funding, though these represent only part of "other housebuilders" – a group with widely varying motivations, including social benefit and private profit (e.g. investment companies)

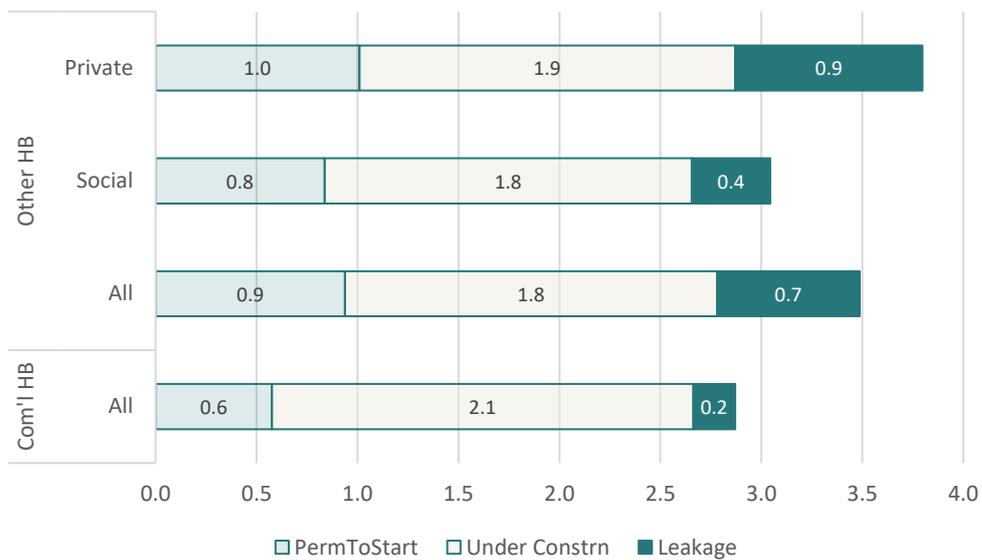
Figure 6.2: All detailed permissions outstanding



Source: ChamberlainWalker analysis based on Glenigan data

Overall, commercial housebuilder land banks, measured as years' worth of completions, are leaner than other housebuilder land banks, mainly due to a significantly smaller proportion of stalled sites (or 'leakage') – 7% compared to 20% for other housebuilders, as shown in figure 6.3:

Figure 6.3: Indicative comparison of land banks (years) by developer type



Source: ChamberlainWalker analysis based on Glenigan data

However, figure 6.3 also shows that, once they've got going, the commercial housebuilders appear to build out *more slowly* compared to other housebuilders ('under construction' being 2.1 years for them versus 1.8 years for other housebuilders). The table below suggests longer build-out times for commercial housebuilders could be linked to larger site sizes and a high proportion of homes for market sale. Both factors combined will mean build times are influenced, i.e. slowed, by market absorption rates, discussed earlier in the chapter.

Table 6.3: Composition of all detailed permissions outstanding

	Commercial housebuilder	Other housebuilder
Average site size (homes per scheme)	105	65
Houses (i.e. not flats and other development types)	82%	45%
Private homes (market sale)	96%	64%

Source: ChamberlainWalker analysis based on Glenigan data

As noted previously, other housebuilders are a diverse group and include a mix of local authorities and housing associations. It also includes investment companies and land promoters. Interestingly, other housebuilders' social land banks (measured as years' worth of completions) are leaner than their private land banks. But this does not appear to be to do with differences in build-out times (1.9 vs 1.8 years). Instead it might suggest that other housebuilders are somehow less efficient at delivering new market housing than commercial housebuilders – the latter need to deliver new housing as quickly as possible (subject to market absorption constraints) to deliver capital returns to their shareholders. It might also suggest a process of planning permissions being reconfigured once they have passed from land promoter to a commercial housebuilder, a process which also takes time.

The analysis for this report is constrained by the data and categorisation of commercial housebuilders and others. Further analysis may be possible to better categorise other housebuilders. Glenigan could be commissioned to provide a bespoke dataset. Further research is recommended to identify whether there are significant differences between commercial housebuilders and others at a more granular level, differentiating 'other' housebuilders by their social/commercial motivations.

7 Land bank and planning pipeline estimates by Scottish local authority

Chapter in a nutshell

Inevitably the average land bank size will be bigger in some local authorities than in others.

Consistent with the national analysis, land banks are bigger in local authorities where average sites are bigger. Further, there is a possible link between how difficult sites are to develop (brownfield) and land bank size.

Land banks are also bigger in local authorities where planned growth in housebuilding is higher. Average land banks are biggest in Glasgow, East Renfrewshire, and Dundee, at 8.2, 8.0 and 5.3 years respectively. But if programmed future completions (planned growth) transpire across the piece the average land bank in these three local authorities will fall to only 2.6, 4.1, and 2.2 years respectively. This highlights the sensitivity of land bank estimates to assumed completions and illustrates how planned future growth in completions is an important contributing factor to the variance in land bank size.

There is little or no correlation between the average land bank size in a local authority and developer types (commercial housebuilder vs other housebuilder), sector (private vs public) or development type (houses vs other e.g. flats). There also appears to be no significant relationship between land bank size and contextual market factors such as housing affordability judged by the house price to earnings ratio.

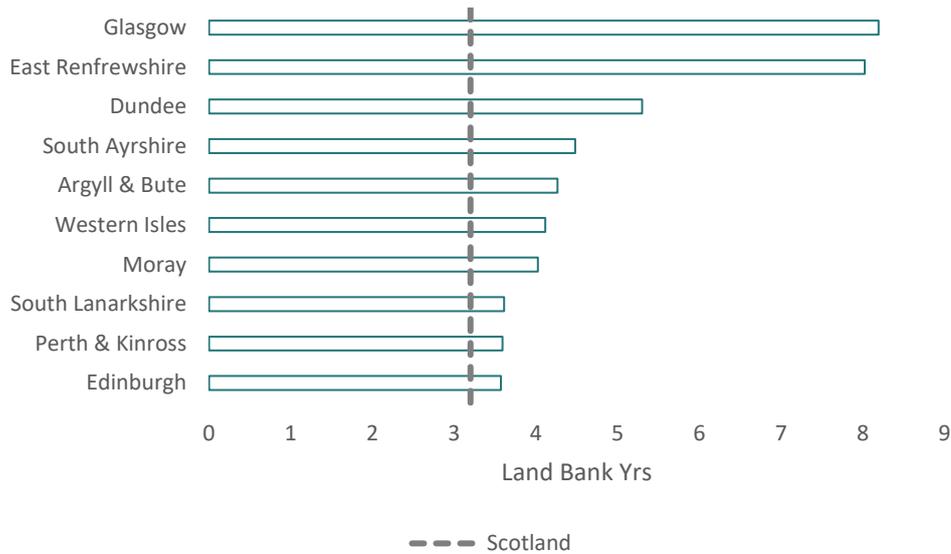
We sought the views of officials at a selection of local authorities about their land bank sizes and present the highlights in a series of 'local authority perspectives'.

Having estimated the land bank at the national level, we go on to estimate land banks at the local authority level.³⁷ Inevitably the average land bank (of commercial and other housebuilders) will be bigger in some local authorities than in others. Local factors and challenges may explain these. Commercial housebuilders and other housebuilders operating in certain local authorities may require bigger land banks for legitimate reasons.

³⁷ *The estimates are only indicative and are subject to more uncertainty than national estimates.*

Average land banks are biggest in Glasgow (8.2 years), East Renfrewshire (8 years), and Dundee (5.3 years) and above the Scottish average in 10 local authorities, as shown in figure 7.1:

Figure 7.1: Land bank estimates by local authority area (top 10)



Source: ChamberlainWalker analysis based on Glenigan data

As noted back in chapter 5, there are rationale explanations that can explain these variations. To recap, these include:

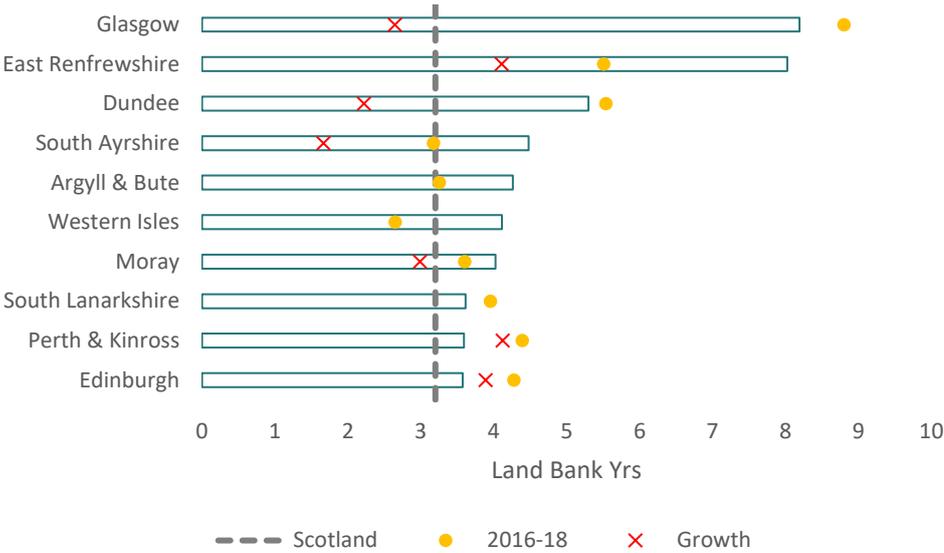
- differential growth rates (of completions) – a higher growth rate requires more permissions relative to current completions;
- composition & nature of sites: site size, brownfield etc.; and
- planning or market conditions.

7.1 Differential growth rates (of completions)

As discussed previously, future completions growth requires an increased inflow of permissions a number of years in advance of increased completions. Land bank estimates can be adjusted for planned completion growth rates, including those of individual councils. Local authority housing audits provide an indication of planned

growth based on programmed future completions.³⁸ Figure 7.2 shows, once again, the 'top ten' local authority areas ranked by estimated land bank size, but now the baseline land bank estimates are based on programmed future completions, marked by an x, where the information is available and as summarised in annex 2:

Figure 7.2: Land bank estimates by local authority area



Source: ChamberlainWalker analysis based on Glenigan data

If programmed future completions transpire the average land bank in Glasgow, East Renfrewshire and Dundee will fall to only 2.6, 4.1, and 2.2 years. Further, only East Renfrewshire, Perth & Kinross and Edinburgh would remain above the current national average, and modestly so, if local authority ambitions are met across the piece. It is evident that most local authorities are planning for strong growth in completions: Glasgow, Dundee and South Ayrshire particularly.

The revised average land bank estimates (x) are generally lower than the baseline average estimates, and the pattern of variation by local authority is changed. This highlights the sensitivity of land bank estimates to assumed completions and illustrates

³⁸ Programmed completions are based on effective land supply expected to be built out over a five year period. Figure 7.2 takes an average of programmed completions for 2019/20-2021/22. Moray's programmed completions are adjusted totals providing a realistic assessment of potential output taking account of market conditions. It is not clear whether similar adjustments are made for the other local authorities so estimates should be treated with caution.

how planned future growth in completions is an important contributing factor to the variance in land bank size.

Figure 7.2 also shows what happens to land bank estimates by local authority based on average recent completions (2016-18), the yellow dots, rather than current (2018) completions, further illustrating the sensitivity of land bank estimates to completions. This is particularly relevant at local level where completions rates fluctuate more year on year than nationally.

Box 7.1: Local authority perspectives 1**Glasgow**

House building struggled post-financial crash with some challenging market conditions in the private sector. Before the crash there were around 2,000 private completions a year whereas in recent years it was closer to 1,000 (local figures). In 2018/19, there were 1,028 private and 1,037 affordable completions with much of the recent completions growth through affordable supply (via additional central government grant). There has been some progress towards the latest Plan target supply of 29,970 over 12 years (2012-24) or circa 2,500 a year. It is believed both private and affordable will continue to rise to this level with a 50:50 split broadly maintained.

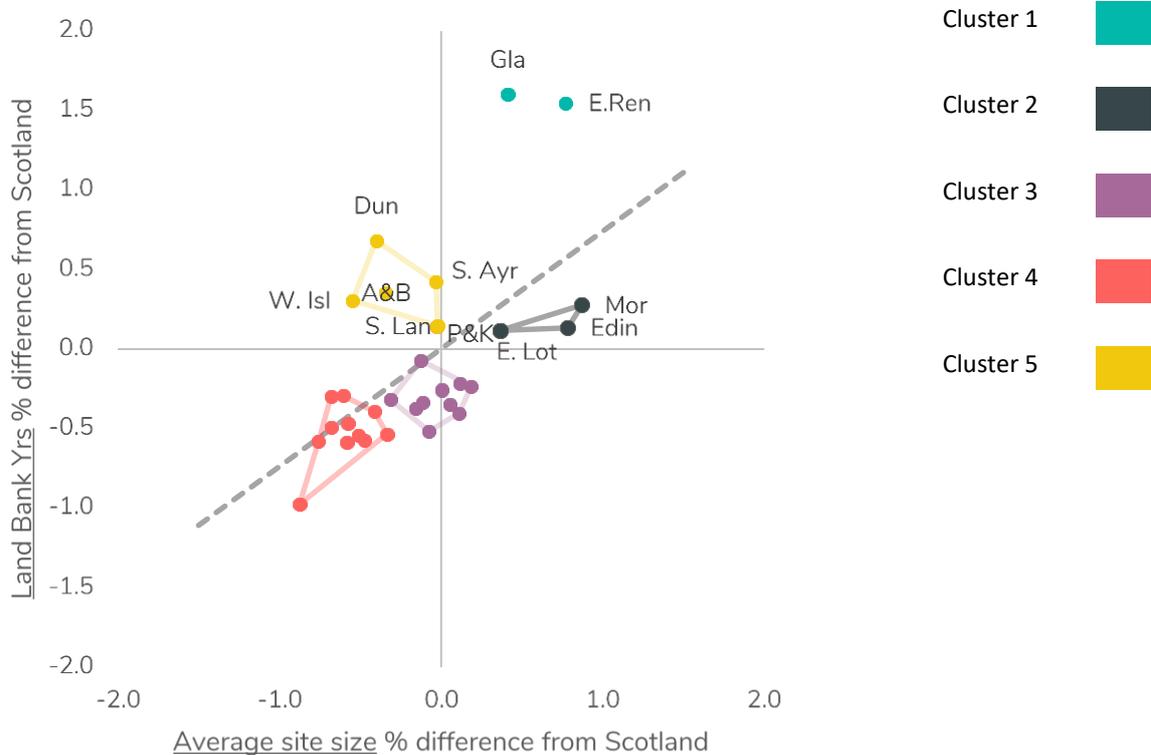
Dundee

Until recently the population was declining, but recent years have seen growth and urban renewal. Over 200 homes were built last year but strong planned completions growth should mean around 430 are built this year, according to the latest housing land audit nearing completion (local figures). The 430 figure is also close to the recently adopted Tayplan's housing target of 480 for Dundee. The housing land audit suggests building 400+ homes a year is likely to be sustained.

7.2 Composition and nature of sites

There is a moderately strong correlation between the average site size in a local authority and the average land bank in that local authority. In other words, average land banks are bigger in local authorities where average sites are bigger. This is consistent with the findings in chapter 6 in respect of large sites (+250 homes) and small sites (<250 homes) at the national level. The dotted line shows a perfect positive linear trend i.e. larger land banks are associated with larger average site size and many local authorities are close to this line:

Figure 7.3: Relationship between land bank size (years) and average site size, by local authority



Source: ChamberlainWalker analysis based on Glenigan data

Clusters 1, 2 and 5 include the ten local authorities where average land banks are biggest (all above the Scotland average of 3.2 years) and so these sit above the horizontal axis.

On the one hand, the average land bank in Perth and Kinross is reasonably close to the linear trend line i.e. the slightly above average land bank size is explained by the slightly above-average site size. On the other hand, the average land bank in Dundee is some distance above the linear trend line i.e. factors other than site size must be at play for the well-above average land bank size there. Similarly, the average land banks in Glasgow and East Renfrewshire are far away from the dotted line – higher than national average land banks in these local authorities cannot be wholly explained by larger sites. Once again, the planned future growth in completions is likely to be part of the explanation for Dundee, Glasgow and East Renfrewshire.

Sometimes there is a link between the need for growth and use of large strategic sites which may also be dependent on substantial upfront infrastructure needs:

Box 7.2: Local authority perspectives 2Perth & Kinross

Perth & Kinross is an expanding area and has been for the last 30 years. Its population growth is in the top five of LAs in Scotland. But insofar as land for housing growth, many of the 'easy options' have been used. In the 1990s it became evident tacking on a few houses to a village here and there would not be sustainable. It would be much better to develop bigger sites in and around the key settlements. The big sites take many years to develop, sometimes decades. The Great Recession took its toll on housebuilding but in 2018 completions are almost back up to the average levels seen pre-recession (600 – 700 units). In 2018 there were 578 completions and in 2019 it should be almost 700. The council is very pro-growth but growth in Perth & Kinross means big sites in strategic development areas. Large housing sites in Perth & Kinross are largely greenfield. Other small sites in rural areas are half and half brown/greenfield.

Higher land banks could also be to do with the number of sites – for example, lots of small sites might be indicative of more challenging urban-brownfield developments, including infill, which take longer to build out. Dundee for example has a well-above average *number of sites* relative to its completions and this could be indicative of disparate (and small) brownfield sites which are more challenging to build-out.

Box 7.3: Local authority perspectives 3Dundee

Dundee is a small city with a small footprint. The local authority as a whole is challenged by a very tight boundary / limited land area. There are no greenbelt constraints but usual challenges around building on the open countryside. There is plenty of brownfield the result of the city's industrial past and legacy (i.e. disused factories) and also council house demolitions.

The nature of the sites in Dundee is often only 20-30 units. Brownfield can also present some viability challenges and delays to development. These are just the usual issues of decontamination, poor ground conditions but nothing particularly different to other towns or cities. One minor infrastructure constraint concerning brownfield

development is Scottish Water's requirement (regulatory) for surface water to no longer drain into the sewage system but instead into the water course. This is a valid issue concerning environmental protections but has caused delays to building out several brownfield sites in Dundee during the last six months. Solutions do exist but these are more costly than simply connecting to the combined sewer. In the past there has been a reliance on brownfield for land supply, but there has been a big release of greenfield land during the last two years helping to support the uptick in housebuilding.

7.3 Planning or market conditions

Surprisingly, there appears to be no significant relationship between land bank size and contextual market factors such as housing affordability judged by the house price to earnings ratio. Notwithstanding, housebuilding in Glasgow and Dundee – two of our outliers in terms of average land bank sizes – is supported by extensive affordable housebuilding programmes where market factors may be less important. The table below summarises some of the contextual indicators we have considered but found not to be significant *prima-facie*.

Table 7.1: Summary of indicators considered

Factor	Local authority indicator
Housing affordability	Ratio of median house prices to median workplace earnings (captures local supply-demand imbalance)
Completions relative to need	Recent completions relative to local housing requirements (captures extent of any under-supply and need for increased permissions to support housing growth)
Population density	Persons per square metre (previous studies have used population density as a proxy for land constraints)
Dwellings density	Dwellings per hectare (previous studies have reported land supply constraints associated with higher densities)
Urban dwellings density	Dwellings per hectare of land classified as 'urban' (previous studies have reported land supply constraints associated with higher densities)

8 Land use and ownership pre-planning permission

Chapter in a nutshell

This chapter is an exploratory case study of looking at land use and ownership in Moray – what is happening in the development pipeline *prior* the planning permission stage. It moves on to consider land availability for housing development there.

A very small proportion of Moray's land is developed. 1.1 per cent of Moray's land area is classified as urban fabric (Scotland 1.6 per cent). Other 'developed' uses include industrial or commercial units, airports and construction sites. All in all, an estimated 2.5 per cent of Moray's land area is developed (Scotland 2.9 per cent).

Overall availability of 'raw land' for housing development in Moray is sufficient to deliver the 5,473 homes it needs over the development plan period.

However, land supply shortfalls exist in three of Moray's local housing market areas, namely Buckie, Keith and Speyside. The potential for land availability constraints is evident in these areas over the planning period. These areas also have noticeably higher concentrations of landownership than the other local housing market areas of Moray. In Speyside, for example, the top one landowner owns 89 per cent of total effective land supply.

Overall, designated 'effective land supply' in Moray appears to be owned by a small number of players. The same is true of land more generally, but to a lesser extent. Ownership concentrations are higher in local housing market areas where not enough land is designated to meet assessed need and demand. However, this analysis only demonstrates a correlation of landownership concentration and constrained supply, it does not demonstrate causality. Further analysis, of Scotland's other local authorities for example, would enable this to be established more definitely.

If the supply of raw land is being constrained it could be at least part of the reason why there are too few planning permissions in the system. But there could be other reasons, too.

This chapter provides wider context on residential land supply in Scotland. The land bank analysis in chapters 5-7 is focussed on a small part of the development pipeline,

namely from the point of planning permission being granted. However, builders require a longer pipeline of sites pre-planning permission – of ‘raw land’ – to maintain production. The ease with which builders can obtain raw land for development and bring it forward for planning permission is also likely to influence the size of permissioned land banks builders must hold.

There is limited information on builders’ pre-planning pipelines. Callcutt (England, 2006) and other studies indicate a pre-planning pipeline of 1.8 to 2.6 years. Other sources of evidence include commercial housebuilders’ annual reports. The commercial housebuilders typically distinguish between short term land and strategic land. Definitions vary, but short term land often means owned/controlled and with some form of planning permission (outline or detailed). Strategic land is typically optioned rather than owned and is pre-planning. For example, Taylor Wimpey’s latest annual report states a short term land bank of 76,000 plots (Group-level so includes rest of UK), or 5.1 years of land supply at their current completion rates.³⁹ But Taylor Wimpey also has one of the largest strategic pipelines in the sector with around 127,000 plots, or 8.5 years of land supply at current completion rates.

Access to ‘raw land’ is a fundamental concern for housebuilders. They invest significant resources into identifying potential sites (‘hunting’), negotiating with landowners and promoting sites for planning (‘farming’). Land promoters also often play an intermediary role, often seeking to obtain planning permission before selling on land to a housebuilder. Whilst overall land constraints and planning have a bearing on developers’ ability to secure raw land, they are ultimately at the mercy of the land market and landowners. Landowners must be willing to release their land, at a price enables new housing to be delivered on a commercially viable basis.

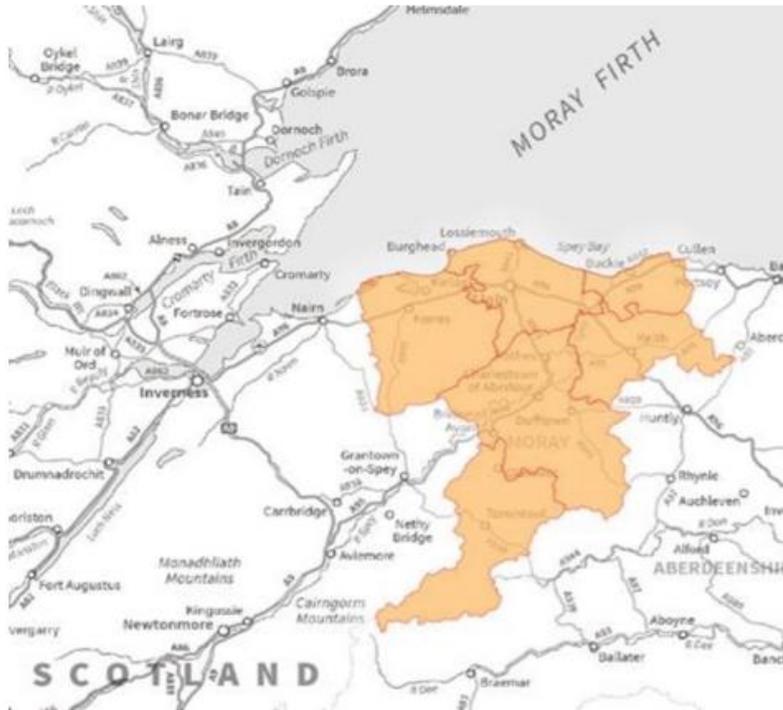
It is perhaps surprising that so little attention has been paid to the pre-planning land supply chain, until recently. But it is less surprising given the paucity of data. The remainder of this chapter attempts to shed light on the issues by means of an exploratory case study.

8.1 Moray: an exploratory case study

Moray lies to the North-East of Scotland, incorporating the Moray Firth coastline, the broad lowlands further south, and the more mountainous area that is part of the Cairngorms National Park. Moray borders the Aberdeenshire and Highland council areas.

³⁹ [Taylor Wimpey Annual Report 2019](#)

Figure 8.1: Map of Moray



Source: Mould Economics

Moray has a total population of 95,520 and land area of 2,238 square kilometres. The area is mostly rural, with a low population density of 43 persons per square kilometre.⁴⁰ Moray ranks 17 out of 32 Scottish council areas by population density. Compared to the rest of Scotland, Moray has a much smaller proportion of its population living in urban areas, but most residents live within a 60-minute drive of a settlement of at least 10,000 population. More than half of the population live in the five main towns of Elgin, Forres, Buckie, Lossiemouth and Keith.

House prices are below average. The average (mean) purchase price in 2018 was £165,884, compared to £179,121 nationally.⁴¹ Affordability (ratio of median prices to median earnings) is about average. Moray's rate of housing supply is above average in terms of completions per 1000 population and per 1000 households. Historic completions are summarised below, from two data sources:

⁴⁰ National Records of Scotland [Mid-2018 Population Estimates](#) (access June 2019)

⁴¹ Registers of Scotland [House Prices Statistics](#) (accessed June 2019)

Table 8.1: Recent new build completions

	2014	2015	2016	2017	2018
Housing Land Audit 2019 ⁴²	309	337	334	382	312
Scottish Govt statistics ⁴³	425	327	429	359	335

Source: Moray Council and Scottish Government statistics

Recent completions are less than the Local Development Plan 2015 number of 538 units per annum but more than the latest estimated need, of 304 units per annum or 5,473 over the Plan period. The latter is reflected in the proposed Local Development Plan 2020.⁴⁴

8.1.1 Land uses

A very small proportion of Moray’s land is developed. 1.1 per cent of Moray’s land area is classified as urban fabric (Scotland 1.6 per cent). Other ‘developed’ uses include industrial or commercial units, airports and construction sites.⁴⁵ All in all, 2.5 per cent of Moray’s land area is developed (Scotland 2.9 per cent).⁴⁶ Most land is undeveloped:

Table 8.2: Land use in Moray and Scotland (per cent)

	Moray	Scotland
Developed	2.5	2.9
Undeveloped:	97.5	97.1
Arable land (non-irrigated)	14.4	10.1
Pastures	19.7	18.7
Coniferous forest	21.6	11.1
Moors and heathland	19.7	15.6
Peat bogs	9.7	23.6
Other	12.4	18.0
Total	100.0	100

⁴² Moray [Housing Land Audit](#) (2019)

⁴³ Scottish Government [new build completions](#) statistics (accessed June 2019)

⁴⁴ [Local Development Plan 2020](#). Proposed Local Development Plan 2020 (accessed June 2019)

⁴⁵ based on information in the [Land Use Cover Atlas of the United Kingdom](#) (2017) and [accompanying maps](#)

⁴⁶ Developed refers to “artificial surfaces”

Source: ChamberlainWalker based on the Land Use Cover Atlas of the United Kingdom (2017) and accompanying maps (based on Corine Land Cover data for 2012)⁴⁷

The estimated dwelling stock (2017) is 44,646.⁴⁸ Based on Moray's total land area, dwellings density is around 20 dwellings per square kilometre (0.2 dwellings per hectare).⁴⁹ Assuming most dwellings sit within land classified as urban fabric, dwellings density within its curtailment is around 1,700 dwellings per square kilometres (17 dwellings per hectare). The latter includes the footprint of dwellings, as well as garden space and supporting urban infrastructure such as roads. Land take for new homes is likely, therefore, to be somewhere close to 1,700 dwellings per square kilometre. Data obtained from Moray's housing land audit suggests an average of around 1,500 dwellings per square kilometre, which helps to validate this estimate.

Moray's housing need and demand over the 18-year plan period is 5,473 homes. The land take associated with 5,473 completions over the 2020 Development Plan period (2018-2035) could be of the order of 3.65 square kilometres on the basis of 1,500 dwellings per square kilometre. This is equivalent to under 0.2 per cent of Moray's total land area, of which around 5-10 per cent is likely to be previously-developed land (also referred to by Moray's housing land audit as 'brown' land, otherwise known as brownfield land).⁵⁰

The Local Development Plan 2020 identifies a higher land requirement of 7,115 units i.e. 30 per cent higher to account for some sites not coming forward as anticipated and changing circumstances.

In the context of Moray's total land area, land availability seems an unlikely constraint on new residential development. However, only a subset of the total land area will be suitable for residential development. Factors making it unsuitable include:

- lack of proximity to existing settlements and infrastructure e.g. road access;
- topography e.g. steep slopes and peat bogs are not easily developable;
- current land uses could prevent residential development e.g. valuable primary agricultural land; and

⁴⁷ Copyright rests with the European Commission; Acknowledgement: Produced by the University of Leicester, The Centre for Landscape and Climate Research and Specto Natura and supported by Defra and the European Environment Agency under Grant Agreement 3541/B2012/R0-GIO/EEA.55055 with funding by the European Union

⁴⁸ Government [dwelling stock](#) statistics (accessed June 2019)

⁴⁹ Consistent with figures published by the National Registers of Scotland. See [table 8](#).

⁵⁰ Moray's Land Audit 2019 suggests at least 90% of established land supply is Green land

- land protected in national policy e.g. designated national parks or designated as greenbelt.

Some of the raw land suitable for development may also be needed for other uses, besides housing, including for employment.⁵¹

8.1.2 Housing Land Audit

A more detailed assessment of land available for residential development can be found in Moray's housing land audit, which benefits from local knowledge produced in consultation with housebuilders and landowners. The 2019 audit indicates established land supply for 12,387 homes.⁵² The table below summarises the 2019 housing land audit (published in May 2019) alongside more recently revised numbers (not published).

Table 8.3: Housing land supply (housing units)

	2019 HLA	Latest HLA (not published)
Effective	4,189	3,864
Constrained	8,198	8,133
Deficit funding	24	24
Effective 5yr+	1,560	1,495
Marketability	1,109	1,109
Ownership	122	122
Physical	276	276
Programming	362	362
LONG	4,745	4,745
Established	12,387	11,997

Source: Moray Council

Only a third of the land available for development (3,864 of 11,997 units-worth) is considered effective supply, i.e. free of constraints. However, the constrained land includes land anticipated to be effective beyond the next five years. The total of existing and future (5 year+) effective land supply is 5,359-5,749 units. This means **there is**

⁵¹ Moray [Employment Land Audit](#) (2019) The proposed Local Development Plan 2020 confirms the need to provide sufficient land and buildings for industrial and business uses and notes an annual requirement of 0.04-0.05 square kilometres per year. Moray's employment land audit indicates a gross established employment land supply of 2 square kilometres, though a large portion of this is constrained for various reasons.

⁵² Using the same density assumption as before suggests this is equivalent to 8.3 square kilometres.

broadly sufficient land availability over the plan period to deliver total completions of 5,473 over the Development Plan period (2018-2035) but with little contingency for sites not coming forward as anticipated and changing circumstances.

However, so-called LONG designations⁵³ have enabled the Council to maintain a good effective supply of housing land in recent years. The table above shows LONG sites with potential to deliver 4,745 units. The proposed Local Development Plan 2020 states that the additional land will be met through the designation of new sites in Buckie, Elgin and Forres local housing market areas (LHMAs).

In summary, overall land availability in Moray appears sufficient to deliver the quantum of homes needed over the Plan period, but the extent of development on much of that land – whether land is likely to be a constraint on new residential development – is contingent on various factors. These include such as the location of land in relation to demand and the extent to which landowners release their land for development. These issues are explored further below, based on data from Moray's housing land audit and Registers of Scotland, following a brief consideration of what permissioned land banks tell us about land availability.

8.1.3 Detailed permissions

Chapter 7 noted Moray has a permissioned land bank of four years' worth of completions, reasonably close to the Scotland average of 3.2 years. The pipeline lengths are:

- 34 months to progress a detailed planning permission to a start on site
- 15 months under construction

The pipeline length from permission to start on site is much longer than the national average (Scotland 9 months) and the pipeline length under construction is much lower than the national average (Scotland 24 months). But the estimates are skewed by a single large development permissioned in 2018.

Again, it is also important to bear in mind the effect of future growth in completions. The land bank estimate of four years is based on annual housing delivery of 335 completions. Moray's housing land audit suggests a higher rate of completions over the next three years (average 451), which would reduce the land bank to around 3.0 years, below the Scotland average.

All considered Moray's permissioned land bank appears to be commercially justifiable. There is no suggestion that housebuilders there are hoarding permissioned

⁵³ *The release of LONG term designations is controlled but the key trigger is a shortfall of the five-year effective land supply in the annual Housing Land Audit which cannot be met through other means.*

land. One reason housebuilders might be motivated to hoard permissions is if replacement land is in scarce supply and they want to maintain a steady flow of production. **The lack of evidence of hoarding of permissioned land may be indicative of good availability of raw land in Moray and confidence that landowners will release it for housing development.**

8.1.4 Land supply relative to demand

The table below shows the balance of supply and demand for land by local housing market area within Moray.⁵⁴ The housing figures are indicative and estimated on the basis of Moray's Housing Need and Demand Assessment 2017.⁵⁵

Table 8.4: Housing land supply and demand by local housing market area

LHMA	Housing need and demand (homes)	Housing need and demand (homes) +30%	Effective land supply			Land shortfall [5]-[2]
			Existing land supply (homes)	5yr+	Total	
	[1]	[2]	[3]	[4]	[5]	[6]
Buckie	905	1,176	219	0	219	-957
Elgin	2,738	3,559	2,798	1,000	3,798	239
Forres	957	1,244	641	416	1,057	-187
Keith	452	587	94	79	173	-414
Speyside	422	548	112	0	112	-436
Total	5,473	7,115	3,864	1,495	5,359	-1,756

Source: ChamberlainWalker analysis based on reports for and by Moray Council

There are land supply shortfalls in all local housing market areas with the exception of Elgin. The largest shortfall is in Buckie (-957 units). The new site designations are: Buckie (+250), Elgin (+1200), Forres (+250), Keith, (0), Speyside (0). These do not appear to reflect the apparent land demand-supply imbalances, apart from Forres, i.e.

⁵⁴ excluding the proposed new site designations

⁵⁵ http://www.moray.gov.uk/moray_standard/page_123835.html

Buckie (-957), Elgin (+239), Forres (-187), Keith (-414), and Speyside (-436). The supply shortfall against demand in Buckie, Keith and Speyside could reflect land availability constraints, as indicated by the revised land shortfall in table 8.5:

Table 8.5: Effective housing land supply-demand imbalance with new site designations

LHMA	Land shortfall	New site designations	Revised land shortfall
	[1]	[2]	[1]+[2]
Buckie	-957	+250	-707
Elgin	239	+1,200	1,439
Forres	-187	+250	63
Keith	-414	0	-414
Speyside	-436	0	-436
Total	-1,756	1,700	-56

Source: ChamberlainWalker analysis based on reports for and by Moray Council

The proposed Local Development Plan 2020 offers some rationale in respect of Keith and Speyside:

“While housing land and housing completions have shown consistent levels of growth in Elgin, Forres and Buckie, growth in Keith and Speyside has been much slower, especially in Speyside where there has been very limited activity on sites identified in previous local development plans.”⁵⁶

However, it is possible that the slow rate of completions in Keith and Speyside is a result of land constraints.

In summary, the numbers indicate the potential for very localised land availability constraints, in certain local housing market areas – Buckie, Keith and Speyside – over the plan period.

8.1.5 Ownership concentrations of designated effective land supply

Any concentration of landownership may be an issue for two reasons:

⁵⁶ Pg.12 Moray Local Development Plan 2020 <http://www.moray.gov.uk/downloads/file123059.pdf>

- it may provide landowners with sufficient market power such that it is profitable for them to hold back their land in order to limit its supply and drive up its value. Such behaviour is typically assumed to be the motivation for the land banking of *permissioned land*, but in fact land banking of *raw land* may be at the root of concerns about 'land banking' which have gained traction in the political discourse; and
- it may be the equivalent of putting too many eggs in one basket. If concentrated ownership is reflective of a small number of sites, then just one site failing to come forward for development would impose a significant constraint and hit local housing supply very hard.

Figure 8.2 below shows landownership 'concentration ratios' for total effective land supply only, for each LHMA.⁵⁷ It is worth remembering that effectively land supply is only a small proportion of all 'raw land' that might be suitable for housing development.

The concentration ratio is the proportion of land owned by the largest landowner(s) in each LHMA. It shows that landownership is very highly concentrated in the LHMA's where land constraints could be in play i.e. where not enough land is designated to meet demand, namely Buckie and Speyside (Keith is excluded from the analysis). In Speyside the top one landowner owns 89 per cent of total effective land supply. This reflects a single large site of 100 units (out of total effective land supply of 112 units). A high proportion of the land supply, 51 per cent, is also owned by a single owner in Buckie. Again, this is reflective of a single large site of 112 units (out of total effective land supply of 219 units).

⁵⁷ Keith LHMA is excluded because recorded land ownership there is only a small proportion of the total land concerned i.e. we simply don't know who owns most land in Keith.

Figure 8.2: Concentration ratios for total effective land supply



Source: ChamberlainWalker analysis based on Moray Council's Housing Land Audit

A smaller proportion of the land supply is held by a single owner in areas where land supply is less likely to be a constraint i.e. where there is enough land designated to meet demand, i.e. in Elgin and Forres, 39 per cent and 42 per cent respectively. This is partly to do with scale. With more effective land supply a single site (and ownership of) is less likely to dominate. Ownership is still concentrated in Elgin and Forres, just less so than in Buckie and Speyside.

8.1.6 Ownership concentrations of other land with potential for housing development

Councils' housing land audits are a rich source of information, though recent research for the Scottish Government found a number of issues, including lack of consistency and quality.⁵⁸ There is little by way of evidence on how well the audits inform local policy decisions, identify sufficient land in practice, or the extent to which the land is subsequently developed.

It is therefore helpful to consider other data sources, which have potential to provide a broader view and complement local efforts. One such source is the Registers of Scotland (ROS). ChamberlainWalker commissioned ROS, on behalf of the Scottish Land Commission, to provide a sample of data for the case study area (Moray).

⁵⁸ <https://www.gov.scot/publications/research-project-housing-land-audits-january-2019/pages/1/>

ROS currently maintain 20 public registers (source: [Wikipedia](#)), including the Register of Sasines (created by the Registration Act 1617) and Land Register of Scotland (established by the Land Registration (Scotland) Act 1979 and will eventually replace the Register of Sasines). The subsequent analysis is based on data extracted from the map-based Land Register of Scotland. Coverage is variable but improving all the time as new transactions occur and Sasine records are transferred to it.

To capture only the land with potential for housing development, the landownership data extracted from the ROS was filtered to exclude titles in existing settlements and primary agricultural land.⁵⁹ This generated 6,623 ownership titles, with an implied 50 per cent data coverage (i.e. the ROS data tell us about the ownership of about half the land).

To focus only on large landowners, titles smaller than 0.5 hectare were then also filtered out. This reduced the number of titles from 6,623 covering 1,046 square kilometres to 592 titles covering 495 square kilometres. In other words, the large landowners own nearly 50 per cent of the land area. The table below provides a breakdown:

Table 8.6: Land with potential for housing development, titles and area, by LHMA

Row Labels	Square kilometres	No. titles
Buckie	11	45
Cairngorms NP	216	23
Elgin	55	184
Forres	126	104
Keith	28	123
Speyside	58	113
Grand Total	495	592

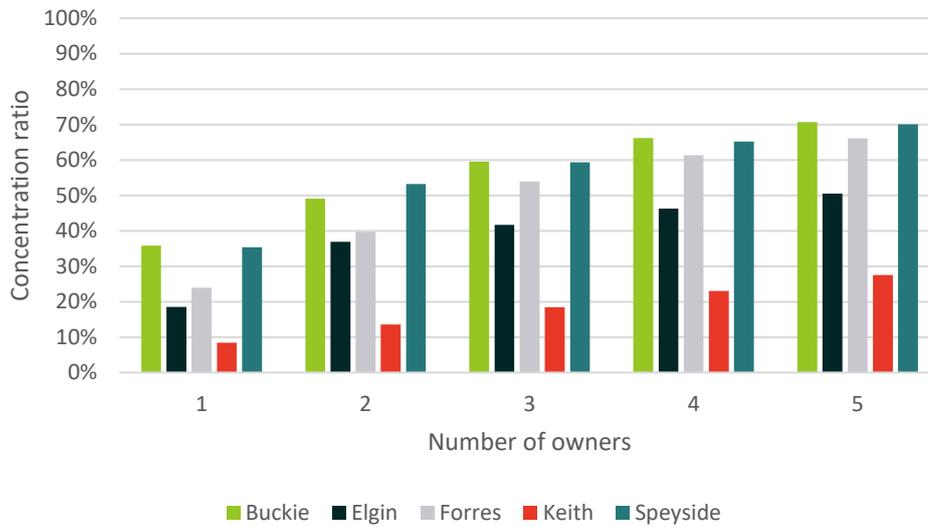
Source: ChamberlainWalker analysis based on title data supplied by Registers of Scotland

Figure 8.3 summarises landownership concentrations for each of the LHMA's (excluding Cairngorms National Park ⁶⁰) based on the filtered title data described above:

⁵⁹ These filters are based on publicly available datasets. Additional filters could be applied to further reduce the search area for titles, e.g. reflecting local policy constraints.

⁶⁰ Excluded due to small number of titles and because a low level of residential development is anticipated in the National Park.

Figure 8.3: Concentration ratios for filtered land



Source: ChamberlainWalker analysis based on title data supplied by Registers of Scotland

Landownership is most concentrated in Buckie, followed by Speyside, Forres and Elgin. In all these areas 50 per cent or more of the land is owned by the top five landowners. By contrast landownership in Keith is considerably less concentrated.

The patterns of concentration are different to those presented earlier in relation to audited total effective land supply (figure 8.2), the latter being considerably more concentrated. This highlights a scaling effect, with the housing land audit being focussed on a much smaller number of sites (covering a much smaller area) considered to be suitable for residential development based on local knowledge. In other words, a small number of sites designated in a plan almost inevitably means the ownership concentrations are higher. There could also be a behavioural effect: developers and speculators too have an incentive to increase their share of ownership/control of the raw land with the greatest development potential, even if only under option (which will not show up in the title information).⁶¹

⁶¹ Land allocated, or more weakly 'identified' as having potential for development to meet a local area's housing aspirations has an improved chance of achieving planning permission and both 'hope' and actual land values can be expected to increase.

Table 8.7: Land with potential for housing development (ROS) and effective land supply (HLA), Moray

Source	Land Register of Scotland Land with potential for housing development	Housing Land Audit Effective land supply
Constraints on land	Based on publicly available datasets described	Based on local knowledge
Land area (square kilometres)	495	3.57 ⁶²
Landowner concentration ratio (excl. Keith) ⁶³		
Top 1	28%	50%
Top 2	45%	60%
Top 3	54%	67%
Top 4	60%	71%
Top 5	64%	74%

Source: ChamberlainWalker analysis based on title data supplied by Registers of Scotland and Moray Council's Housing Land Audit

The analysis shows the potential for councils to obtain a broader perspective on land and landownership in their areas, compared to the more narrowly-focussed housing land audits. But there are gaps / incomplete coverage in the Land Register data. Moreover, additional information, including local knowledge, is needed to define the scope of sites/titles. What is clear is the starting point for councils such as Moray appears to be high levels of concentration of landownership of raw land with potential for housing development, which is then exacerbated when the scope of sites/titles is reduced to a smaller number of strategic locations in the designation of effective land supply, which developers and speculators will inevitably seek to own or control.⁶⁴

It is not clear that councils can do much about the structural issue of concentrated landownership in this regards – or, as previously noted, the extent to which it is actually a problem for housing supply delivery – but there is potential for councils to plan for a wider range of sites and to take account of landownership concentrations as part of plan-making and delivery within an overall balanced approach to pragmatism and risk.

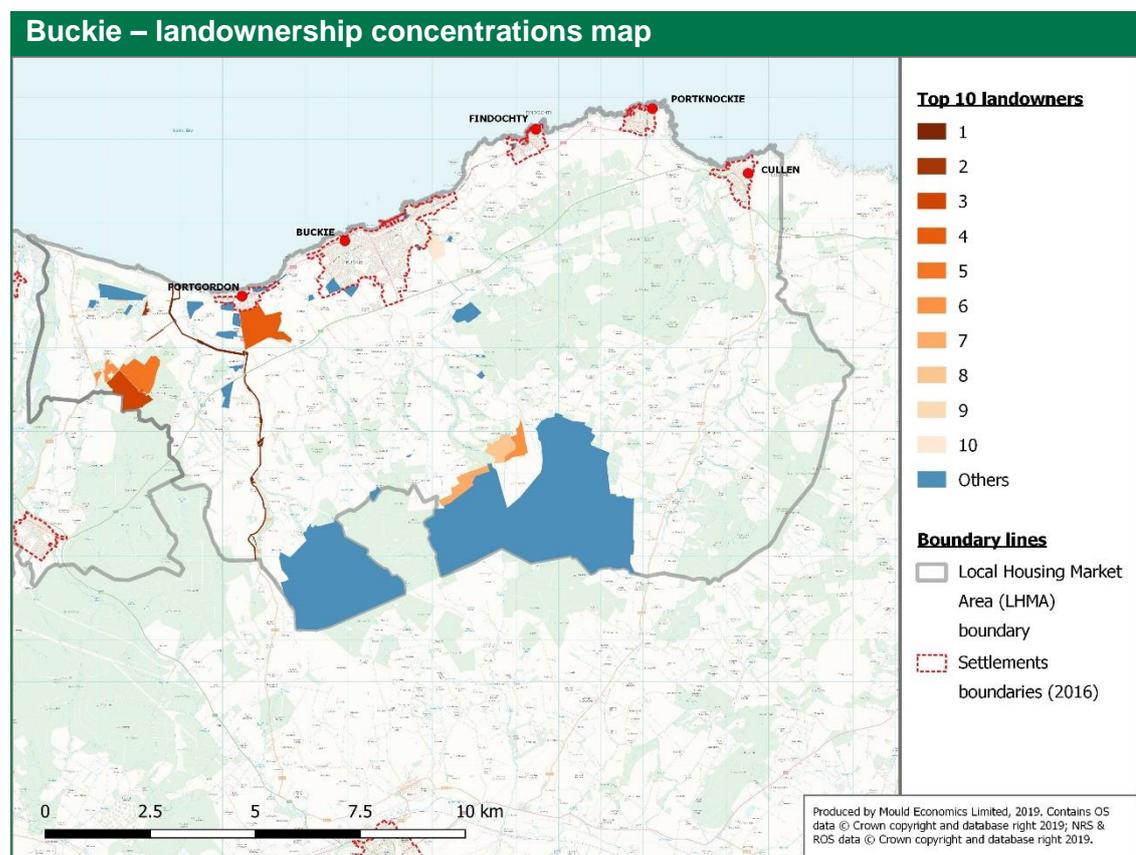
⁶² This is an estimate based on total effective land supply of 5,359 units and assumed dwellings per square kilometre of 1,500 as before.

⁶³ Simple average of each LHMA's top five concentration ratio. Keith excluded due to small sample size for land ownership in the housing land audit.

⁶⁴ It is worth noting that developers will often obtain an option providing some degree of control. Registered titles tell us about ownership rather than control and there is little evidence on the use of land options.

Overall, designated ‘effective land supply’ in Moray appears to be owned by a small number of players. The same is true of land more generally with potential for housing development, but to a lesser extent. Ownership concentrations appear higher in local housing market areas where not enough land is designated to meet assessed need and demand. However, this analysis only demonstrates a correlation between landownership concentration and constrained supply, it does not demonstrate causality. Further analysis, of Scotland’s other local authorities for example, would enable this to be established more definitely.

If the supply of raw land is being constrained it could be at least part of the reason why there are too few planning permissions in the system.

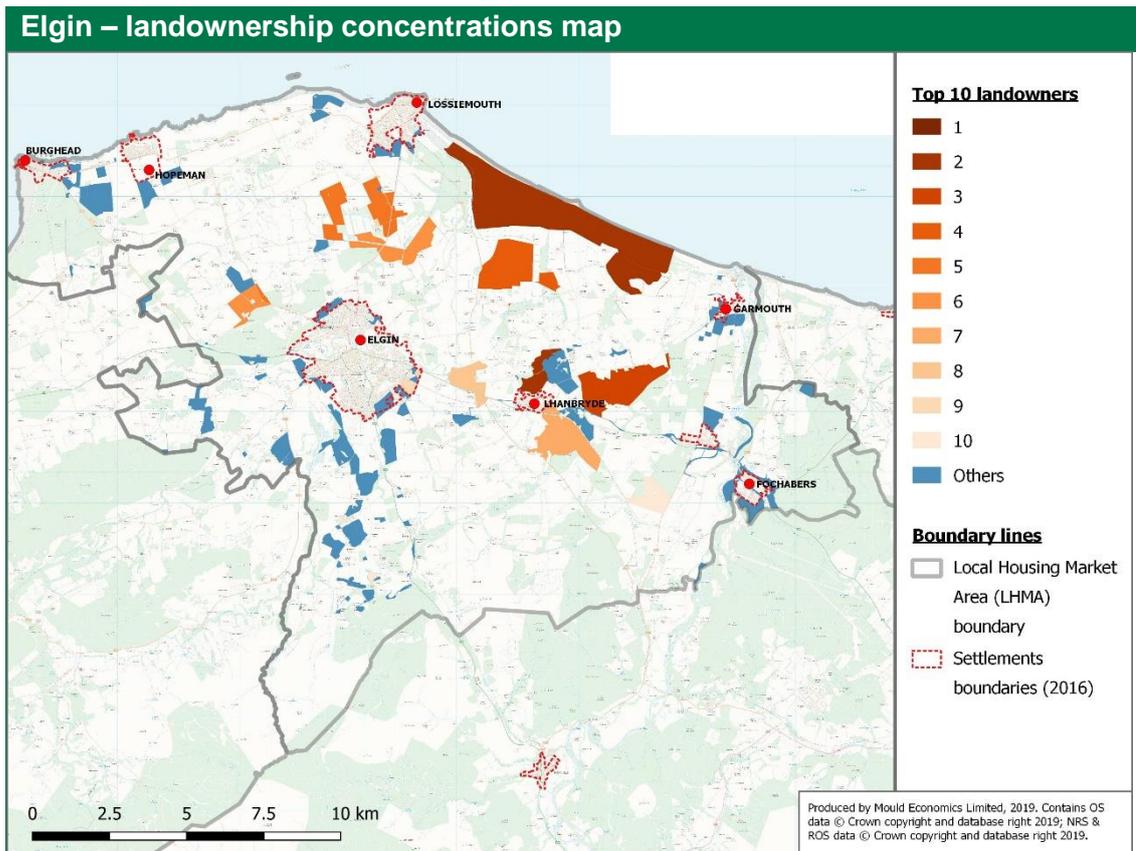


Filtered titles: 45 | Filtered land area: 11 Sq. KM

The largest landowner is an energy company (landownership 3.9 square kilometres) – windfarm electricity generation. The title boundary area is shown as a long strip of land and not suitable for residential development given its use and location. Details of the other top four landowners are not traceable (total land area 3.8 square kilometres). All the land is close to existing settlements and/or roads and land cover appears to be largely arable farming. One site (0.7 square kilometres) borders the settlement boundary of Portgordon (a village to the West of Buckie town). The fifth largest landowner (landownership of 0.5 square kilometres) is

a construction company (construction of domestic dwellings ⁶⁵). The land lies to the West near the border with Elgin local housing market area. Moray Council is amongst the top ten landowners (0.4 square kilometres) including land owned on the edge of Buckie town settlement boundary.

Of the remaining ownerships large swathes of land are some distance from existing settlements so may not be suitable for residential development.



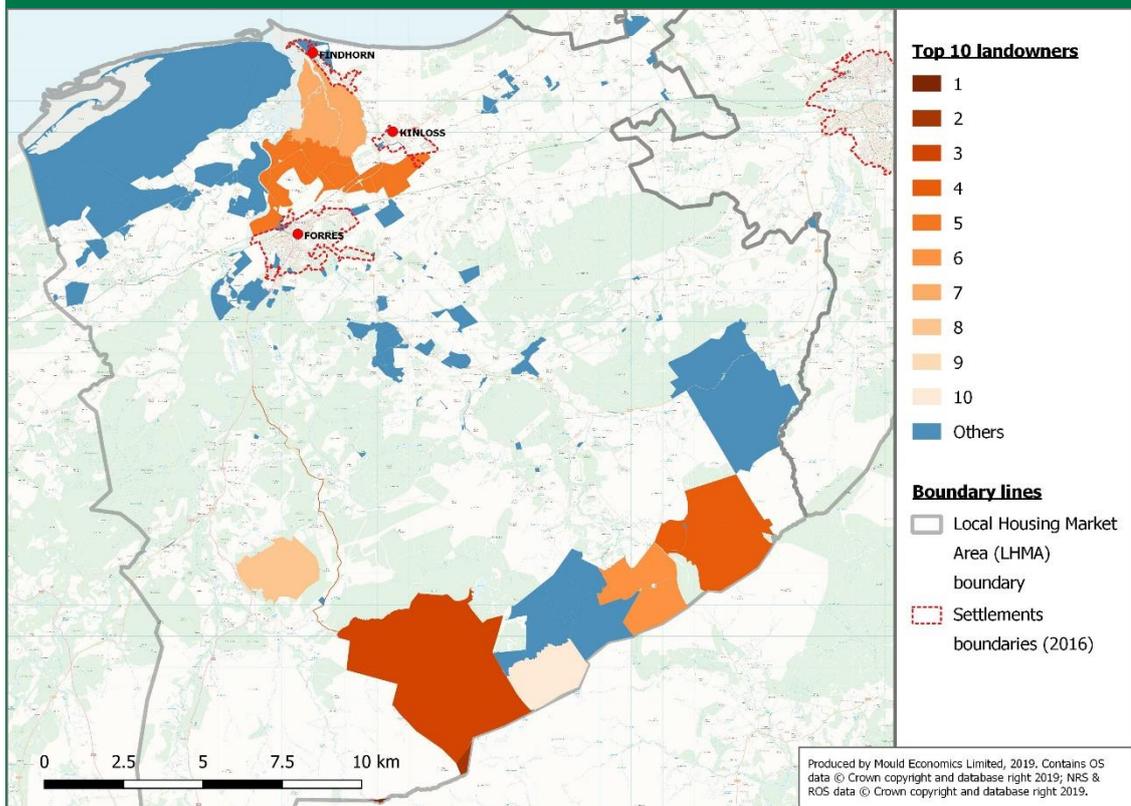
⁶⁵ Companies House SIC 41202 “nature of business” construction of domestic buildings

Filtered titles: 184 | Filtered land area: 55 Sq. KM

The top one landowner is a real estate company with holdings North East of Elgin town (10.3 square kilometres). The area is largely covered by coniferous forest along the coast. Details of the next two largest landowners are not traceable. They own land to the North (10.1 square kilometres) and to the East (2.6 square kilometres) of Lhanbryde village which lies 4 miles to the East of Elgin town. Land coverage is a mix of coniferous forest and arable. The seventh largest landowner also owns land (2.1 square kilometres) close to the settlement boundary of Lhanbryde village, but to the South East. The fourth largest landowner can be identified as a farming company (2.6 square kilometres) – between Elgin and Lossiemouth; and the fifth largest a real estate company (2.3 square kilometres) – North East of Elgin. Land coverage is a mix of arable/pastures/moors and heathland.

In contrast to other the other two local housing market areas, a higher proportion of these titles are in close proximity to existing settlements and/or roads.

Forres – landownership concentrations map



Filtered titles: 104 | Filtered land area: 126 Sq. KM.

The top four landowners are all energy companies. The land (77.5 square kilometres) is located far from existing settlements and coverage includes wind farms – not suitable for residential development. The fifth largest landowner owns a considerable amount of land (6.1 square kilometres) close to existing settlements (between Forres town, Kinloss village and Findhorn village). The seventh largest landowner also owns a considerable amount of land (4.3 square kilometres) in this area. The other top ten landownerships are far from existing settlements so may not be suitable for residential development. Of the remaining ownerships, there is land to the North West of Forres town largely covered by coniferous forest. Additionally, there are sizeable land parcels West of Forres town near the A940 and to the South East near the B9010 towards Elgin (land coverage includes arable land, pastures and coniferous forest).

9 Conclusions and recommendations

Land Banking

i. Post-planning development pipelines

Land banking of *permissioned* land does not appear to be a problem for housing supply in Scotland. The permissioned land bank is relatively small and can be considered commercially justifiable on the basis of 'reasonable' construction times, contingency allowance and anticipated growth in supply.

Since there is no evidence of banking of permissioned land in a profiteering sense, any plans for a tax (or similar policy instruments) on permissioned land could be counter-productive.

ii. Local factors

There is considerable variation in permissioned land banks by local authority area. The variation is largely explainable by average site sizes and planning growth in house building. Brownfield development is also likely a factor.

The variation confirms that any 'blanket' national policy approach to increasing housing supply could be inappropriate and even risky.

iii. Large sites

Large sites are associated with longer build-out times and this is as true in Scotland as it is in England, due to market absorption constraints. Absorption constraints provide some justification for higher land banks. But more fundamentally, commercial housebuilders are set up in a way that preserves rather than reduces prices and hence housing affordability. They are unlikely, on their own, to deliver a step-change in housing affordability.

The Letwin Review (2018) highlighted the importance of a diversity of housing products on very large sites to address absorption constraints and increase build-out rates, and described possible policy measures to achieve this. Affordable housing in the mix would also support diversity and pace of delivery, as would private rented housing.

iv. Pre-planning development pipelines

Exploratory analysis for one local authority area highlights the potential for land constraints on housing supply and risks associated with highly concentrated land ownership. The analysis is only indicative but suggests the need for further research to shed light on the question of land banking of raw land and any implications for housing supply. Raw land is a fundamental factor of production in the construction of new homes yet there are few national sources of data on land use and land use change.

Further research is recommended to investigate pre-planning development pipelines, building on the exploratory case study for Moray in this report. The Scottish Government should consider a Cadastre covering all land in Scotland. Or, at least, collation of existing data sources and complementary new data collection, to produce statistics on land use including the amount of land with potential for residential development.

Further Research and Data Collection

v. Landownership

Registers of Scotland (ROS) data has potential to enhance understanding of national and local landownership.

If all landownership data was recorded in the Land Register of Scotland and title data transferred from the Register of Sasines this would help with research into landownership and productive use of land.

vi. Land availability

Housing Land Audits are an essential piece of evidence but their accessibility could be improved.

Coherent data, collected and published on a consistent basis would help to improve the national evidence base. A standard framework could be issued by the Scottish Government. More accessible statistics, ideally national statistics down to the local authority level, would enable greater scrutiny of housing land audits, helping to improve their quality and usefulness in local planning and policy-making contexts.

vii. Housing supply data

There are differences in the data between council estimates and Scottish Government housing statistics for housing completions. Scottish Government statistics provide a robust measure of technical completions while local authority figures do not measure technical completion and may, for example, consider whether a unit is occupied.

Analysis of land banking and local monitoring and evaluation of land requirements would benefit from a standardised and consistent approach to recorded housing completions. An agreed definition will be important for monitoring national and regional targets to be set by the forthcoming National Planning Framework 4.

viii. Housing affordability

The Scottish Government does not publish a suite of affordability indicators, such as median or lower quartile house prices to earnings, down to local authority or local housing market area.

Whilst relevant data is made available to Scottish local authorities, included in the HDNA data pack, a wider range of metrics could be added. Such measures could be published as official statistics so they are available to other public bodies, agencies and companies, including the research community.

The Scottish Government or Office for National Statistics should consider publishing official statistics covering housing affordability, ideally down to local authority and LHMA level.

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Annexes

10.1 Annex 1 – Current Local Housing Targets

Local Authority	Covered by	Plan Period	Plan housing supply target
Aberdeen City Council	SDP 2018	2020-32	1,100
Aberdeenshire Council			1,100
Angus	SDP 2017 'Tayplan'	2016-36	310
Dundee			480
North Fife			295
Perth & Kinross			846
City of Edinburgh	SDP 2016 'Sesplan'	2018-30	2,420
East Lothian			519
Fife (Southern half)			867
Midlothian			534
Scottish Borders			348
West Lothian			633
East Dunbartonshire	SDP 2017 'Clydeplan'	2012-29	133
East Renfrewshire			223
Glasgow City			2,503
Inverclyde			259
North Lanarkshire			1,060
Renfrewshire			580
South Lanarkshire			953
West Dunbartonshire			230
Argyll & Bute	LHS 2016	2016-21	300
Clackmannanshire	LDP 2015	2015-25	270
Dumfries & Galloway	LDP 2019	2017-29	406
East Ayrshire	LDP 2017	2015-25	534
Falkirk	LDP 2020	2020-30	450
Highland	LHS 2017	2017-22	1,270
Moray	LDP 2020	2018-35	304
North Ayrshire	LDP 2019	2019-29	489
Orkney Isles	LDP 2017	2017-27	101
Shetland Isles	Out of date	NA	71
South Ayrshire	LHS 2017	2017-22	289
Stirling	LDP 2018	2015-27	461

Western Isles (Outer Hebrides)	LDP 2018	not given	92
Aggregate total			20,430*

**The above table does not include the housing targets of the national parks. It is not entirely clear (at the time of writing) whether these are separate from or included within the targets set by the local authorities listed above. Adding National Park housing targets has little impact on the c.20,000 total. Scotland has two national parks: Loch Lomond and The Trossachs National Park (annual target of 75 homes for the period 2017-2021⁶⁶); and the Cairngorms National Park (annual target of 67 for the period 2020-2039⁶⁷).*

10.2 Annex 2 – Programmed Completions (as per Local Housing Land Audits)

	2019/20	2020/21	2021/22	2022/23	2023/24	2019/20-2021/21 average	Source
Edinburgh	2,381	2,586	2,416	2,046	1,706	2,461	HLA (2018)
Perth & Kinross**	700	700	700	750	750	700	HLA (2018)
South Lanarkshire	Recent Housing Land Audit not found						
Moray	304	472	577	575	400	451	HLA (2019)
Western Isles	Recent Housing Land Audit not found						
Argyll & Bute	Recent Housing Land Audit not found						
South Ayrshire	398	596	685	750		560	HLA (2018)
Dundee	490	747	767	714	734	668	HLA (2019)
East Renfrewshire	232	430	475	403	384	379	HLA (2018)
Glasgow	3,544	5,363	4,563	4,454	2,914	4,490	HLA (2018)

***These are adjusted totals providing a realistic assessment of potential output taking account of market conditions.*

⁶⁶ Loch Lomond and The Trossachs National Park [Local Development Plan](#) 2017-2021

⁶⁷ Cairngorms National Park [Proposed Local Development Plan](#) 2020