

The 2022-2032 Affordable Housing Funding Requirement for London

Technical Report



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Working in partnership with the G15



This report has been produced in partnership with the G15 group of London's largest housing associations. It uses G15 data and was shaped through a working group with its members.

G15 members house one in ten Londoners and are the biggest providers of affordable homes in the capital. Together, they own or manage more than 600,000 homes and build more than 10,000 new homes each year.

Housing associations were set up to support people in housing need and this remains at the heart of everything G15 members do today. They are independent, charitable organisations and all the money they make is reinvested in building more affordable homes and delivering services for residents.

The G15's members are A2Dominion, Catalyst, Clarion, Hyde, L&Q, Metropolitan Thames Valley, Network Homes, Notting Hill Genesis, One Housing, Optivo, Peabody and Southern Housing Group.

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Summary

- 0.1 The Mayor's draft new London Plan has identified capacity for 65,000 net new homes a year in London¹. The draft new London Plan also includes a strategic target for 50 per cent of all new homes delivered across London to be genuinely affordable². This report summarises a technical analysis of the amount of public sector grant funding required to deliver 50 per cent of 65,000 homes a year as affordable.
- 0.2 In addition to meeting the need for housing in London, building 65,000 new homes each year, with half affordable, may help the economy to expand significantly. Previous analysis³ supported by the Mayor of London and the European Union established that building new homes brings a net economic benefit to the Exchequer, as dealing with the housing shortage overcomes a significant constraint on the capital's future economic growth.
- 0.3 The analysis has modelled the evolution of costs, revenues, and sales values until 2031/32, using the new draft London Plan evidence base and central Government data sources where possible. The parameters were developed by a working group comprised of senior experts involved in building thousands of London's new affordable homes every year.
- 0.4 The analysis predicts a widening gap between costs and revenues. Works costs are estimated to increase by 3.4 per cent per annum over the five years to 2023, while sales values are expected to only increase by 0.9 per cent a year until 2023. Social rents will reduce by 1 per cent annually until 2020 and are expected to subsequently increase by less than 3.5 per cent per annum.
- 0.5 After accounting for these cost and income trends, the model identifies average subsidy gaps (the amount needed to 'plug the gap' between costs and income) of £284,000 per social rent home and £32,000 per shared ownership home over the 2022/23 to 2031/32 period. These subsidy gaps can be plugged through a combination of in-kind financial contributions on private-led developments ('Section 106'), 'cross-subsidy' generated from the sale of market sale homes built by affordable housing providers, and Government grant.
- 0.6 The new draft London Plan identifies capacity for 65,000 new homes a year, 50 per cent of which should be affordable, and the 2017 Strategic Housing Market

¹ GLA, Draft New London Plan, Chapter 4: Housing

https://www.london.gov.uk/sites/default/files/draft_london_plan_chapter_4.pdf

² Ibid.

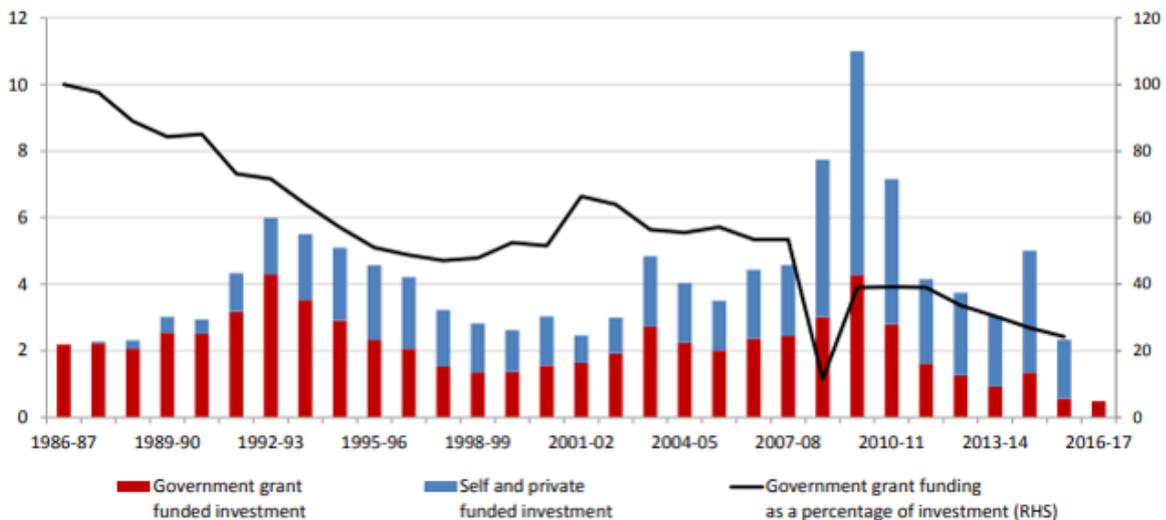
³ Greenwood Strategic Advisors, Mind the gap: Funding and financing city investments in the 21st century, 2018 <https://www.greenwood-ag.com/files/MindTheGap-FullReport.pdf>

Assessment⁴ identified a high level of need for social rent homes (72 per cent of all affordable homes) in London. The central scenario in the model therefore comprises an Affordable Homes Programme of 325,000 new affordable homes (32,500 a year) running from 2022/23 until 2031/32, with a split of 70 per cent social rent, 20 per cent shared ownership, and 10 per cent intermediate rent.

- 0.7 The central scenario contrasts with London's 2016-22 Affordable Homes Programme, which is set to deliver around 16,600 affordable homes per year on average, with the tenure split weighted more heavily towards shared ownership due to restrictions on how funding can be spent imposed by the national Government.
- 0.8 The subsidy gap between the cost of building 325,000 affordable homes, and what can be borrowed against and realised from the income streams of those homes, is £74.5 billion over the ten-year period. This is an average of £7.5 billion a year.
- 0.9 Assumptions adopted for the purposes of this research suggest that 9,600 affordable homes could be supported by private developers each year, equivalent to a financial contribution of £2.3 billion a year. This leaves a subsidy gap of £5.2 billion a year to be filled from other sources.
- 0.10 Affordable housing providers (both housing associations and councils) are expected to build an average of 5,700 market sale homes a year, reinvesting the profits into new affordable homes. This market sale delivery generates 'cross subsidy' of an average of £0.3 billion a year, with the ups and downs of the housing market leading to significant income variability across the new programme period.
- 0.11 The grant required to deliver a new affordable homes programme of 22,750 social rent homes, 6,500 shared ownership homes and 3,250 intermediate rent homes is therefore estimated to be £4.9 billion per year (nominal). This is equivalent to grant covering 48 per cent of the costs of non- Section 106 affordable homes, a figure which is at the lower end of the typical range of grant rates prior to 2008 (see Figure 1 below).

⁴ GLA, Strategic Housing Market Assessment (SHMA) 2017, 2017
https://www.london.gov.uk/sites/default/files/london_shma_2017.pdf

Figure 1: Housing provider gross investment by source of finance (£ billions, 2017-18 prices) and grant funded investment share of investment in England (Capital Economics/Shelter, 2019)



- 0.12 This level of grant is equivalent to around seven times what London currently receives. The significant increase is primarily due to the larger size of the new programme, the new programme's focus on social rented housing, and expected cost inflation. The analysis also demonstrates that a larger programme would lead available cross-subsidy to be spread across three times more rented affordable homes than under the 2016-22 Affordable Homes Programme. The analysis also demonstrates that even when costs and revenues increase at the same rate, grant must also increase in cash terms.
- 0.13 The calculations underpinning the central scenario have been subjected to sensitivity analysis, testing the impact of changes in key parameters. For instance, the grant requirement would be significantly higher if the predicted increase in affordable housing delivery on private-led developments does not materialise. This demonstrates how strong planning policies relating to affordable housing can serve to reduce the cost to the Exchequer of expanding affordable housing supply.
- 0.14 The analysis also explores different programme scenarios that have lower subsidy requirements, such as through delivering fewer than 32,500 affordable homes or tenure mixes that are not consistent with London's needs. While all these options can reduce the subsidy gap, in every scenario the grant requirement remains at least several multiples higher than the £690 million per annum London currently receives. Even repeating the 2016-22 Affordable Homes Programme after 2022 would entail grant increasing to around £1 billion per annum.
- 0.15 In conclusion, the analysis supports the basic and inescapable economic logic of funding social rent homes in London. Doing so requires subsidy, and due to past and forecast cost inflation the level of subsidy per home needs to be far greater in cash terms than even a decade ago.

Introduction

- 1.1 The Mayor of London's new London Housing Strategy (LHS) calls for 'a substantial and sustained increase in the supply of affordable homes through greater, more certain, and devolved investment from Government' (Proposal 4.2B). It also commits to work with housing associations, councils, investors, and Government to increase the level of investment in genuinely affordable homes.
- 1.2 A working group of senior housing provider staff and Greater London Authority (GLA) officers was convened in September 2018, to establish the amount of affordable housing funding that affordable housing providers (both housing associations and councils) need to meet the targets included in the draft new London Plan⁵. The working group drew on experience across a range of functions involved in building new affordable housing, including development, strategy, and finance.
- 1.3 The working group met five times between September 2018 and January 2019, and it included representatives from the G15 and L8 housing associations:
 - Rachael Dennis, Chief Operating Officer, Catalyst
 - Charles Glover-Short, Head of Public Affairs and Corporate Research, Optivo
 - Kerry Heath, Development Director, Hexagon
 - Fred Keegan, Director of New Business and Partnerships, One Housing
 - Dick Mortimer, Development Director, Peabody
 - Steve Moseley, Group Director of Governance, Strategy and Communications, London and Quadrant
 - Tom Paul, Director of Treasury and Commercial, Optivo
- 1.4 The working group were supported by GLA officers and a consultant from Beacon Partnership LLP.
- 1.5 The working group meetings were supplemented by a roundtable meeting with London council representatives and meetings with representatives of the small and medium sized housing association sectors.
- 1.6 The principal output from this work is an adjustable, multi-scenario funding model. This model is the focus of this technical report.

⁵ GLA, Draft New London Plan, Chapter 4: Housing
https://www.london.gov.uk/sites/default/files/draft_london_plan_chapter_4.pdf

Research Questions

2.1 The working group was tasked with answering six primary research questions:

- i) How many homes (private and affordable) does London require between 2022/23 and 2031/32⁶?
- ii) What should the tenure split between affordable housing tenures be?
- iii) How many of the affordable homes could be funded through planning obligations from private developers?
- iv) Over the medium-term, what 'cross-subsidy' can we expect affordable housing providers to contribute to building affordable homes?
- v) How much capital grant would be required to sustainably fund affordable housing at the scale required?
- vi) What additionality could a longer-term funding settlement bring to affordable housing delivery?

2.2 Answers to the first four questions provide key inputs to the model, covering the themes of planning obligations, cross-subsidy, and tenure. The answer to the fifth question is the primary output from the model. The sixth question is considered separately to the analytical model, with evidence presented in the final section 'Delivering a new Affordable Homes Programme'.

⁶ This period was chosen to reflect the likely start date of a new affordable housing programme, as the 2016-22 Affordable Homes Programme ends in March 2022.

Model framework

Model elements

3.1 There are three key elements to the model:

I. Model architecture

The relationships between the various parameters and variables, as discussed in this section.

II. Parameters

The values involved in the calculations, grounded in evidence from current policy and practice and subject to sensitivity analysis.

III. Policy variables

The key adjustable variables (number of homes, tenure of homes etc.) that comprise the central and variant scenarios. These variables are not based in evidence of what currently happens, but rather what could or should happen in the future.

3.2 Elements II and III will be discussed in the following sections.

Model architecture

3.3 The basic equation used to determine how much public capital grant is required to fund new affordable housing construction is:

$$\begin{aligned} & \text{'Costs of new home' - 'shared ownership sales income'} \\ & \quad - \text{'borrowing against future rental revenues'} - \text{'Section 106 income'} \\ & \quad - \text{'Cross subsidy'} = \text{Subsidy gap (capital grant)} \end{aligned}$$

3.4 The working group adapted two proprietary models designed by Beacon Partnership LLP to model a ten-year programme of 325,000 new affordable home starts between 2022/23 and 2031/32. These were:

- a base development model for each year of the programme, covering costs and revenues associated with housing development (inflated annually); and
- a consolidation model, providing the financial metrics of an aggregated 10-year programme.

3.5 The base development models cover the key costs (land, works, and on-costs) and the key funding sources (future rental revenue, staircasing income, cross-subsidy). All costs and revenues are expressed in nominal terms.

- 3.6 Each base development model calculates the amount of grant required to bridge the gap between these costs and funding sources, bringing the net present value (NPV) in each programme year to zero. This ensures the programme is viable at an aggregate level.
- 3.7 The cost and revenue outputs from the 10 base development models are also aggregated in the consolidation model to give a 10-year programme-level summary. This provides an overview of the programme cashflow, revealing how much the programme calls on debt security each year. Short term deficits can appear due to differences in timing between expending costs and receiving income.

Difference between funding and financing

- 3.8 There is an important distinction to be made between funding and financing. While much of the funding for a programme may come from rental revenue and sales receipts, these are future resources. Therefore, to cover capital costs in the present, finance must be secured against these future funding streams. This borrowed finance typically comes from bank loans or from the debt capital markets.
- 3.9 Revenues are expressed in present values. The assumption is that before starting construction on homes, providers will be able to borrow 100 per cent of the present value of future revenue streams. This assumption may overestimate the amount of borrowing that affordable housing providers can secure against future revenue streams, as some of the rental revenues may be required to provide debt security and interest cover (in addition to that provided from existing surpluses and revenues). For explanations of these and other technical terms see the Glossary.

What homes are included

- 3.10 Both affordable homes funded by capital grant and homes supported by planning obligations secured via agreements under Section 106 of the 1990 Town and Country Planning Act ('Section 106 homes') are included in the model⁷. This ensures that all homes are subject to the same parameters and that all output numbers are founded in the same evidence.
- 3.11 In the model, private developers (or landowners) are assumed to cover the full cost of developing Section 106 homes. Affordable housing providers then purchase these Section 106 homes at a value equivalent to the amount they can borrow against the homes' future income streams (future rental revenue, plus sales receipts in the case of shared ownership). The model assumes no other subsidy is invested in Section 106 homes, either from affordable housing providers or from the public sector.

⁷ Ministry for Housing, Communities and Local Government (MHCLG), The Incidence, Value and Delivery of Planning Obligations and Community Infrastructure Levy in England in 2016-17, 2018
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/685301/Section_106_and_CIL_research_report.pdf

Interaction between market homes and affordable homes

- 3.12 Market housing delivery is conditional on both land availability and levels of effective demand. The 2017 Strategic Housing Land Availability Assessment (2017 SHLAA)⁸ estimated that London has capacity for 65,000 new homes a year, a figure which has been identified in the new draft London Plan. Stretched affordability (with house prices 12.4 times individual average earnings⁹ and loan-to-income ratios already at four¹⁰), increased Stamp Duty taxation for investors, and the planned end of the Help to Buy in 2023 are all expected to limit effective demand, given current price levels and incomes¹¹.
- 3.13 Evidence on the relationship between the new supply of affordable homes and market homes is mixed. While Government models commonly assume a crowding out effect, other evidence presented by the UK Collaborative Centre for Housing Evidence¹², the Letwin Review¹³ and Savills¹⁴ all suggest that increased affordable housing delivery in fact supports market sale delivery.
- 3.14 For the purposes of this research we assume no crowding in or out of market homes by affordable homes. The demand for social rented homes is assumed to be almost entirely independent of the demand for market housing, given the very large difference in costs between the two tenures in London. While in theory some potential homebuyers may also be able access social or intermediate rented housing, most people indicate a preference for homeownership if they can afford it¹⁵.
- 3.15 Affordable home ownership supply is in theory more likely than affordable rented homes to crowd out market homes. However, there is no data on this effect and in any case, accounting for additional crowding out of market homes in this research would only be necessary where shared ownership delivery were to be increased above current programme levels. This is not the case in the central scenario (see 5.9 below).
- 3.16 Over the last three years, net market housing supply in London has been 32,545 homes a year on average¹⁶. Given the issues of effective demand outlined in 3.12,

⁸ GLA, Strategic Housing Land Availability Assessment 2017, 2017
https://www.london.gov.uk/sites/default/files/2017_london_strategic_housing_land_availability_assessment.pdf

⁹ Ibid.

¹⁰ GLA analysis of UK Finance, Mortgage lending data <https://www.ukfinance.org.uk/data-and-research>

¹¹ Savills, Residential property forecasts, 2018 <https://pdf.euro.savills.co.uk/uk/residential---other/report---residential-property-forecasts---autumn-2018.pdf>

¹² Geoff Meen, Policy approaches for improving affordability, 2018
<https://housingevidence.ac.uk/publications/policy-approaches-for-improving-affordability/>

¹³ The Letwin Review, Independent review of build out: final report, 2018
<https://www.gov.uk/government/publications/independent-review-of-build-out-final-report>

¹⁴ Savills, The additionality of affordable housing, 2013

¹⁵ MHCLG, English Housing Survey 2015/16: Future home owners, 2016
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/627151/Future_home_owners_full_report.pdf

¹⁶ GLA, London Plan Annual Monitoring Report 14 2016/17, 2018
https://www.london.gov.uk/sites/default/files/amr_14_final_20180927.pdf

this level of delivery is assumed to be maintained in all scenarios presented. These market homes are built by both private developers and affordable housing providers.

Key parameters and assumptions

- 4.1 The base development models include a wide range of parameters. The parameters that the results are most sensitive to – i.e. the parameters that have a noticeable effect on results if changed – are discussed in the following section. A comprehensive list is provided in Appendix 1. The parameters do not constitute Mayoral policy.
- 4.2 Parameters are based on data from the draft new London Plan and its evidence base wherever possible. This evidence has been subject to statutory examination by an independent panel of planning inspectors during the 2019 Examination in Public. Central government data sources are also utilised where they are available. Industry data and the typical appraisal assumptions of the working group and London affordable housing providers are used where official data sources are not available.

Works costs

- 4.3 The majority of expenditure during the development phase for new homes is on works costs. These include labour, capital equipment, and materials. All works costs assumptions in the model are drawn from estimates in the London Plan Viability Study¹⁷.
- 4.4 In the Viability Study works costs are provided for four different building heights (1-3 storeys, 4-10 storeys, 11-20 storeys, and 21 storeys and above) and five different value areas (A-E, with A the most valuable and E the least). In the model, costs for Inner London are the unweighted average of the lowest three building heights in areas A and B, and works costs for Outer London boroughs are the unweighted average of the lowest three building heights in areas C, D, and E¹⁸. The higher costs associated with building heights of 21 storeys and above are excluded due to their relatively limited applicability to new residential development in London.
- 4.5 In line with the Viability Study, low cost rented homes are assumed to have 10 per cent lower works costs than market sale homes, and intermediate homes are assumed to have 5 per cent lower works costs. This is because, for instance, market sale homes are typically fitted out before sale whereas social housing is fitted out after a tenant moves in. Other elements, such as space standards, are the same for all tenures.

¹⁷ GLA, London Plan Viability Study 2017, Turner and Townsend estimates (benchmarked against BCIS) https://www.london.gov.uk/sites/default/files/london_plan_viability_study_dec_2017.pdf

¹⁸ GLA, London Plan Viability Study 2017, Turner and Townsend estimates (benchmarked against BCIS) https://www.london.gov.uk/sites/default/files/london_plan_viability_study_dec_2017.pdf

- 4.6 The model uses BCIS forecasts¹⁹ for national works cost inflation between 2018/19 and 2023/24 (the second year of the programme) with annualised works cost inflation of 3.8 per cent per annum predicted over this period. BCIS forecasts particularly high growth from 2021/22 onwards, with several factors (Brexit impacts on the availability of labour and materials, increasingly complex sites etc.) combining to increase the works costs per new affordable home²⁰.
- 4.7 In the absence of BCIS forecasts beyond 2023/24, works cost inflation is assumed to reduce back to the Bank of England's medium-term target Consumer Price Inflation (CPI) rate of 2 per cent from 2024/25 onwards. Given that some of the drivers of relatively high works costs inflation outlined in 4.7 are unlikely to disappear in the short-term, this assumption may underestimate works cost inflation during the latter part of the programme.

On-costs

- 4.8 On-costs include components such as demolition costs, landscaping costs, abnormal costs, professional fees, contractor profits, and sales fees. These are calculated as a percentage of works costs and then added to the works cost, a common approach taken in development appraisals. On-costs also include capitalised interest during the development period.
- 4.9 The following on-costs assumptions were used for each tenure:
- for social rent, on-costs are 16 per cent of acquisition and works costs;
 - for intermediate rent, on-costs are 17 per cent of acquisition and works costs;
 - for shared ownership, on-costs are 20 per cent of acquisition and works costs;
 - for market sale, on-costs are 24 per cent of acquisition and works costs.
- 4.10 These assumptions were agreed with the working group and cross-referenced with evidence from the Viability Study, which gave values for professional fees, external works, and other abnormal costs. On-costs vary by tenure; for instance, shared ownership and market sale entail higher on-costs due to the sale element of these homes.

Land costs

- 4.11 Land is one of the primary inputs in new affordable housing construction and is a significant cost component. The value of land varies depending on its location, its current or potential use, and its current ownership.

¹⁹ BCIS, All-in-tender price index, 2018 <https://www.rics.org/uk/news-insight/latest-news/news-opinion/bcis-forecasts-for-the-construction-sector/>

²⁰ Turner and Townsend, Quarter 3 2018 report, 2018 <https://www.turnerandtowntsend.com/en/insights/uk-market-intelligence-q3-2018-contractors-report-order-book-increases-but-brexit-uncertainty-prevails/> ; RICS, Brexit impacts on construction and real estate sector, 2018 <https://www.rics.org/uk/news-insight/latest-news/brexit/>

- 4.12 Land cost estimates were taken from Ministry of Housing, Communities and Local Government (MHCLG) data²¹. Adjustments were made to two Prime Inner London boroughs (City of London and Kensington and Chelsea) where the estimates provided were judged to be exceptionally high. They were instead manually assigned the same land value as Westminster.
- 4.13 The model assumes that 20 per cent of development land comes at nil cost. Analysis ahead of the 2016-22 Affordable Homes Programme estimated that up to 60,000 affordable homes would involve no land cost²². In this model, 76,400 homes (both affordable homes and affordable housing providers' market sale homes) are estimated to be built without entailing a land cost. This estimate balances the longer programme length with more limited public-sector land development opportunities, as councils report that they are now depleting their own land resources in response to a more favourable funding and policy environment (e.g. the Mayor's Building Council Homes for Londoners programme and the removal of Housing Revenue Account borrowing caps).
- 4.14 Ten per cent of development land outside Prime Inner London is modelled at industrial values (typically lower than residential values). This accounts for land acquired by affordable housing providers before residential hope value is attached to sites. This was agreed by the working group as a proxy for various methods through which affordable housing providers acquire land for less than residential value. The remaining development land is assumed to be acquired at residential values.
- 4.15 In the absence of robust data forecasting future land cost inflation, the working group based its assumptions on the residual land value method typically used by housing developers when valuing land. The method subtracts the costs of building new homes, including a profit margin, from expected sales income. The residual value is the amount that a developer or an affordable housing provider can justify paying for the land.
- 4.16 Given the model estimates that works costs will increase significantly faster than sales prices over the next five years (see 4.20 below), the residual land value method implies that developers cannot increase what they pay for land over the same period. The model therefore assumes zero per cent inflation in land costs between 2018 and 2022, broadly consistent with Savills Development Land Index data²³. This could either materialise as static land values or as declining land values in the short term followed by modest land value inflation in the early 2020s.

²¹ MHCLG, Land value estimates for policy appraisal 2017, 2018.

²² GLA, Affordable Homes Programme 2016-22 Assumed Development Costs, 2016

https://www.london.gov.uk/sites/default/files/homes_for_londoners_-_assumed_total_development_costs_2016.pdf ; GLA, Building Council Homes for Londoners 2016-22

Assumed Development Costs, 2018

https://www.london.gov.uk/sites/default/files/assumed_total_development_costs.pdf

²³ Savills, Development Land Index, 2018 <https://www.savills.co.uk/insight-and-opinion/research-consultancy/residential-indices.aspx#development-land>

4.17 From 2022/23 onwards, land costs are assumed to increase annually by 4 per cent, mirroring sales price inflation (see 4.22 below). During this period, the inflationary effects of higher demand for land to meet London's housing needs are expected to be moderated by the Mayor's stronger affordable housing policies, as higher affordable housing requirements are implemented in a way that is more likely to reduce residual land values.

Sales prices

4.18 Sales prices are the cash value of homes when sold on the open market. The sales prices used in this model vary by borough, and by bedroom size.

4.19 Sales prices were derived from MHCLG's Continuous Recording of Social Housing Lettings (CoRE) database²⁴. As shared ownership properties must be valued at full open market value by a RICS registered valuer²⁵, the sales prices for outright market sale properties in the model are the same as the full value of shared ownership properties. There were no shared ownership sales in the City of London in 2016/17, so it is given the same values as Westminster.

4.20 Savills, the global real estate consultancy, forecasts²⁶ house price inflation of 4.5 per cent between 2018 and 2022 inclusive, equivalent to 0.9 per cent per annum. This contrasts with house price inflation of 57 per cent over the five years 2012-2017, equivalent to 9.4 per cent per annum²⁷.

4.21 Forecasting house price growth beyond 2023 is fraught with difficulty, particularly given current macroeconomic uncertainty. Over the 10 years from 2008 to 2018, average annual house price growth was 4.9 per cent in London; however, market commentators suggest this significant house price growth is unlikely to return, due to stretched affordability and long-term macroeconomic trends²⁸. If this is the case, annual house price inflation may be significantly below 4.9 per cent a year from 2022/23 onwards.

4.22 The working group decided to take a relatively optimistic view by assuming that house prices will increase annually by 4 per cent between 2022 and 2032. This would signal a return to substantial annual price growth, around 1 percentage point below the average of the last decade due to higher levels of total supply.

Household incomes

²⁴ MHCLG, CoRE data for Shared Ownership sales in 2016/17, 2018

²⁵ MHCLG, Shared Ownership: Joint guidance for England, 2016

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/557219/Shared_Ownership_-_Joint_Guidance.pdf

²⁶ Savills, Residential market forecasts, 2018 <https://www.savills.co.uk/insight-and-opinion/research-consultancy/residential-market-forecasts.aspx>

²⁷ GLA analysis of ONS, UK House Price Index <https://www.gov.uk/government/collections/uk-house-price-index-reports>

²⁸ For example, Financial Times, Are house prices heading for a post-Brexit meltdown, 19 January 2019 <https://www.ft.com/content/54f5f390-19af-11e9-9e64-d150b3105d21>

- 4.23 The level of household incomes is an important parameter when calculating rents based on incomes, as is the case for intermediate rents in this model, which are set at a third of median gross household incomes. Note that household income and earnings are different; earnings can increase at a different rate than household incomes, as earnings growth only includes the income of individuals in work and does not account for trends in other sources of income (such as benefits). It also does not account for the number of earners per household.
- 4.24 Median household incomes are forecast to increase in line with the Office for Budget Responsibility's Budget 2018²⁹ estimates for earnings growth (2.9 per cent annualised growth per annum between 2018 and 2023). From 2024/25 onwards, incomes are estimated to increase with the Bank of England's medium-term target of CPI (2 per cent).

Social rents

- 4.25 Social rent levels are taken from MHCLG CoRE data³⁰ on rents for properties let for the first time.
- 4.26 The model assumes that social rent levels decrease between 2018 and 2020 by 1 per cent each year, in line with the rent reduction policy introduced through the Welfare Reform Act 2016. Social rents then increase by CPI + 1 per cent between 2020/21 and 2024/25 as per the five-year rent settlement announced in 2017³¹. From 2025/26 onwards, social rents are assumed to continue increasing by CPI + 1 per cent.

First tranche sales and staircasing receipts

- 4.27 Shared ownership homes are part-owned by housing providers and part-owned by households ('shared-owners'), with the shared-owner paying rent to the housing provider on the proportion of the property that they do not own. An initial proportion of the home is sold at the time of purchase (known as a 'first tranche sale'). In this model, the average first tranche sale is 25 per cent of the value of the property, a common minimum percentage offered in the market.
- 4.28 If shared-owners choose to, they can buy extra portions of the remaining home equity over time. This process is called 'staircasing' and generates additional sales receipts for housing providers. Evidence on staircasing is sparse, as noted by Savills³². Therefore, the key parameters on staircasing (the average year in which a shared-owner begins staircasing, the average amount staircased each year, the average final year of staircasing, and the average amount of equity ultimately owned

²⁹ Office for Budget Responsibility, Economic and Fiscal Outlook, 2018 <https://obr.uk/efo/economic-fiscal-outlook-october-2018/>

³⁰ MHCLG, CoRE data for Social Rent first lets in 2016/17, 2018

³¹ <https://www.gov.uk/government/news/2-billion-boost-for-affordable-housing-and-long-term-deal-for-social-rent>

³² Savills, Spotlight: Shared Ownership, 2016 <https://pdf.euro.savills.co.uk/uk/residential---other/spotlight-shared-ownership-2016.pdf>

by shared-owners after all staircasing has occurred) are based on typical assumptions employed by the working group when appraising schemes for their organisations (see Appendix 1).

Proportion of affordable housing on private-led schemes

- 4.29 The number of affordable homes that will be delivered through Section 106 from 2022/23 onwards is uncertain, as it depends on a range of factors such as Government policy and market conditions. In the past, it has also been driven by the size of development sites, with sites of 10 or fewer homes delivering just four per cent affordable housing on site in the last three years, and larger sites of over ten homes delivering significantly greater proportions³³.
- 4.30 Forecasting the yield from sites of different sizes is particularly difficult, as the Mayor's new draft London Plan is in the process of introducing policies that seek to increase future affordable housing contributions from small sites of 10 or fewer homes. This coincides with the continued use of Permitted Development Rights in London for conversions of office buildings into homes, often with no or minimal levels of affordable housing. 12,900 homes have been delivered through office to residential conversions in the last three years without contributing to affordable housing or infrastructure provision³⁴.
- 4.31 With insufficient evidence to establish the net effect of these and other factors, this analysis uses the best evidence available on current trends to estimate future delivery on small and larger sites.
- 4.32 For larger sites³⁵ under the Mayor's new Fast-Track approach to viability, private-led schemes generally can access the Fast-Track route if they provide 35 per cent affordable housing. While approval rates in recent years have been lower than this threshold³⁶, there is growing consensus that these higher affordable housing requirements are being factored into land values³⁷, and the percentage of affordable housing secured at planning committees has increased markedly in the last year³⁸. It is therefore assumed that 35 per cent will become the typical level of affordable delivery on larger, private-led sites by 2022/23.
- 4.33 Small sites of 10 or fewer homes delivered four per cent affordable housing on site over the last three years. This trend is assumed to continue in future. In practice we would expect this proportion (or equivalent offsite contributions) to be significantly higher due to new and currently untested policies being introduced in the new draft

³³ GLA analysis of London Development Database data <https://www.london.gov.uk/what-we-do/planning/london-plan/london-development-database>

³⁴ GLA analysis of MHCLG, Table 123: housing supply; net additional dwellings, component flows of, by local authority district, England 2012-13 to 2017-18 <https://www.gov.uk/government/statistical-data-sets/live-tables-on-net-supply-of-housing>

³⁵ 10 or more homes

³⁶ GLA, Housing in London 2018, 2018 <https://data.london.gov.uk/dataset/housing-london>

³⁷ Savills, Market in Minutes: UK Residential Development Land, 2018 https://www.savills.co.uk/research_articles/229130/240942-0

³⁸ Molior, Quarter 4 2018 Sales report, 2019 <https://www.moliorlondon.com/database/analysis/sales/>

London Plan. On the other hand, Permitted Development schemes with no affordable housing will continue to come forward on larger private-led sites, reducing the affordable housing secured despite the Mayor's new Fast-Track approach. This is expected to cancel out all or part of the positive impact of new Mayoral policy regarding affordable housing on small sites.

- 4.34 Applying the expected affordable proportions to the proportion of delivery expected on each site type, the average percentage of affordable housing on all private-led schemes therefore is estimated at 26.3 per cent over the new programme period. This is equivalent to 9,600 homes being supported by planning obligations on private-led schemes per annum, and if achieved would be a significant increase compared with current trends. For example, in 2015/16 the level of affordable housing in planning permissions was 13 per cent.
- 4.35 The overall increase in affordable housing delivery to 50 per cent envisaged in this analysis is expected to principally be achieved by a significant increase in housing association and council-led developments. These will typically contain a high level of affordable housing, and in some cases will be entirely affordable. Given the scale of increase in affordable supply being considered, the average percentage of affordable housing across all homes built will meet the Mayor's 50 per cent strategic target.
- 4.36 If the contribution made by Section 106 to new affordable housing delivery is less than has been estimated for the purposes of this research, the grant requirement would be larger than estimated, as fewer homes delivered through planning obligations means commensurately more homes will require Government grant funding.

Supported and specialist housing

- 4.37 Social housing is generally split into general needs housing (targeted at those households on councils' waiting lists), and supported and specialist housing that offers specific assistance to households that require it, for example due to disability, mobility, health or other reasons³⁹.
- 4.38 While supported and specialist housing generally requires greater levels of subsidy than general needs housing⁴⁰, due in part to the need to provide modifications to assist households, establishing the costs and values involved in developing these homes is difficult. This is primarily because delivery of supported and specialist housing is relatively small compared to that of general needs housing, and therefore costs can be significantly affected by outlier schemes with specific requirements.
- 4.39 There is also a lack of reliable data regarding how many supported and specialist homes should be delivered in the future, particularly at a regional level.

³⁹ National Housing Federation, What is supported housing?, 2019

<https://www.housing.org.uk/topics/supported-housing/what-is-supported-housing/>

⁴⁰ National Housing Federation, Supported housing: Understanding need and supply, 2016 http://s3-eu-west-1.amazonaws.com/pub.housing.org.uk/Supported_housing_understanding_needs_and_supply.pdf

4.40 Given these data limitations, this analysis assumes 100 per cent of homes are delivered as general needs. However, in practice, the Mayor would expect that some affordable homes will be developed as supported and specialist housing, to ensure that Londoners who need it are provided with support so that they can live independently.

The location of new affordable homes

4.41 The geographical split of new housing supply is important, as land costs vary substantially depending on where new homes are built. Housing supply in the model is split between boroughs as per the 10-year housing targets in the draft London Plan⁴¹, and it is assumed that all London boroughs deliver 50 per cent affordable housing. In practice, affordable housing delivery may vary between boroughs, as the London Plan does not set specific local affordable housing targets.

Bedroom size mix

4.42 The average number of bedrooms in new affordable homes commonly varies by tenure. Evidence on the size mix in affordable housing was taken from working group participants' experience of contemporary planning department requirements, and corroborated by evidence from MHCLG CoRE on social housing lettings and the GLA's historic affordable homes programme data.

4.43 It is assumed that market sale homes built by affordable housing providers are split equally between one and two bed homes. This is because currently, at a London-wide level, higher profit margins can be achieved through building smaller market sale homes. In practice, affordable housing providers will develop some market sale homes with three or more bedrooms, which could lead to lower rates of cross-subsidy being generated.

⁴¹ GLA, Draft New London Plan, Table 4.1 https://www.london.gov.uk/sites/default/files/draft_london_plan_-_showing_minor_suggested_changes_july_2018.pdf

Table 1: Percentage of homes by tenure and bedrooms

	Social rent	Intermediate rent	Shared ownership	Market sale
1 bedroom, 2 people	28.0%	28.0%	28.0%	50.0%
2 bedrooms, 3 people	11.0%	11.0%	11.0%	25.0%
2 bedrooms, 4 people	33.0%	33.0%	33.0%	25.0%
3 bedrooms, 4 people	10.5%	10.5%	14.0%	0.0%
3 bedrooms, 5 people	10.5%	10.5%	14.0%	0.0%
4 bedrooms, 6 people	7.0%	7.0%	0.0%	0.0%

Space standards and circulation space

- 4.44 The size of homes and communal areas such as stairwells (circulation space) also has a bearing on costs. The draft London Plan proposes minimum space standards for new dwellings⁴² and the model assumes these are applied to all new homes.
- 4.45 Based on typical assumptions made in development appraisals by their own organisations, the working group assessed that the average circulation space for a new development is equal to 15 per cent of the unit area, with some variation depending on typologies and building heights.

⁴² GLA, Draft New London Plan, Policy D4 <https://www.london.gov.uk/what-we-do/planning/london-plan/new-london-plan/download-draft-london-plan-0>

Interest rate

4.46 According to the Regulator of Social Housing's 2016 Global Accounts⁴³ the average organisational level cost of borrowing for housing providers was 4.9 per cent, a cost of borrowing still commonly faced by housing providers according to working group representatives. This figure is used in the model both as the interest rate payable on all outstanding debts and balances by housing providers, and the discount rate for any NPV calculations.

4.47 Current interest rates are very low by historic standards, even compared to a decade ago⁴⁴. Given this analysis covers the period between 2022/23 and 2031/32, it is possible that the average cost of borrowing faced by housing associations could be higher than 4.9 per cent during this period, particularly when accounting for any risk margin above this cost of debt. Conversely, councils are expected to build some of these homes and should be able to secure a lower cost of borrowing through Public Works Loan Board funding. The working group therefore opted to use 4.9 per cent to balance these two factors.

Cashflow period

4.48 Working group members used different cashflow periods when modelling schemes for their organisations, with 35 and 40 years the most common. This exercise uses 37 years, as an average between 35 and 40 years.

Market sale homes delivered by affordable housing providers

4.49 In addition to borrowing against future rental revenue streams, affordable housing providers also invest other funds to build new affordable homes. In London, the principle means of doing this is by selling homes on the open market, with the profits then reinvested in new affordable homes. This is often referred to as the 'cross-subsidy' model.

4.50 In recent years the cross-subsidy model has helped deliver affordable housing despite a sharp reduction in the level of Government funding for new affordable homes (from over 50 per cent of the cost of development before 2008 to 15-20 per cent presently⁴⁵). However, this cross-subsidy model is predicated on a buoyant housing market. With London's housing market now entering a phase of lower price

⁴³ Regulator of Social Housing, 2018 Global Accounts of private registered providers, 2018

<https://www.gov.uk/government/publications/2018-global-accounts-of-private-registered-providers>

⁴⁴ Bank of England, Official Bank Rate history, <https://www.bankofengland.co.uk/boeapps/database/Bank-Rate.asp>

⁴⁵ Capital Economics and Shelter, Increasing investments in social housing, 2019

https://england.shelter.org.uk/__data/assets/pdf_file/0007/1641175/Capital_Economics_Confidential_-_Final_report_-_25_October_2018.pdf ; Network Homes, Why aren't housing associations building more social rented homes?, 2019

https://www.networkhomes.org.uk/media/5904/20190111_whyhasarentbuildingmoresocialrentedhomes_final_v20doc.pdf

growth⁴⁶ and affordability stretched, achieving the same levels of profit on market sales in the future will be more difficult, as suggested by public statements recently made by several housing associations and private housebuilders⁴⁷.

- 4.51 Estimating available cross-subsidy is difficult, as it is affected by market conditions, government policy, organisational appetite, and risk tolerance. However, the working group decided to quantitatively estimate the number of market homes to be used to generate cross-subsidy, with profit margins for these homes calculated using the cost and value parameters outlined above, to ensure internal consistency when calculating the funding available to reinvest in new affordable housing.
- 4.52 According to G15 and Financial Forecast Returns data⁴⁸, over the remaining years of the 2016-22 Affordable Homes Programme, G15 members expect to build around 3,500 new market sale homes per annum over the next few years. This would be a record level of market sale delivery by affordable housing providers in London. This analysis therefore assumes that in the new programme all providers of new affordable homes employ the same supply ratios between affordable homes and market sale as the G15 currently do. This could be an overestimate if other actors such as smaller housing associations and councils build relatively fewer market sale homes than larger housing associations.
- 4.53 Current evidence suggests that London affordable housing providers are unlikely to further increase market sale delivery in the foreseeable future (see Figure 2 below). Therefore, this estimated peak delivery of market sale homes (5,700) is assumed to be the average benchmark for delivery for the full 10-year programme between 2022/23 and 2031/32, a period expected to span the peak and trough of a new housing market cycle. 5,700 homes could therefore be a significant overestimate of market sale delivery during the new programme, particularly as sustaining this level of market sale delivery is unprecedented. If in practice fewer market sale homes are built, housing providers will have lower levels of cross-subsidy to draw on to fund new affordable housing.

⁴⁶ GLA analysis of ONS, UK House Price Index <https://www.gov.uk/government/collections/uk-house-price-index-reports>

⁴⁷ Financial Times, Berkeley warns profits set to dip on lower London house prices, 20 June 2018 <https://www.ft.com/content/7b524d34-7452-11e8-aa31-31da4279a601>

⁴⁸ Regulator of Social Housing, Information required from registered providers, 2019 <https://www.gov.uk/guidance/information-required-from-registered-providers>

Central scenario

Supply

- 5.1 The Mayor's draft London Plan identifies capacity for 65,000 net new homes a year, of which 50 per cent should be affordable. This is based on the need identified in the 2017 Strategic Housing Market Assessment (2017 SHMA), and the capacity identified during the 2017 SHLAA. Approximately 11,600 large sites were assessed as part of the 2017 SHLAA exercise, the most comprehensive pan-London housing capacity assessment ever undertaken.
- 5.2 Increasing delivery of affordable housing to 32,500 homes per annum is important to meet the need identified in the 2017 SHMA. However, it is also necessary to deliver 65,000 homes overall.
- 5.3 In his 2018 update to the Chancellor on his independent review of Build Out Rates, Sir Oliver Letwin stated 'the fundamental driver of build out rates once detailed planning permission is granted for large sites appears to be the 'absorption rate'⁴⁹ (see Glossary). As outlined above (3.12) effective demand for market homes is not expected to increase due to stretched affordability. Greater affordable housing delivery is therefore necessary to increase the absorption of new housing supply and to de-risk sites involving both private and affordable homes. Attempts to increase total housing supply without simultaneously delivering greater numbers of affordable homes are unlikely to succeed, given the stark unaffordability of average London market sale homes (average price of £472,000⁵⁰) to average income London households (median income of £36,000 per annum⁵¹).
- 5.4 Private supply is 32,500 a year in the central scenario. As net market housing supply over the last three years in London has averaged at 32,545 homes a year, the central scenario therefore does not involve any increase from the current level of delivery of market homes, whether market sale or Build to Rent.
- 5.5 This new programme would be around double the size of the 2016-22 Affordable Homes Programme, which will start an average of 16,600 homes per annum.

⁴⁹ Sir Oliver Letwin, Letter to the Chancellor 9 March 2018, 2018

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/689430/Build_Out_Review_letter_to_Cx_and_Housing_SoS.pdf

⁵⁰ GLA analysis of ONS, UK House Price Index, 2019

⁵¹ GLA analysis of DWP, Households below average income 2016/17, 2018

Tenure split

- 5.6 Policy H7 of the new London Plan⁵² states that the following split of affordable products should be applied to residential development:
- a) a minimum of 30 per cent low cost rented homes, either London Affordable Rent or social rent, allocated according to need and for Londoners on low incomes;
 - b) a minimum of 30 per cent intermediate products which meet the definition of genuinely affordable housing, including London Living Rent and shared ownership;
 - c) the remaining 40 per cent to be determined by the borough as low cost rented homes or intermediate products based on identified need.
- 5.7 The central scenario has a 70:30 split between affordable housing tenures in favour of low cost rented homes, with 70 per cent of homes to be built at social rent, and 30 per cent for intermediate tenures. This implies that the full 40 per cent of homes determined by the borough based on need are stipulated as social rent in line with paragraph 4.7.2 of the draft new London Plan.
- 5.8 This ratio between affordable housing tenures is supported by the 2017 SHMA, which found that 72 per cent of affordable homes required between 2016 and 2041 should be for low cost rent, and 28 per cent should be intermediate. It is also supported by recent evidence from planning committees⁵³, with many London boroughs seeking to secure the entire 40 per cent of affordable housing at their discretion as low-cost rent.
- 5.9 The ratio of intermediate tenures is two thirds shared ownership (6,500) to one third intermediate rent (3,250) set at a third of gross median household incomes (around two thirds of median market rents⁵⁴). Shared ownership delivery under the 2016-22 Affordable Homes Programme is expected to average around 6,500 homes a year, and given it is meeting demand for the product, this level of delivery is assumed to continue. As the 2017 SHMA identified need for around 10,000 intermediate homes per annum, the additional intermediate housing delivery required is therefore expected to focus on the households identified in the 2017 SHMA that have little or no savings⁵⁵.

⁵² GLA, Draft New London Plan, Policy H7 <https://www.london.gov.uk/what-we-do/planning/london-plan/new-london-plan/draft-new-london-plan/chapter-4-housing/policy-h7-affordable-housing-tenure>

⁵³ Molior, Developer's Journal: Success at Planning Committee, 2019

⁵⁴ GLA, London Living Rent <https://www.london.gov.uk/what-we-do/housing-and-land/renting/london-living-rent>

⁵⁵ GLA, Strategic Housing Market Assessment (SHMA) 2017, 2017 https://www.london.gov.uk/sites/default/files/london_shma_2017.pdf

Grant-funded affordable homes

5.10 The resulting tenure breakdown of the affordable housing programme is as below (Table 2). 9,564 of these affordable homes are expected to be delivered through planning obligations and without grant funding. The remaining 22,936 homes per annum require grant funding.

Table 2: Breakdown of affordable housing units by tenure and grant funding (annualised)

Tenure	Annual	Of which, grant-funded
Social rent	22,750	16,055
Intermediate rent	3,250	2,294
Shared ownership	6,500	4,587
Total	32,500	22,936

Costs

5.11 The cost profile of the new affordable homes programme is below. Note that this means the total scheme costs provided include the full costs of providing Section 106 homes, a proportion of which will be covered by private developers.

Table 3: Breakdown of total scheme costs for 2022/23 to 2031/32 programme (£ billions, nominal)

Year	Land	Works	On Costs	Total scheme costs
2022/23	2.9	8.0	1.9	12.7
2023/24	2.9	8.4	1.9	13.3
2024/25	3.0	8.6	2.0	13.6
2025/26	3.2	8.7	2.0	13.9
2026/27	3.3	8.9	2.1	14.3
2027/28	3.4	9.1	2.1	14.6
2028/29	3.6	9.3	2.2	15.0
2029/30	3.7	9.5	2.3	15.4
2030/31	3.8	9.6	2.3	15.8
2031/32	4.0	9.8	2.4	16.2
Total	33.7	89.9	21.2	144.8
Annual average	3.4	9.0	2.1	14.5

5.12 Total scheme costs to deliver 325,000 affordable homes programme over the period are £144.8bn, or an average of £14.5bn per annum. The largest cost component is the cost of works (£89.9 billion, 62 per cent of total costs). 20 per cent of homes do not have a land cost attached (see 4.13). For the four fifths that do, land costs are 27 per cent of their total cost. This is consistent with development industry rules of thumb that land costs are typically between a quarter and a third of total scheme costs. Land costs increase as a proportion of total costs during the course of the new programme.

5.13 The average total scheme cost per affordable home is £444,000 over the programme period, increasing from £389,000 in Year 1 to £497,000 in Year 10. This average is not weighted by bedroom size or development type.

Shared ownership first-tranche sales

5.14 First-tranche sales of shared ownership properties generate an average income of £0.8bn per annum, upon completion and sale of shared ownership homes. This amount varies dependent on housing market conditions.

Borrowing against rental revenues and other income streams

5.15 Total borrowing against future rental revenues and other future income streams is estimated to be £62.2 billion, rising from £5.4 billion in Year 1 to £7.2 billion in Year 10.

Table 4: Private borrowing secured against revenues and other income (£ billions, nominal)

Year	Private Finance
2022/23	5.4
2023/24	5.5
2024/25	5.7
2025/26	5.9
2026/27	6.1
2027/28	6.3
2028/29	6.5
2029/30	6.7
2030/31	7.0
2031/32	7.2
Total	62.2
Annual average	6.2

5.16 Total borrowing against future rental revenues from affordable homes (in present value terms at the beginning of the new programme) combined with first tranche sales income (5.14) therefore totals £70.3 billion, or £7.0 billion per annum. This covers 49 per cent of the total cost of the new Affordable Homes Programme⁵⁶.

Financial metrics

5.17 To secure borrowing against future revenue streams, housing providers must be in strong financial health. Two measures of this strength monitored by lenders and the Regulator of Social Housing are 'interest cover' and 'gearing'. The metrics presented

⁵⁶ This cost includes both grant-funded and Section 106 homes.

below are based on working group participants' typical internal monitoring benchmarks.

Interest cover

- 5.18 Interest cover is the ratio of surpluses generated from new homes to the interest payments on the loans required to build them, and it measures the ease with which interest payments can be met. Interest cover below 100 per cent means surpluses cannot cover the interest payments. Housing providers typically target interest cover of at least 130 per cent, to give lenders confidence they can service debt.
- 5.19 For the new programme, interest cover would be below 130 per cent for 15 years after the programme begins (2022/23). This means providers' surpluses from existing stock and/or government intervention would be required in the short-to-medium term to service the debt incurred to construct the new affordable homes.
- 5.20 There would be a particularly high requirement for interest cover in the first 12 years of the programme. £12.7 billion of interest cover would be required over this period to ensure the new programme is deliverable (around £1 billion per annum). This demonstrates that providers would need to invest a proportion of their operating surpluses from the management of existing homes to cover short-to-medium interest cover requirements. Note that providers also have other calls on those surpluses e.g. quality improvements to existing stock.

Gearing

- 5.21 Gearing is the value of outstanding debt associated with the programme divided by the value of assets constructed. The higher the value of outstanding debt is relative to asset value, the higher the gearing ratio will be. This means there will be an increased requirement for other assets (existing homes already owned) to function as collateral when borrowing to fund new homes. Providers usually target an organisation-wide gearing ratio of 65 per cent to meet gearing covenants agreed with lenders; lenders do not want housing providers to get close to 100 per cent gearing as this would risk insolvency and default on debt repayment.
- 5.22 Gearing would be above the target level of 65 per cent for the first 27 years of the new programme, and 100 per cent or higher for the first 18 years. Note this calculation is only in reference to the assets being developed in the new programme, rather than for all assets held by organisations, and therefore a ratio of 100 per cent or higher does not imply organisational insolvency.
- 5.23 While the 2016-22 Affordable Homes Programme has a similar gearing trajectory, the scale of additional asset collateral for borrowing is significantly higher under this new programme, peaking at £45 billion in Year 9 (2031/32). For comparison, the call on additional assets under the 2016-22 Affordable Homes Programme is estimated to peak at £30 billion.

5.24 This indicates the delivery of the new programme is dependent on a significant increase in affordable housing providers' usage of their existing asset capacity (£15 billion more security). This may necessitate diversification of who builds new affordable homes, due to requirements for a larger aggregate asset base that can be used as debt security for additional borrowing.

The subsidy gap

5.25 The subsidy gap between the cost of building 325,000 affordable homes and what can be borrowed against future income streams is £74.5 billion over 10 years, or an average of £7.5 billion a year.

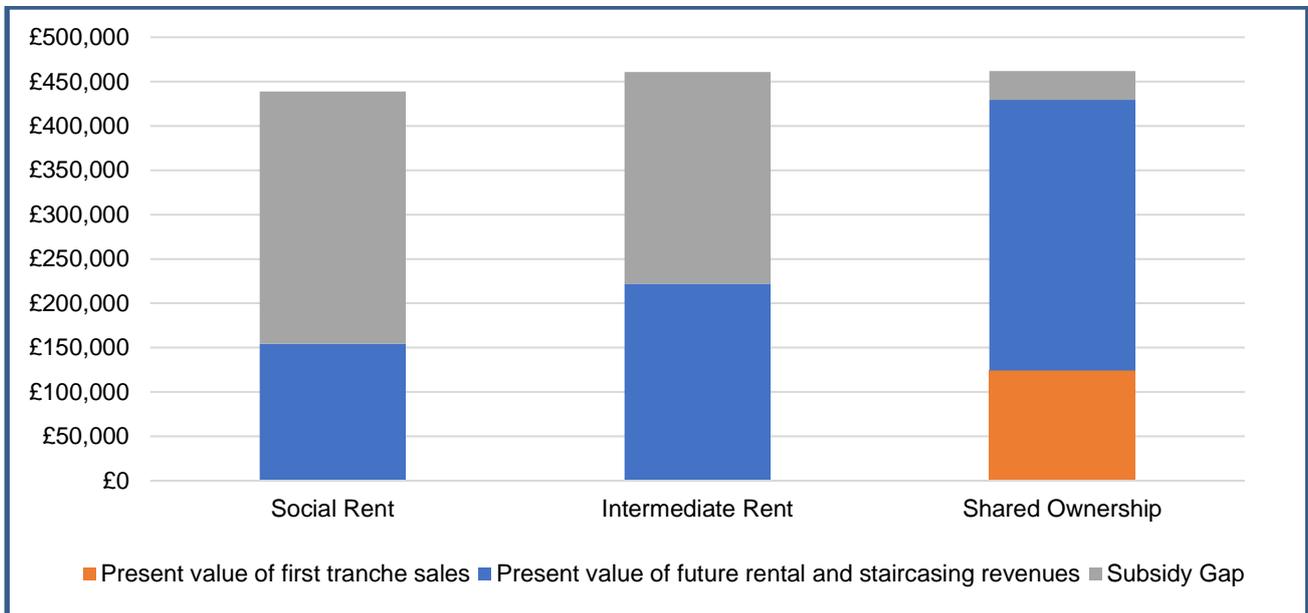
5.26 The gaps between costs and revenues for the three affordable tenures are:

- £284,000 for each social rent home;
- £234,000 for each intermediate rent home; and
- £32,000 for each shared ownership home.

5.27 As can be seen in Figure 2 below, social and intermediate rent homes receive rental revenues only, whereas shared ownership homes also generate revenue from staircasing receipts. First tranche sales to shared-owners also produce income for housing providers. Note that average total costs vary slightly between tenures due to different bedroom size mixes and on-costs.

5.28 The subsidy gap for intermediate rent homes is much larger than for shared ownership homes. This is because, even though intermediate rent and shared ownership are both 'intermediate' tenures, intermediate rents are substantially discounted to market (around two thirds of market rent), and these homes do not generate sales receipts through initial sales or staircasing. In practice, intermediate rent homes would be targeted at London households who are unlikely to gain access to social rent and for whom the deposit associated with accessing shared ownership would make it an unrealistic option.

Figure 2: Average subsidy gap (cash terms) 2022-2032, by tenure



5.29 In proportional terms, nearly two thirds of the costs of social rent homes must be covered by outside subsidy, while less than a tenth of the cost of shared ownership properties must be met through outside subsidy.

5.30 In understanding the cash terms subsidy gap revealed by this exercise, it is important to note the mathematics behind the subsidy gap for affordable rented homes. If costs and revenues both increase by 10 per cent, the subsidy gap does not remain the same, but also increases by 10 per cent. And if costs increase faster than revenues, the subsidy gap increases at an even faster rate (see Figure 3 below). This means that as time goes on, grant per unit rates must increase in cash terms unless cross-subsidy continually expands, or revenues increase far more quickly than costs.

Figure 3: Relationship between inflation of costs and increases in grant requirement

Base case

Costs = £400,000; Revenues = £150,000; Subsidy gap = £250,000

Scenario 1: Costs and revenues increase by 10 per cent

Costs = £440,000; Revenues = £165,000; Subsidy gap = £275,000 (10% increase)

Scenario 2: Costs only increase by 10 per cent

Costs = £440,000; Revenues = £150,000; Subsidy gap = £290,000 (16% increase)

Funding the subsidy gap

- 5.31 As noted in 0, the total subsidy gap is £74.5 billion over 10 years, or £7.5 billion per annum. There are three main ways in which this gap can be closed: cross-subsidy, Section 106 contributions, and Government grant funding.
- 5.32 Average gross sales income in the new programme is estimated at £3.6 billion a year, with £0.3 billion annually generated in profit. Market sale profits average £54,000 per market home across the period. This average is weighed down by the initial years of the programme, with stagnant house price growth and macroeconomic uncertainty expected to result in lower profits.
- 5.33 Section 106 contributions from private-led developments are expected to be valued at £22.9 billion over the 10 years, or £2.3 billion per annum. This subsidy is typically not paid in cash, but rather is an implicit subsidy from private developers and/or landowners receiving reduced revenues.
- 5.34 After accounting for these other sources, £48.6 billion of Government funding is required over 10 years to fully close the subsidy gap, starting at £4.4 billion in Year 1 and increasing to £5.0 billion in Year 10 (see Table 5 below). The average annual grant funding requirement is £4.9 billion, equivalent to 48 per cent of the total costs of the grant-funded affordable homes.

Table 5: Breakdown of funding figures for 2022/23 to 2031/32 programme (£ billions, nominal)

Year	Section 106 contributions	Sales income (net)	Grant requirement
2022/23	2.0	0.2	4.4
2023/24	2.2	0.1	4.8
2024/25	2.2	0.2	4.8
2025/26	2.2	0.2	4.9
2026/27	2.3	0.3	4.9
2027/28	2.3	0.3	4.9
2028/29	2.4	0.4	4.9
2029/30	2.4	0.4	5.0
2030/31	2.4	0.5	5.0
2031/32	2.5	0.5	5.0
Total	22.9	3.0	48.6
Annual average	2.3	0.3	4.9

Sensitivity analysis

6.1 Given the number of parameters involved in this modelling work, model outputs can vary if parameter values are changed. Therefore, testing the sensitivity of the main output (the grant per annum required) to plausible changes in key parameters is important. Six key parameters are the interest rate charged on negative balances, the cashflow period employed, the number of market sale homes built by affordable housing providers, market sale inflation post-2022, the value of Section 106 contributions, and future social rent increases. These are subjected to individual sensitivity analyses below.

Interest rate

6.2 In the central scenario, the cost of borrowing is estimated to be 4.9 per cent (see 4.47). If the cost of borrowing for housing providers were to be 50 basis points lower (4.4 per cent) this would increase the amount of debt housing providers could secure, thereby reducing the grant requirement from £4.9 billion per annum to £4.5 billion per annum. Conversely, if the cost of borrowing for housing providers were to be 50 basis points higher (5.4 per cent) this would increase the grant required to fund the programme from £4.9 billion per annum to £5.2 billion per annum.

Cashflow period

6.3 A cashflow period of 37 years was selected as a midpoint between the commonly employed discount periods of 35 and 40 years (4.48).

6.4 A longer discount period would imply that housing providers can secure borrowing today against a longer revenue stream, thereby reducing calls on other sources of funding, such as capital grant in the present. A shorter discount period implies the reverse. If a discount period of 40 years is used, the grant requirement reduces to £4.7 billion per annum. If a discount period of 35 years is used, the grant requirement increases to £5.0 billion per annum.

Housing provider market sale

6.5 Affordable housing providers are expected to build 5,700 market sale homes a year during the new programme (4.53). This level of delivery has not been achieved in one year to date; sustaining it over 10 years and a new market cycle is therefore unprecedented and highly ambitious.

6.6 If affordable housing providers delivered 50 per cent more market sale homes per annum (8,550), this would generate greater levels of cross-subsidy to reinvest in new affordable homes and reduce the grant requirement to £4.7 billion per year.

Conversely, if they delivered 50 per cent fewer market sale homes per annum (2,850), which is closer to their delivery over the last five years, lower levels of cross-subsidy would be generated, entailing a higher grant requirement of £5.0bn per year.

House price inflation

- 6.7 House price inflation post-2022 is assumed to average 4 per cent per annum. If house prices were to instead increase annually by 2 per cent (the Bank of England target for CPI), the profit made on market sale homes by housing providers would be lower, decreasing the amount of cross-subsidy available and making shared ownership less viable. With less cross-subsidy available, the other main source of subsidy (Government grant funding) would need to be increased to £5.2 billion a year (from £4.9 billion in the central scenario).
- 6.8 In the early to mid-2010s, house price inflation in London was higher than 4 per cent per annum⁵⁷. A return to this boom period seems improbable, given stretched affordability and other factors outlined above (3.12). However, if house prices increased by an average of 6 per cent during the 10-year programme, the grant requirement would be reduced to £4.4 billion per annum.

Fewer Section 106 homes

- 6.9 The central scenario predicts a significant step change in securing affordable housing through planning obligations, both in terms of the numbers of affordable homes secured, but also a far greater weighting towards low cost rent than is currently the case.
- 6.10 If, however, Section 106 continues only to deliver the number of homes it was estimated to provide in 2016/17 (6,900, with a quarter of them social rent), the grant requirement to deliver a 32,500 annual affordable homes programme (with 70 per cent at social rent) would be £5.8 billion, nearly one billion pounds more than in the central scenario.

Future social rent settlements

- 6.11 The central scenario assumes that social rent levels rise by CPI + 1 per cent a year in perpetuity following 2025. However, given affordability constraints for households who are expected to access affordable housing, increasing low cost rent by CPI + 1 per cent every year may not be feasible over the long-term. If instead, rents rose by CPI only from 2025 onwards, this would reduce future rental revenue streams, leading the grant requirement to increase to £5.3 billion per annum.

⁵⁷ GLA analysis of ONS, UK House Price Index, <https://www.gov.uk/government/collections/uk-house-price-index-reports>

Variants

7.1 As detailed in 3.1, alongside parameters the model includes several policy variables that can be adjusted to create variant scenarios, such as a different tenure mix between affordable homes or a smaller programme. This section considers four variants:

- Continuing the 2016-22 programme beyond March 2022;
- Combining a programme of 32,500 affordable homes a year with land value capture interventions;
- 32,500 affordable homes a year with a greater weighting towards intermediate tenures; and
- A smaller programme of 25,000 affordable homes per year.

Continuing the 2016-22 Affordable Homes Programme

7.2 Summary of scenario:

- 49,100 homes a year delivered across all tenures;
- 16,600 affordable homes delivered, of which 44 per cent are London Affordable Rent (see Glossary), 44 per cent are shared ownership and 12 per cent are London Living Rent (see Glossary);
- 5,700 market sale homes a year delivered by affordable housing providers; and
- 20 per cent of homes on private-led schemes are affordable homes delivered through Section 106.

7.3 To continue delivering the number and mix of homes from the 2016-22 Affordable Housing Programme (with no policy-induced changes to Section 106 delivery) for a decade beyond 2022 would require nearly one billion pounds per year (£0.94 billion) in grant funding, 37 per cent more than the £0.69 billion a year currently received. This increase is primarily due to predicted cost inflation between now and 2022.

Land value capture

7.4 Summary of scenario:

- 65,000 homes a year delivered across all tenures;
- 32,500 affordable homes delivered, of which 70 per cent are social rent, 20 per cent are shared ownership and 10 per cent are intermediate rent;
- 5,700 market sale homes a year delivered by affordable housing providers; and

- 26 per cent of homes on private-led schemes are affordable homes delivered through Section 106.

7.5 Land value capture is often cited as a method to either reduce the costs of delivering affordable housing, or conversely increase the revenues available to fund it⁵⁸. To understand the potential impact of a radical land value capture intervention, the percentage of land outside Prime Inner London assumed to be acquired at industrial values was increased from 10 per cent to 50 per cent. This proxies for the impact of radical land value capture, without specifying what that intervention should be.

7.6 This variant reduces the grant requirement by around a fifth to £3.9 billion per annum. While this suggests that there is scope to reduce grant requirements through significant national reform of land value capture, substantial grant investment is still required.

Greater weighting towards intermediate housing

7.7 Summary of scenario:

- 65,000 homes a year delivered across all tenures;
- 32,500 affordable homes delivered, of which 50 per cent are social rent, 40 per cent are shared ownership and 10 per cent are intermediate rent;
- 5,700 market sale homes a year delivered by affordable housing providers; and
- 26 per cent of homes on private-led schemes are affordable homes delivered through Section 106.

7.8 If instead of being weighted 70:30 in favour of social rent homes the programme was split equally between social rent homes and intermediate homes the grant requirement would reduce to £3.9 billion per annum. If all intermediate homes were delivered as shared ownership (making the programme 50 per cent social rent and 50 per cent shared ownership) this requirement would reduce further to £3.3bn per year. These programmes would be significantly less effective at meeting the need identified in the 2017 SHMA, and as per 3.15 may crowd out market delivery of homes for outright sale.

Smaller programme: 25,000 affordable homes a year

7.9 Summary of scenario:

- 57,000 homes a year delivered across all tenures;
- 25,000 affordable homes delivered, of which 70 per cent are social rent, 20 per cent are shared ownership and 10 per cent are intermediate rent;

⁵⁸ Housing, Communities and Local Government Select Committee, Land Value Capture, 2018
<https://www.parliament.uk/business/committees/committees-a-z/commons-select/housing-communities-and-local-government-committee/news/land-value-capture-report-published-17-19/>

- 5,700 market sale homes a year delivered by affordable housing providers;
and
- 26 per cent of homes on private-led schemes are affordable homes delivered through Section 106.

7.10 If instead of delivering 32,500 affordable homes a year, 25,000 affordable homes a year were built (with the 70:30 split in favour of social rent housing intact) this would entail a grant requirement of £3.2 billion per annum. This demonstrates the non-linear relationship between the size of the new programme and grant requirement, with increasing programme scale leading to cross-subsidy being spread across more homes, and therefore covering a lower proportion of the costs per home.

Delivering a new Affordable Homes Programme

8.1. The core task of the working group was to undertake a technical analysis to identify what capital grant settlement would be needed to enable the delivery of a much larger affordable housing programme. However, through the course of its discussions, the working group also discussed the benefits of a longer-term grant settlement and some of the wider issues that the Mayor and the Government would need to address to enable affordable housing providers to achieve such an increase in affordable housing delivery.

A longer-term settlement

8.2. The analytical model presented in the previous sections assumes a 10-year funding settlement. This reflects the consensus that emerged during working group discussions relating to the benefits of long-term certainty, which include:

- providing certainty for affordable housing providers when taking a position on large or complex sites, enabling faster build-out through tenure diversification;
- encouraging acquisition of pipeline sites for future programmes; and
- improving quality and contributing to greater control of costs through improved planning.

Large and complex sites

8.3. The 2017 Strategic Housing Land Availability Assessment⁵⁹ shows that larger sites of over 0.25 hectares have the capacity to deliver 40,000 new homes each year, equivalent to 61 per cent of the overall target for new homes. Some of this capacity is located on very large sites, such as those identified by Sir Oliver Letwin in his recent review. The working group noted that without longer-term certainty on funding it will be very difficult for even the largest housing associations to take positions on such sites.

8.4. A 10-year settlement would give confidence to developers of all sizes that multi-phase development plans will continue to be viable, regardless of housing market cycles or the potential for shorter-term economic cycles. This certainty applies equally on more complex sites, one example being multi-phase estate regeneration programmes, which typically last many years or even decades. Similarly, certainty is valuable when developing on public land, where there is often a need to re-provide existing operational buildings or services, which MHCLG's programme handbook

⁵⁹ GLA, Strategic Housing Land Availability Assessment 2017, 2017
https://www.london.gov.uk/sites/default/2017_london_strategic_housing_land_availability_assessment.pdf

states ‘can take time’⁶⁰. Providers invest today in expectation of grants and revenues in the future; if there is no certainty of that future, they are less likely to make those investments.

- 8.5. Some of these large and complex sites, in the absence of housing association or council appetite, could be taken forward by private sector developers. However, the working group noted that private sector developers are more likely to focus on a narrower range of tenures and provide lower levels of affordable housing, which in turn could suppress the pace of delivery. Sir Oliver Letwin’s review noted that in London, the demand for social rent and other affordable tenures is ‘near inexhaustible’⁶¹ and that the market for these homes is distinct to those for other tenures, meaning there is no crowding-out effect.

Acquisition of pipeline sites

- 8.6. Development of a site of any size can take several years, while funding programmes can last just four. The implication of this is that housing providers need to acquire sites for development pipelines which will be built out in future programmes – and potentially under very different funding regimes.
- 8.7. Following discussion with the working group, which includes a member of the L8 group of London’s medium sized housing associations, and wider consultation with the g320 group of London’s smaller housing associations, it was concluded that acquisition of pipeline sites is a specific issue for smaller and medium sized housing associations looking to develop. For these organisations, it can be very challenging to acquire strategic land banks for use in future programmes without certainty that sufficient grant will continue to be available. In comparison with the largest housing associations, financial capacity can be exhausted very quickly by a small number of land acquisitions, opening organisations up to much greater risk.

Quality and control of costs

- 8.8. The working group discussed the stop-start nature of affordable housing programmes, particularly those with fixed end dates for completions, and how this may have resulted in construction and handover of homes being rushed which in turn has caused quality issues. The Homes for Londoners board commissioned a sub-group to examine construction quality and paragraph 5.11 of the sub-group’s report covers this issue⁶². Longer-term certainty, as well as providing the opportunity to unlock additional homes, can protect the quality of those new homes.

⁶⁰ MHCLG, Public Land for Housing Programme, 2015-2020, 2018

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/734654/Public_Land_for_Housing_Programme_2015-20.pdf

⁶¹ The Letwin Review, Independent review of build out: final report, 2018

<https://www.gov.uk/government/publications/independent-review-of-build-out-final-report>

⁶² GLA, Homes for Londoners Board Construction Quality Sub-group Report, 2018

<https://www.london.gov.uk/moderngovmb/documents/s61112/06a%20per%20cent%20Construction%20per%20cent%20Quality%20per%20cent%20sub-group%20per%20cent%20report>

- 8.9. Related to this, longer-term funding certainty would also support a much greater move to precision manufacturing of homes, which is more efficient, faster, and will bring quality benefits due to production in factory-controlled conditions rather than on-site with potential changes in weather and climate. A report by Chair of the London Assembly Planning Committee, Nicky Gavron AM, found that lack of aggregation of demand was a key barrier to wider adoption of precision manufacturing and other off-site methods⁶³. Due to the lower labour requirements of precision manufacture, it will deliver significant cost savings over time if utilised at sufficient scale. Longer-term funding certainty for the housing sector could help to address this structural issue in the industry by supporting greater, aggregated demand from housing providers.
- 8.10. Without much greater use of precision manufacturing in housing construction, there will be significant challenges in labour availability and quality, as outlined in the Farmer Review of the UK construction industry labour model⁶⁴. These skills shortages could, in turn, lead to cost inflation. The analytical model and working group testimony indicated that we are already starting to see these effects, with high works cost inflation forecast over the next five years (4.3-4.7).

Other delivery implications

- 8.11. Three other issues, beyond the critical role of affordable housing grant, were raised by the working group in relation to the delivery of a new, much larger, Affordable Homes Programme. First, the group highlighted that there are upper limits on the financial capacity of affordable housing providers to ramp up development. Paragraphs 5.16-5.25 of this document outline the significant private borrowing which would be needed to finance development and explore how this is limited by constraints such as interest cover ratios and gearing covenants. Second, getting developable land into the hands of affordable housing developers, particularly in good locations and in unified ownership, remains a challenge. Finally, there are headwinds in the future supply of construction skills and materials, including the terms of Britain's exit from the European Union.
- 8.12. These factors and others make the case for avoiding a 'cliff edge' in affordable housing delivery, by smoothing the end of the current programme into the beginning of the next through transitional arrangements.

Financial capacity

- 8.13. Limits on the total amount of available finance will, in part, be addressed by involving a broader range of organisations in the development of London's affordable homes. Better access to the asset bases and balance sheets of organisations that aren't

⁶³ London Assembly, Designed, sealed, delivered: The contribution of offsite manufactured homes to solving London's housing crisis, 2017

https://www.london.gov.uk/sites/default/files/london_assembly_osm_report_0817.pdf

⁶⁴ The Farmer Review of the UK Construction Labour Model, Modernise or Die: Time to decide the industry's future, 2016 <http://www.constructionleadershipcouncil.co.uk/wp-content/uploads/2016/10/Farmer-Review.pdf>

currently developing at scale may ease the constraints of gearing covenants and interest cover. The Mayor has already made steps, through his Housing Strategy, to reduce overreliance on a relatively narrow range of development models, sites and types of homes. For example, the Building Council Homes for Londoners programme is aiming to kickstart council housebuilding after decades of stagnation.

- 8.14. However, testimony from the working group points to a role for other types of Government financial support to complement core grant funding. Between 2013-18 the Affordable Homes Guarantees Programme sat alongside the Affordable Homes Programmes, and enabled housing providers to borrow at a lower interest rate through loan guarantees. It is understood that the Government is currently exploring a new, £3bn programme, a helpful measure but not at the scale required to support this new programme. There may also be a role for sales guarantees, which can support housing providers to continue to generate cross-subsidy by guaranteeing a buyer for market sale homes. The need for such an intervention is enhanced by uncertainty in the housing market which may dent the confidence of housing providers and private developers alike to start new schemes.
- 8.15. A longer-term rent settlement will also have a positive impact on affordable housing delivery. New affordable homes are funded in part by future rental revenue streams, and financed according to the anticipated size of those revenue streams. Providing longer-term certainty on the rent setting formula can support improved forecasting and may boost providers' confidence to borrow to finance ambitious delivery programmes. This analysis assumes a rent settlement is agreed post-2025 that continues indexing rents by CPI +1 per cent. If a longer-term rent settlement at this level is not agreed, greater levels of grant will be required to viably fund a new programme.

Land

- 8.16. Feedback from the working group made clear that the availability of suitable sites in London increasingly presents a challenge to development. In part this relates to high land values in the city, which can make it challenging to develop sites with high levels of affordable homes. It also relates to fragmented land ownership patterns.
- 8.17. The Mayor's threshold approach to viability, introduced in 2016, has been shown to have been successful in enhancing the number of new affordable homes that developers deliver on site, through planning agreements. Expectations about the level of affordable housing that will be required on developments are also increasingly being priced into land values⁶⁵. The technical analysis set out in this report shows that affordable homes secured through the planning system deliver a direct return to the Exchequer, by supporting the construction of affordable homes that otherwise would need grant subsidy to be viable. Continued use of the planning system in this way will therefore be a pragmatic part of delivering any future Affordable Homes Programme.

⁶⁵ Savills, 'Market in Minutes: UK Residential Development Land', May 2018
https://www.savills.co.uk/research_articles/229130/240942-0

8.18. The working group felt that other steps should be taken to improve access to land for affordable housing providers. This should include reforming the way in which public land is made available, with a particular emphasis of its role in supporting new affordable homes. On privately owned sites, more effective land assembly and land value capture powers and additional resources for public authorities to step in to acquire sites would speed up development and ensure that the public receives more of the benefits associated with the uplift in land values resulting from residential development.

Construction skills and materials

8.19. The technical analysis already takes into account the impact of skills shortages in the homebuilding industry on costs. Works costs are forecast to rise steeply between 2018 and the start of the future programme in 2022/23. It wasn't however possible to demonstrate potential endogenous effects, where an expansion of the Mayor's Affordable Homes Programme to meet London's housing need could further increase competition for skilled labour, already in short supply, leading to additional cost inflation.

8.20. Steps have already been taken to address these challenges, including the launch of the Mayor's Construction Academy, and activity to support much greater use of precision manufacturing as discussed in paragraphs 8.9 and 8.10. The devolution of the adult education budget, effective from August 2019, may also present new opportunities. However, to fully address the challenges facing the construction workforce, the working group felt that London needed more control to develop a skills system tailored to the needs of London employers. In addition, reducing the unprecedented levels of uncertainty on immigration and citizens' rights post-Brexit would also have a beneficial impact in protecting the availability of skilled labour in London.

Transitional arrangements

8.21. The factors outlined above point to a case for smoothing the end of the current programme by implementing transitional arrangements. The current programme is very backloaded, with much higher targets in later years. Avoiding a 'cliff-edge' between programmes and seeking to make the increases in delivery sustainable would have a beneficial impact in helping organisations to plan and invest accordingly. This could:

- support the acquisition of sites, including large and complex sites;
- give councils and housing associations greater confidence to invest in greater capacity; mitigate risks around quality;
- and help plan for a move at scale to precision manufactured housing.

8.22. Transitional arrangements should therefore be agreed to support a smooth switch between the current and next programme.

Appendix: Detailed Parameters List

Category	Assumption	Value	Source
Management, Maintenance and Repairs Assumptions	Management Cost Inflation	2.9 per cent	Average of Working Group business model assumptions
Management, Maintenance and Repairs Assumptions	Maintenance Cost Inflation	2.9 per cent	Average of Working Group business model assumptions
Management, Maintenance and Repairs Assumptions	Sinking Fund for Major Repairs cost base per m2 (2018/19)	£2000	Average of Working Group business model assumptions
Management, Maintenance and Repairs Assumptions	Percentage of rebuild cost added to fund per annum	0.8 per cent from Year 6 onwards.	Average of Working Group business model assumptions
Management, Maintenance and Repairs Assumptions	Rebuild Cost Inflation	2.9 per cent	Average of Working Group business model assumptions
Management, Maintenance and Repairs Assumptions	Annual management costs per unit: Target Rent (2018/19)	£431	Average of Working Group business model assumptions
Management, Maintenance and Repairs Assumptions	Annual management costs per unit: Intermediate rent (2018/19)	£475	Average of Working Group business model assumptions
Management, Maintenance and Repairs Assumptions	Annual management costs per unit: Shared ownership (2018/19)	£96	Average of Working Group business model assumptions

Category	Assumption	Value	Source
Management, Maintenance and Repairs	Annual maintenance costs per unit: All tenures excluding Shared ownership (2018/19)	£808	Average of Working Group business model assumptions
Management, Maintenance and Repairs	Void and Bad debt rate	3.6 per cent social rent; 3.8 per cent London Living Rent; 0.1 per cent Shared ownership	Average of Working Group business model assumptions
Management, Maintenance and Repairs	Average ratio between of net rent to gross rent on Social rent properties	60 per cent	Output of working group assumptions
Financing	Capitalised Interest on negative balances	4.9 per cent	Regulator of Social Housing, Sector Risk Profile
Financing	Discount Period	37 years	Average of Working Group business model assumptions
Works Costs	Average works cost across boroughs and building heights (2017/18)	£2860 per square metre	GLA, London Plan Viability Study
Works Costs	Circulation Space (Net to Gross ratio)	Flats: 85 per cent; Duplexes: 92 per cent	Average of Working Group business model assumptions
On-Costs	On-Costs as a percentage of acquisition and works costs (to be	16 per cent	Average of Working Group business model assumptions

Category	Assumption	Value	Source
	added to acquisition and works costs) for social rent		
On-Costs	On-Costs as a percentage of acquisition and works costs (to be added to acquisition and works costs) for intermediate rent	17 per cent	Average of Working Group business model assumptions
On-Costs	On-Costs as a percentage of acquisition and works costs (to be added to acquisition and works costs) for shared ownership	20 per cent	Average of Working Group business model assumptions
On-Costs	On-Costs as a percentage of acquisition and works costs (to be added to acquisition and works costs) for market sale	24 per cent	Average of Working Group business model assumptions
Land costs	Land value	£1,360 per square metre	MHCLG, Policy estimates 2017
Land costs	Homes built with no land cost	20 per cent	GLA 2016-21 Affordable Homes Programme Assumed Total Development Costs evidence

Category	Assumption	Value	Source
			base; Working group
Land costs	Land use class	Prime Inner: 100 per cent at residential values; Outside Prime Inner: 90 per cent at residential values, 10 per cent at industrial values	MHCLG, Policy estimates 2017
Property sizes	Social rent and Intermediate property sizes	28 per cent 1 bed 2 person; 11 per cent 2 bed 3 person; 33 per cent 2 bed 4 person; 10.5 per cent 3 bed 4 person; 10.5 per cent 3 bed 5 person; 4 bed 6 person 7 per cent	Average of Working Group business model assumptions
Property sizes	Shared ownership property sizes	28 per cent 1 bed 2 person; 11 per cent 2 bed 3 person; 33 per cent 2 bed 4 person; 14 per cent 3 bed 4 person; 14 per cent 3 bed 5 person	Average of Working Group business model assumptions
Property sizes	Private Sale	50 per cent 1 bed 2 person; 25 per cent 2 bed 3 person; 25 per cent 2 bed 4 person	Working Group
Property sizes	1 beds 2 person	50sqm	GLA, New Draft London Plan

Category	Assumption	Value	Source
Property sizes	2 beds 3 person	61sqm	GLA, New Draft London Plan
Property sizes	2 beds 4 person	70sqm	GLA, New Draft London Plan
Property sizes	3 beds 4 person	74sqm	GLA, New Draft London Plan
Property sizes	3 beds 5 person	86sqm	GLA, New Draft London Plan
Property sizes	4 beds 6 person	107sqm	GLA, New Draft London Plan
Sales Values	Location of development	Development as per new Draft London Plan housing targets	GLA, Draft New London Plan
Sales Values	Open Market Value (2016/17) all borough average for 1 beds	£328,000	MHCLG, CoRE
Sales Values	Open Market Value (2016/17) all borough average for 2 beds	£409,000	MHCLG CoRE
Sales Values	Open Market Value (2016/17) all borough average for 3 beds	£475,000	MHCLG, CoRE
Sales Values	Open Market Value (2016/17) all borough average for 4 beds	£635,000	MHCLG CoRE
Sales Values	Number of market sale homes built by affordable housing providers	5,700	Regulator of Social Housing, Sector Risk Profile, and G15 internal data

Category	Assumption	Value	Source
Staircasing	First Tranche Sale	25 per cent of Open Market Value	Average of Working Group business model assumptions
Staircasing	Average first year of staircasing	Year 5	Average of Working Group business model assumptions
Staircasing	Average final year of staircasing	Year 26	Average of Working Group business model assumptions
Staircasing	Average staircasing per annum	2.9 per cent	Average of Working Group business model assumptions
Staircasing	Average total amount of staircasing	88.75 per cent of Open market value	Average of Working Group business model assumptions
Rents	Weekly social rents for 1 beds (2016/17)	£115.42	MHCLG, CoRE
Rents	Weekly social rents for 2 beds (2016/17)	£144.82	MHCLG CoRE
Rents	Weekly social rents for 3 beds (2016/17)	£156.48	MHCLG CoRE
Rents	Weekly social rents for 4 beds (2016/17)	£166.37	MHCLG CoRE
Rents	Weekly social rents for 5 beds (2016/17)	£173.82	MHCLG CoRE
Section 106	Percentage of affordable housing on private-led developments	26.3 per cent	GLA, London Development Database

Glossary

Affordable home ownership: A category of affordable housing to help those who would struggle to buy on the open market (predominantly would-be first-time buyers) to buy a home in full or part. Includes shared ownership.

Completions: A home is regarded as completed when it becomes ready for occupation or when a completion certificate is issued whether it is in fact occupied or not.

Development: The carrying out of building, engineering or other operations involving land, or the making of any material change in the use of any buildings or other land. In this document, 'Development' refers to activities which create new residential accommodation.

London Affordable Rent: A type of Affordable Rent home. Introduced by the Mayor, homes aimed at low income households, with rents based on social rent levels.

London Living Rent: A type of affordable home. Introduced by the Mayor, homes that offer Londoners on average incomes a below-market rent, enabling them to save for a deposit.

Planning Obligations: Negotiated agreements between planning authorities and developers under Section 106 of the Town and Country Planning Act 1990. They are focused on site specific mitigation of the impact of development and on the provision of affordable housing.

Section 106: See Planning Obligations.

Shared Ownership: A type of affordable home. Homes in which buyers can purchase a share and pay a regulated rent on the remaining, unsold share.

Social rent/social housing: A type of affordable home. Low cost rented homes provided to households whose needs are not met by the market, typically by councils and housing associations, with rents set within guidelines issued by the social housing regulator.

Tenure: The conditions under which land or property are held or occupied. Typically, London's residential housing sector is split into three tenures: social rented, private rented, and owner occupied.

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