MANDALA | Turner & Townsend

MAY 2026

CBRE

Accelerating Housing Delivery

Through Risk Capital Approaches

A national housing research study exploring the optimal deployment of risk capital resources and the econometric benefits

Executive summary

High costs and flat prices have made housebuilding increasingly unviable

+39%
Rise in **construction material costs** since 2021 driven by increase in cement and concrete

+8%
House price growth since 2022, squeezing developer margins to zero in many areas

-36%
New dwelling starts have fallen since their 2022 peak

Public ‘risk capital’ investment can close viability gaps and unlock housing

£8.5bn
Investment capital allocated to the National Housing Bank in Spending Review 2024

+94,000-104,000
Homes unlocked by investing in projects across England’s core city regions

+123,000-198,000
Homes unlocked by investing in a geography agnostic, ‘least effort, most homes’ approach across every local authority in England

And stimulate substantial economic benefits to the UK economy

£22bn
In private investment into housing driven by £8.5bn in targeted risk capital

£5.6bn–£5.8bn
In cumulative GDP uplift generated by construction activity across England by 2031

71,000 – 73,000 jobs
Supported across England by 2031 through construction

Background

Working with the Government through the 2024 Budget and 2025 Spending Review, CBRE helped make the fiscal case for more creative ‘risk capital’ investment.

Together with Greater Manchester Combined Authority and Homes England, CBRE made the case for a new approach, leading to the Good Growth Fund.

This report applies the lessons learned, modelling for the first time how risk capital can bridge viability gaps across England and estimates the wider economic benefits.

CBRE’s impact to date

Led a shift in public-sector subsidy from grant dependence to a risk capital co-investment model, enabling recycling of public funds and crowding in private capital.

Directly informed changes to state investment rules, formalised through the Financial Transactions (FT) Controls Framework, enabling risk capital deployment at scale.

Provided evidence supporting the £22bn FT allocation in the 2025 Spending Review, accelerating the transition to repayable public investment structures across Departments and government agencies.

Supported the creation of the National Housing Bank, the Office for Investment’s Strategic Site Accelerator, and the Chancellor’s City Investment Fund –national vehicles to deploy risk capital and drive public-private co-investment.

Secured Greater Manchester as a national pilot for risk capital, enabling the launch of the Greater Manchester Good Growth Fund in November 2025. CBRE’s business case for the Greater Manchester Combined Authority (GMCA) and Homes England (HE) demonstrated viability and fiscal benefits, resulting in the UK’s first place-based risk capital vehicle.

The case for risk capital

Risk capital is a fiscally superior alternative to grants – deploying sub-market capital and patient equity as recoverable FTs, allowing public capital to earn returns, recycle, and unlock growth, unlike non-repayable grants.

It materially improves value for money – in Greater Manchester, risk capital halved effective public cost; unviability reduced from £93,000 per home to £12,500, while Benefit Cost Ratios doubled.

It is land use and tenure agnostic, proven at scale, and unlocks policy-compliant development from city centre to edge-of-centre and other structurally challenged markets.

It is already delivering outcomes – GMCA has committed £350m in Wave One, enabling delivery of 3,000 homes and 2m sq ft of employment space. Wave Two has recently closed, with future calls expected each March and November.

It provides a scalable national model – the Good Growth Fund demonstrates how place-based risk capital vehicles can crowd in private investment, reduce grant dependency, and support housing and economic growth objectives within existing public sector fiscal rules.

Delivering housing supply underpins the Government's economic agenda

The Government committed to **delivering 1.5 million homes** in England over the next five years – a key pillar of the growth agenda.

Additional housing supply will support higher home ownership rates and wider economic and social objectives by lowering the cost of housing.

As house prices have risen faster than earnings, home ownership is increasingly dependent on family wealth, widening the inequality between those with and without family support. More supply would reduce costs and support those at risk of poverty and homelessness. **Nearly 135,000 households, including 176,000 children, live in temporary accommodation**.

Lower housing costs also support economic growth by promoting labour mobility and strengthening labour market depth, driving productivity and wages. Larger labour markets improve the matching of workers to jobs, generating productivity gains and higher earnings.

1

Productivity

Labour market depth partly drives regional productivity differences. Housing affordability enables workers to access high-productivity labour markets, deepening the talent pool.

3.1%

Productivity uplift from equivalent of 187,000 additional homes in London

2

Labour Mobility & Wages

Lack of housing is a major barrier to labour mobility, preventing workers from relocating to higher-productivity areas.

£1,300

Higher annual earning potential from moving to high-productivity areas

3

Social Mobility

Undersupply pushes up housing costs relative to income, slowing social mobility and widening the intergenerational wealth gap.

7.6x

Average **home costs 7.6 times typical earnings** in England

4

Social Outcomes

Persistent undersupply contributes to poverty, homelessness, and other adverse social outcomes across communities.

135,000

Households in temporary accommodation across England

Sources: 1 Homes England (2025) *Housing affordability and productivity*; 2 Resolution Foundation (2025) *The power of place*; 3 Office for National Statistics (2026) *Housing affordability in England and Wales 2025*; MHCLG (2026) *Statutory homelessness in England: July to September 2025*

PURPOSE OF THE NATIONAL STUDY

Accelerating housing delivery through risk capital approaches

The purpose of the study is to:

A. Apply the risk capital lessons learned from Greater Manchester across England.

B. Assess the housing viability challenge by collating the latest published five-year land supply for each local planning authority and evaluating the viability and deliverability of that pipeline.

C. Assess the economic and investment impact of unlocking development by applying risk capital approaches across each local authority in England.

The study strengthens the policy and fiscal case for risk capital as a scalable alternative to grants, operating within the existing fiscal rules of the Financial Transactions Controls Framework.

One national study based on four models:

1

Model A

The Planning Model: The latest published five-year land supply for each local authority (at December 2025) suggests delivery of 310,000 homes per year across England.

2

Model B

The Viability Model: A bespoke England-wide model has been developed at local authority level. The risk capital modelling, first piloted in Greater Manchester, has now been applied nationally.

3

Model C

The Uplift Model: Assigns public budget to unviable schemes over five years using a prioritisation structure.

4

Model D

The Computable General Equilibrium (CGE) Model: Translates the direct housing outputs into broader economic impacts, capturing effects on output, employment, and public finances of the modelled capital programme.

Models C and D are collectively referred to as the Econometric Model from here.

1

Model A

The Planning Model

The Planning Model

Baseline forecast of housing delivery in England.

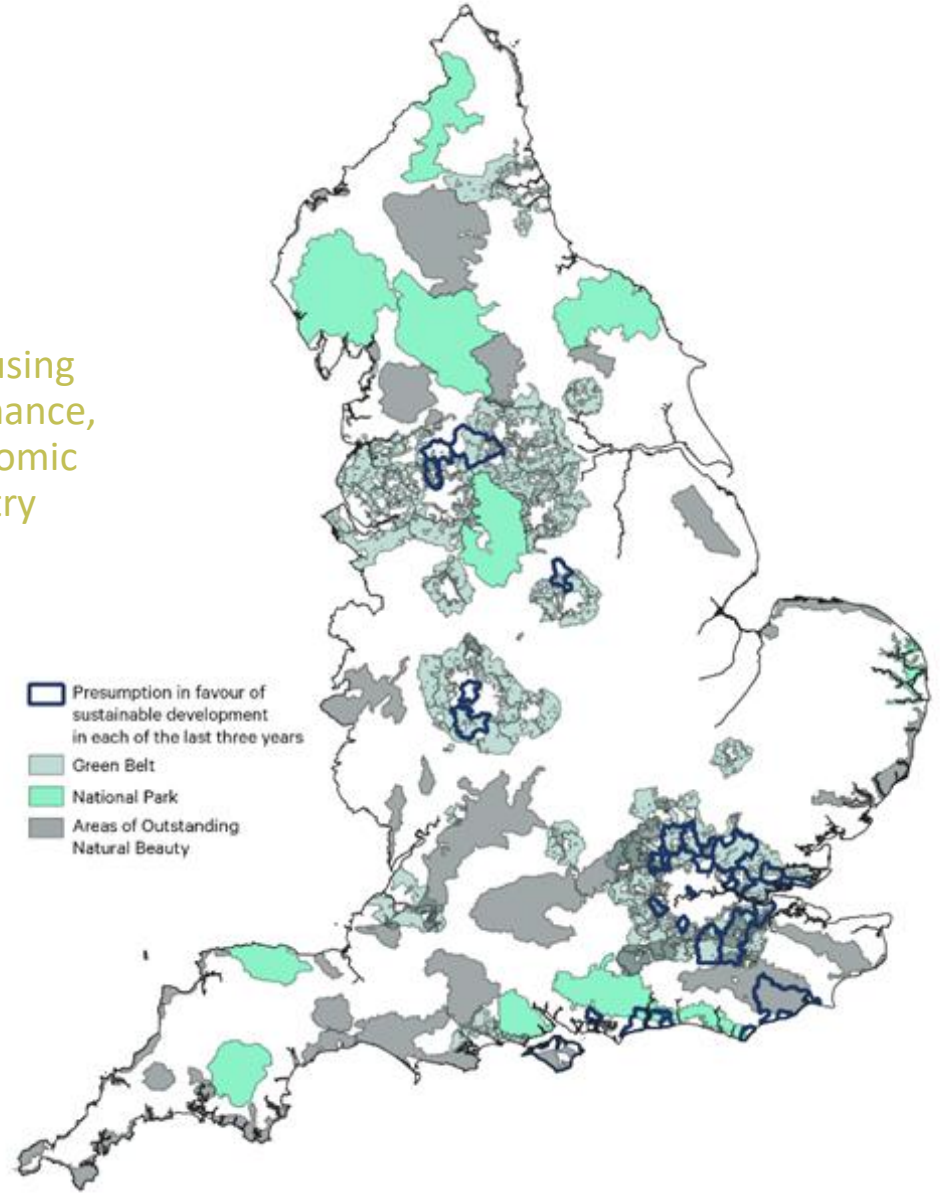
The latest published five-year land supply for each local authority (December 2025) suggests delivery of **310,000 homes per year across England**. These figures are tested by each local authority through their respective land supply reports.

MHCLG Housing Delivery Test (HDT) trends suggest a growing unmet housing need, initially concentrated in and around Greater London and now increasingly across the Core Cities – the country's economic engines of growth. Areas of under-delivery are expanding, as indicated by the 'Presumption' in the graphic.

Over the past decade, demographic, socio-economic, and market factors have driven an increase in high-density urban housing. However, national research now shows that this segment is facing the most acute viability challenges.

Viability is the core issue driving low delivery rates and is likely to worsen before improving.

Spatial patterns of housing delivery underperformance, undermining the economic prospects of the country



The Planning Model

New dwelling starts have fallen by more than a third from the 2022 peak.

Housing delivery across the UK has fallen. Dwelling starts peaked at 177,000 in FY2022, then **fell 36% to 113,000 by FY2024.**

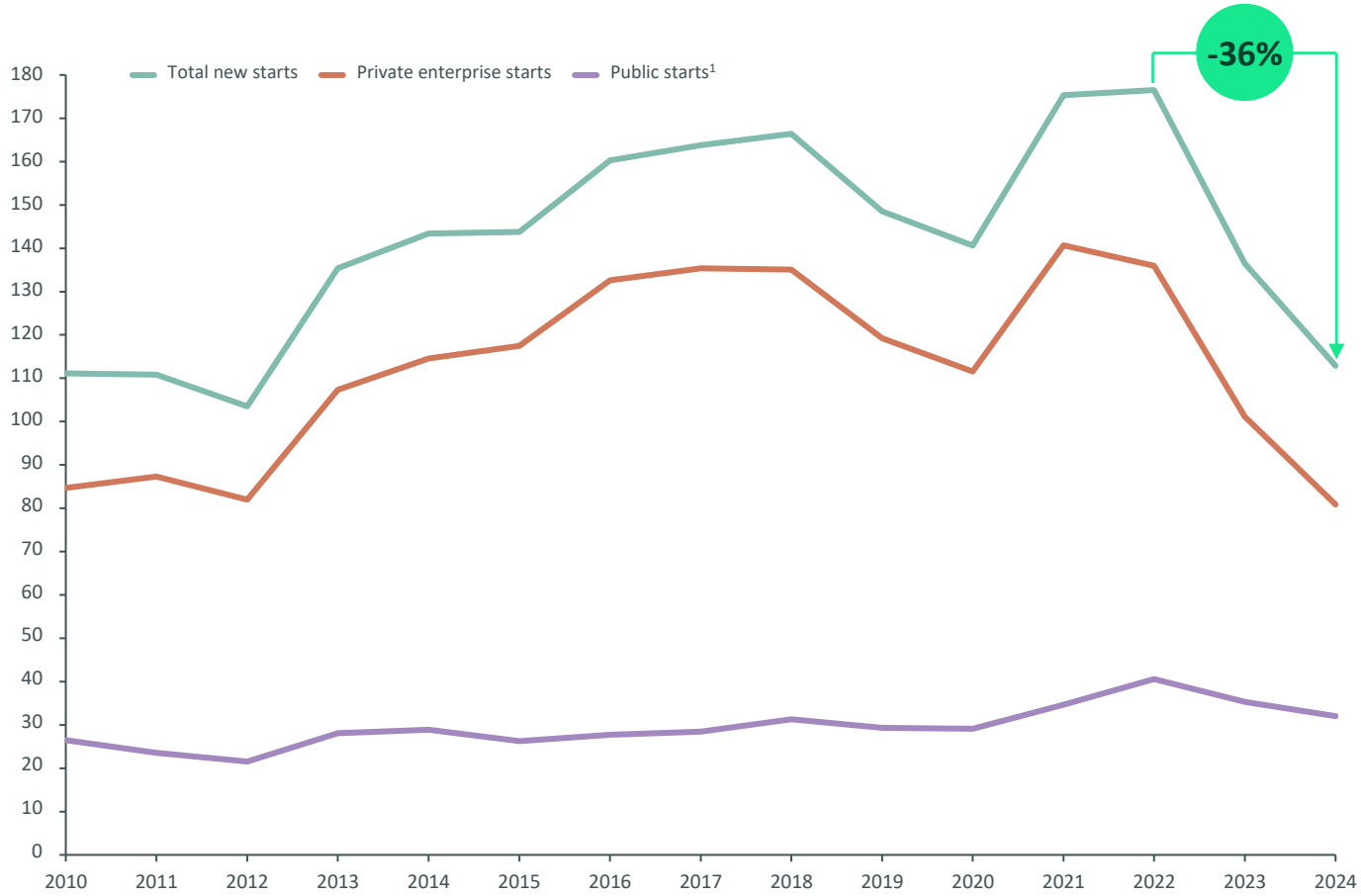
Starts had grown steadily from c.110,000 in FY2010, reflecting improving market conditions and policy support for new development. However, the post-2022 decline has reversed much of this progress in just two years.

This decline has been driven by reduced private sector activity as market conditions have reduced financial viability. Private sector starts depend on viability, requiring confidence that the developments will be profitable.

However, build cost inflation, financing costs, and softening house prices have converged to reduce profitability, making an increasing share of developments unviable.

New dwellings commenced across the UK

Number of dwellings (000s), FY2010-2024



1 Public starts represents both Housing Association starts and Local Authority starts.

Source: Office of National Statistics (2026) Indicators of house building, UK: permanent dwellings started and completed by country; Mandala analysis.

The Planning Model

Build costs have become significantly more expensive in the last five years, with materials increasing by 39%.

Construction material costs have risen by 39% from 2021 to 2025*, driven particularly by increases in cement, concrete, and plastic product prices, raising costs across the development pipeline.

This pressure has been further exacerbated by increasing financing costs. Interest rates peaked at 5.25% in 2023 and remain elevated, increasing finance charges from land acquisition through to construction.

Regulatory requirements add further costs per unit. Section 106 obligations, biodiversity net gain mandates, and Building Safety Act requirements each increase the burden on developers.

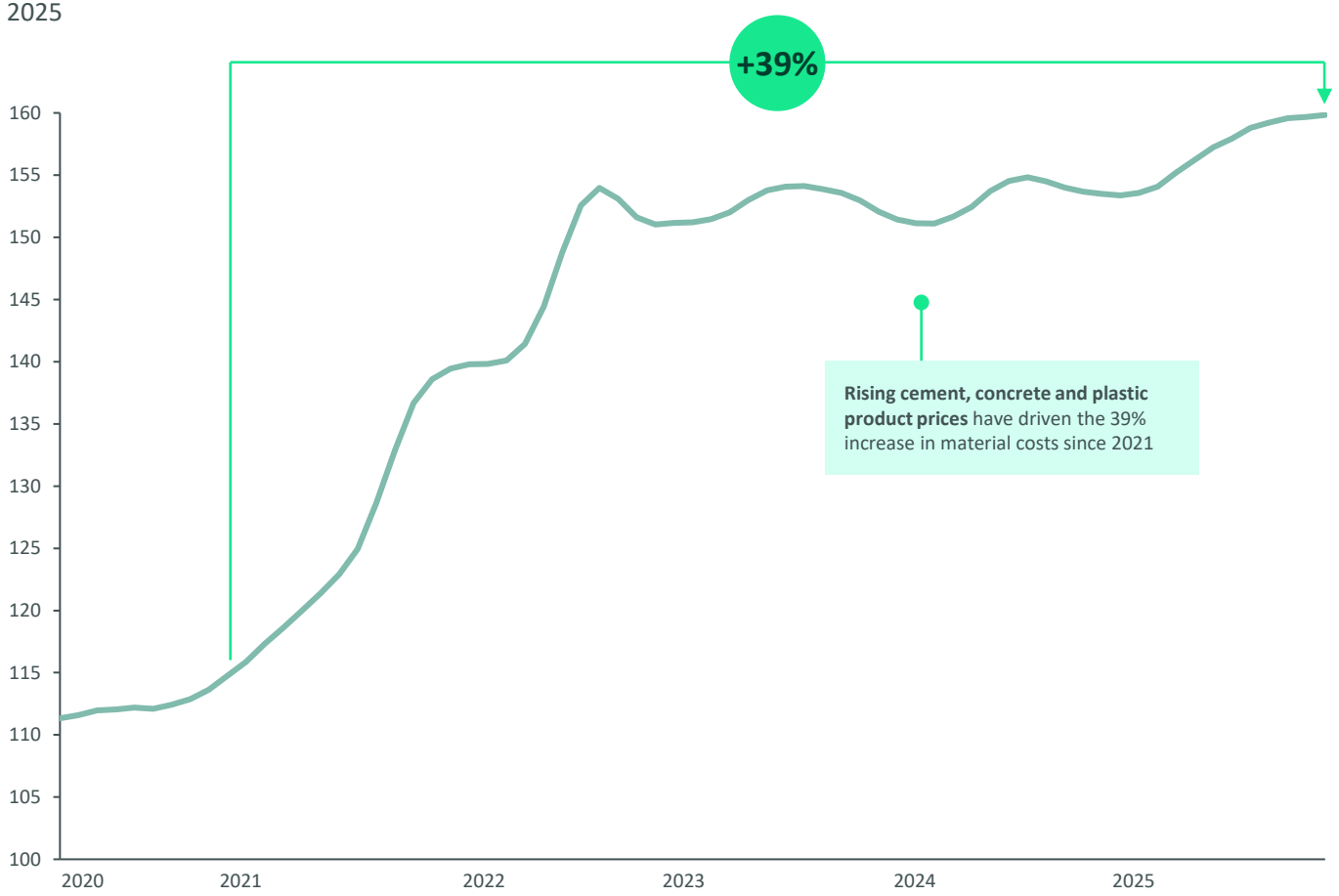
Together, these pressures have squeezed margins to the point where many development schemes can no longer proceed viably.

**Cement and concrete costs rose 31% from 2021 to 2025, the fastest increase of any material category. Plastic products rose 30% over the same period.*

UK electricity prices for manufacturers rose 75 % from 2021 to 2024.[1] Cement is particularly exposed to energy price movements. Its energy-intensive production means rising electricity prices flow directly into higher concrete costs, amplifying the material price increases seen since 2021.[2]

New housing construction material prices

Three-month moving average of monthly construction material price indices (2015=100), 2020-2025



Source: Department for Business and Trade (2025) Building materials and components statistics; Mandala analysis.

The Planning Model

House prices have ‘flatlined’ since 2023, making it increasingly difficult to deliver financially viable housing.

House prices have risen only 8% since 2022 and have been flat since 2023. This reflects higher interest rates, low wage growth, and wider cost of living constraints.

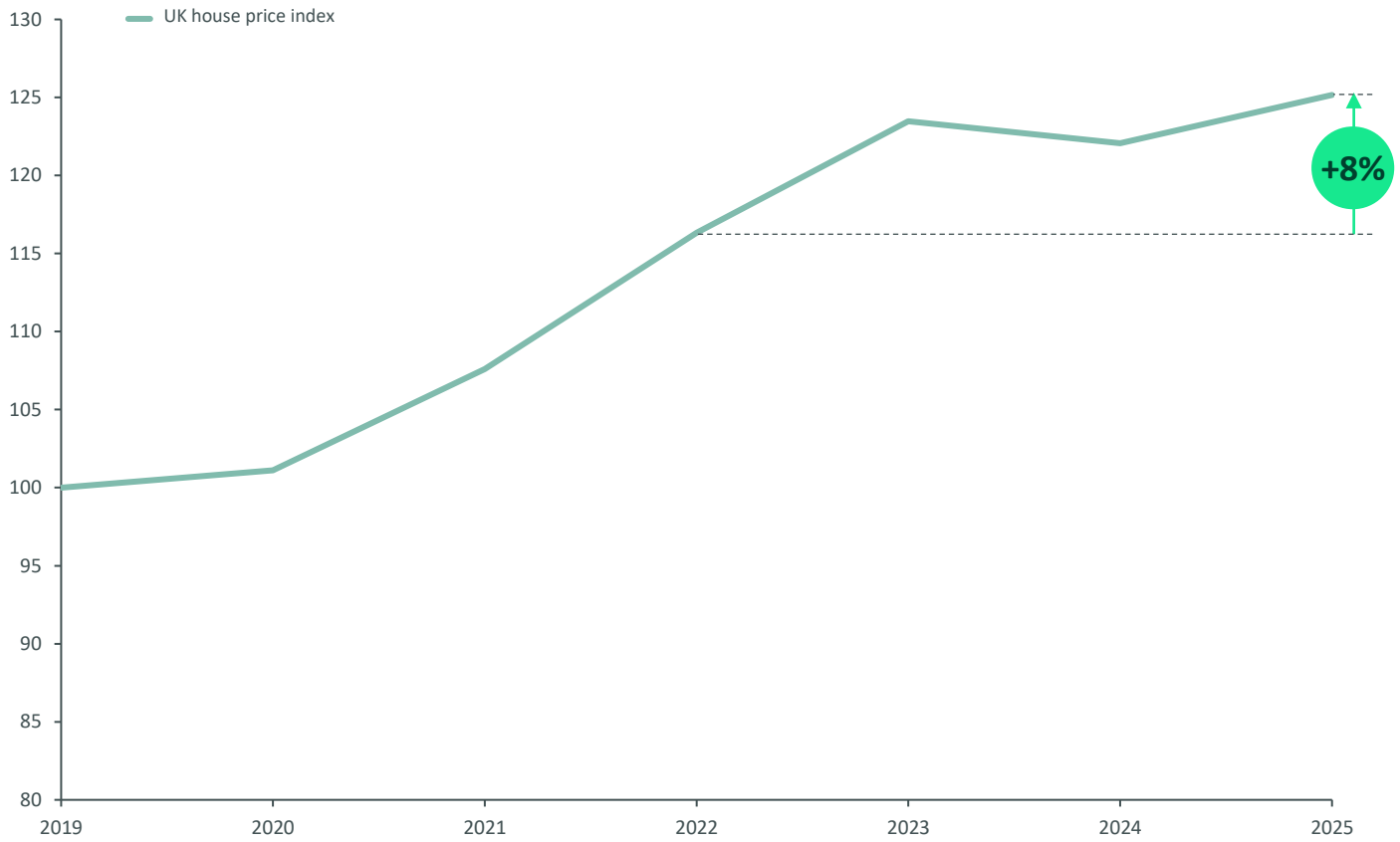
In some areas, prices are declining. In London, annual house prices fell 1.7% between December 2025 and January 2026, (c.£9,500). Following a further 1.2% in the preceding 12 months. At the same time, construction costs increased by 39%.

For developments appraised using 2021 or 2022 assumptions, a significant gap has emerged between projected and achievable sales values.

As revenues stagnate or fall while costs rise, schemes become unviable and delivery stalls.

UK house price index

House price index (2019=100), 2019-2025



Source: ONS (2026) UK House Price Index: monthly price statistics; Mandala analysis.

The Planning Model

Without intervention, England will fall considerably short of its annual housing need target.

England's housing target of **370,000 homes per year** was set to address a long-standing gap between need and delivery. In FY2024/25, **210,000 net additional homes were built** – an annual shortfall of 160,000 homes against the HDT.

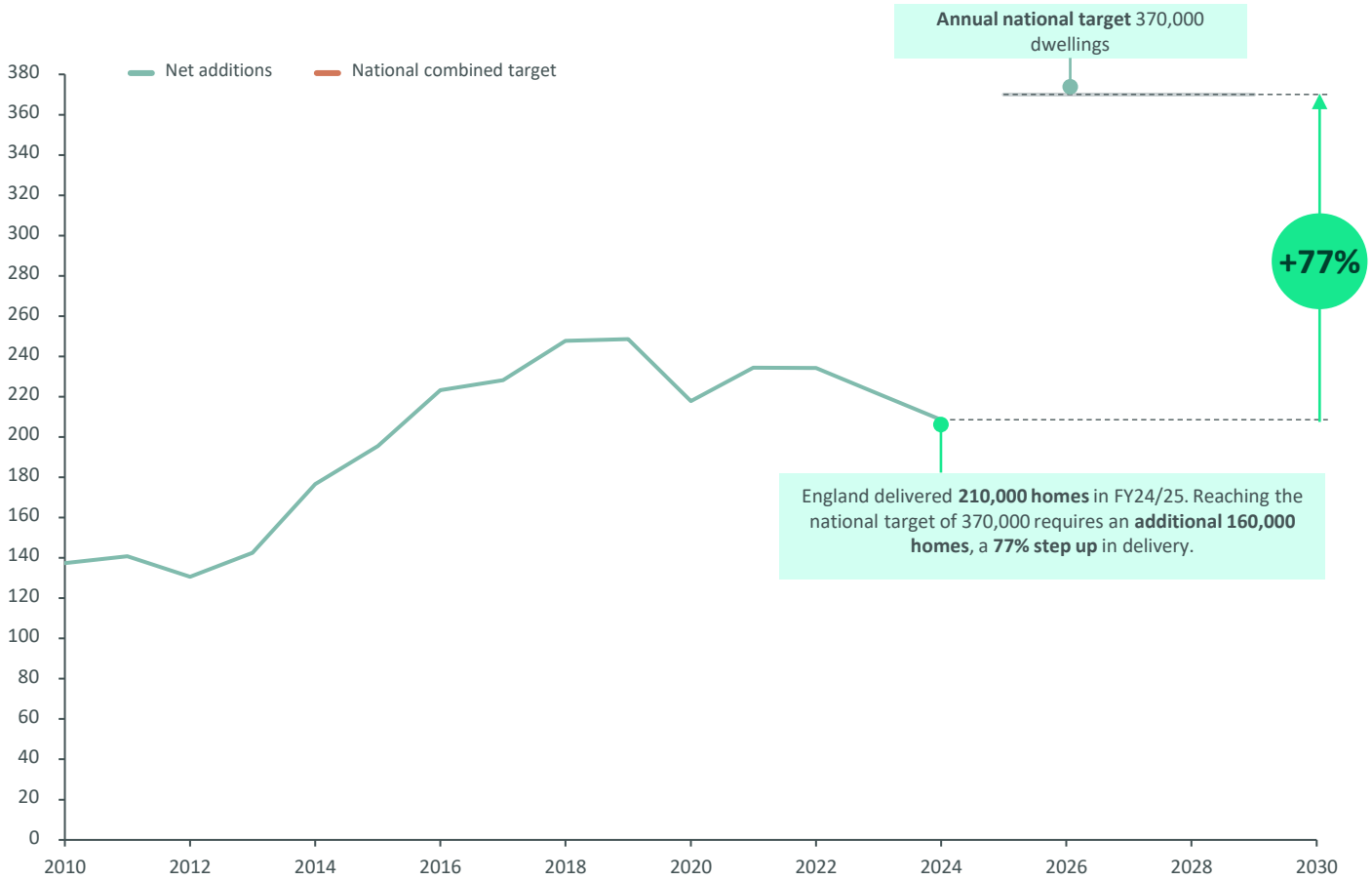
National Planning Policy Framework (NPPF) reforms will support the delivery of an additional 170,000 homes by 2030. However, the OBR forecasts total delivery of 1.26 million homes between 2025-30, leaving a 240,000 shortfall against the Government's 1.5 million target.*

The scale of the shortfall reflects viability constraints that planning reform alone cannot address. Targeted public intervention to restore the viability of development could help close the gap.

OBR (2025) Economic and fiscal outlook

Number of additional dwellings completed against the national combined target

Count of net additions (000s), 2010-2029



Source: Ministry of Housing, Communities and Local Government (2025) Live tables on housing supply: net additional dwellings; Ministry of Housing, Communities and Local Government (2024) Planning overhaul to reach 1.5 million new homes; Mandala analysis.

2

Model B

The Viability Model

The Viability Model

The Government has worked to boost housebuilding through planning reform; but viability gaps persist.

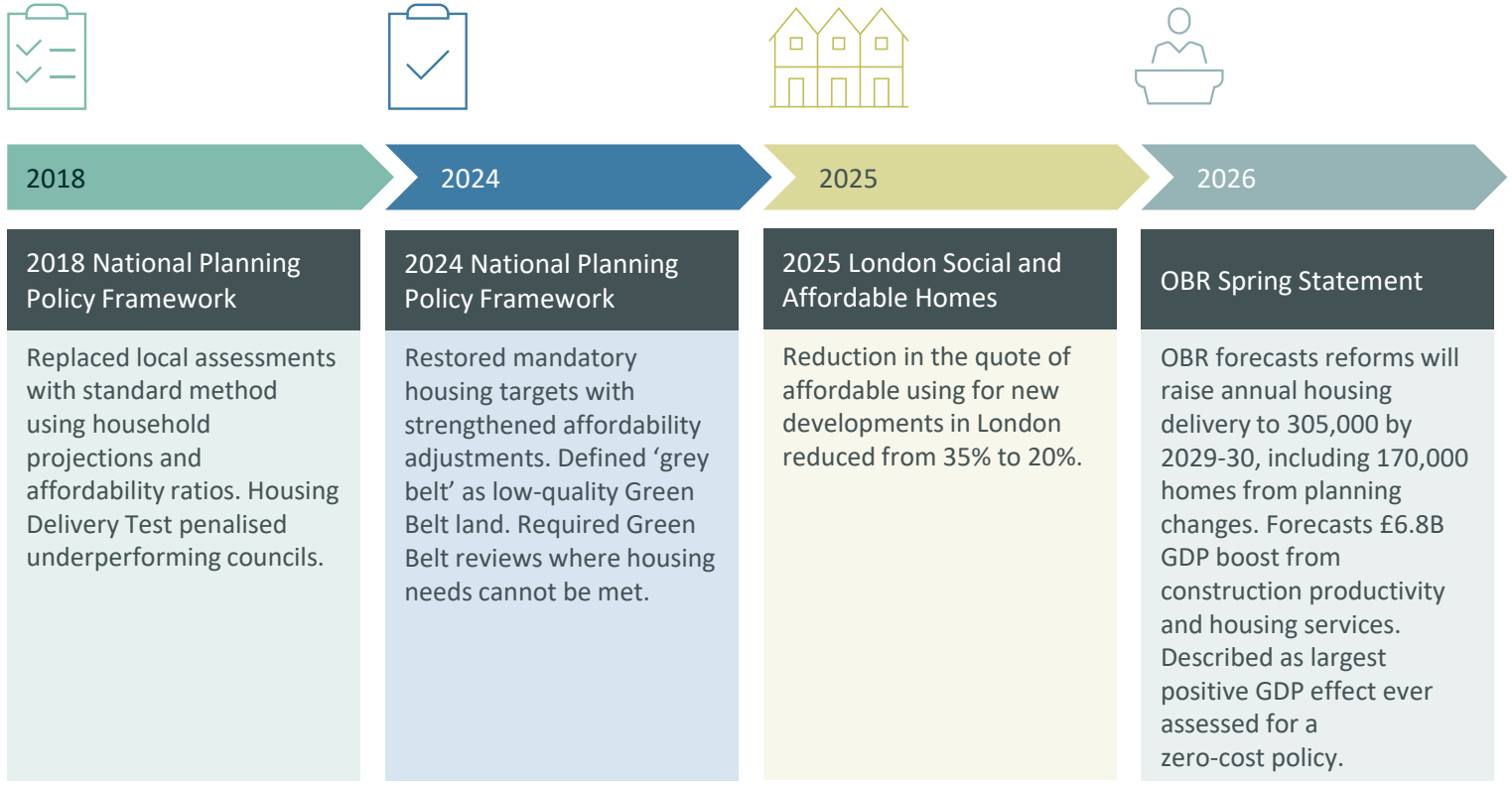
Constrained land supply drives competitive bidding, increasing land acquisition costs and flowing through to higher house prices and rents. Strict local authority discretion over sites outside national policy designations further limits the pipeline of developable land.

Government planning reforms expand development land supply through mandatory housing targets, grey belt release, and green belt boundary reviews. The December 2024 NPPF set a target of 370,000 homes per year and defined 'Grey Belt' as previously developed land or land that does not strongly contribute to Green Belt purposes.

The OBR expect these reforms to deliver an additional 170,000 homes by 2029-30, raising annual delivery to 305,000 homes per year.

However, despite significant reforms, the OBR still predicts that annual housing delivery will fall short of the 1.5 million home target, highlighting the need for further intervention to improve viability and accelerate development.

Timeline of planning reform events in the UK



Source: MHCLG (2025) Planning application statistics; Ashfords (2018) NPPF 2018; MHCLG (2024) National Planning Policy Framework; OBR (2025) Economic and fiscal outlook; HM Treasury (2025) Press release; Mayor of London (2026) London Social and Affordable Homes programme 202-2036; Mandala analysis.

The Viability Model

In the Autumn Budget 2024, the Government took steps to reform the fiscal framework, creating welcome flexibility to finance housebuilding in more sustainable ways.

	Old Framework	New Framework
Definition	**Public Sector Net Debt Framework** Gross debt liabilities minus liquid financial assets only. Ignores illiquid assets like government loans and equity stakes	**Public Sector Net Financial Liabilities** All financial liabilities minus all financial assets, including illiquid assets like government loan books and equity stakes
Treatment of Grant Financing	Defined as spending	Defined as spending
Treatment of Risk Capital	Defined as spending	Defined as offsetting asset

The new framework enables risk capital structures by recognising that when the Government borrows to invest, it creates a debt liability to UK gilt holders and a corresponding asset with value.

As government borrowing costs are typically lower than private market return requirements, this enables a flexible form of subsidy, depending on the terms and risk of the investment.

This approach is more fiscally sustainable and fair to the taxpayer. Unlike traditional grants, where the Exchequer bears both the cost of principal and interest, under a risk capital model the principal is repaid with interest (subject to policy aims) and can be recycled into future projects without additional borrowing.

Source: Mandala analysis

The Viability Model

The fiscal reforms have enabled the establishment of the National Housing Bank, which is a powerful new tool to support housing delivery.

The Government announced a National Housing Bank in June 2025, backed by £16bn in public finance capacity. Operating as a subsidiary of Homes England, it aims to bridge viability gaps and restore confidence in housebuilding.

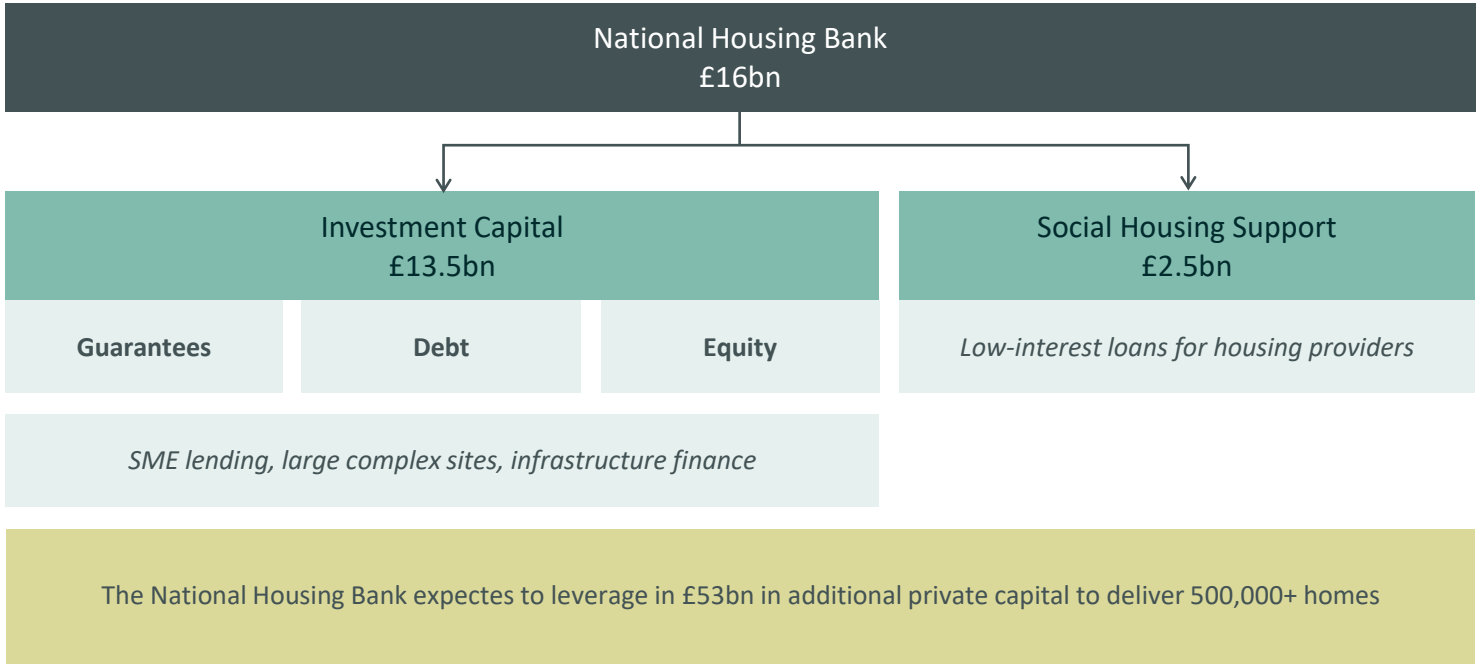
The Bank is expected to leverage £53bn in private institutional capital, supporting the delivery of 500,000 homes.

£2.5bn has been allocated to low-interest loans for social and affordable housing providers. This complements the £39bn Affordable Homes Programme announced at the Spending Review.

The remaining £13.5bn will be deployed through debt, equity, and guarantee products, guided by the Financial Transactions Controls Framework, enabling risk capital investment.

While allocations remain under development, c.£5bn is expected for guarantees, with the potential risk capital allocation capped at £8.bn.

National Housing Bank funding structure



Source: MHCLG (2025) Press release; Mandala analysis.

The Viability Model

The National Housing Bank can use a risk capital approach to invest in housing alongside private capital, to unlock stalled developments while sharing in the upside.

Illustrative example of revenue and cost cash flows for a high-rise apartment project

Finance
Capital stack assembled

Year 1

Senior debt	£39m
Private equity	£13m
Risk capital	£13m

Risk capital fills the viability gap

Construction
Capital deployed

Years 1-2

Debt draw down	-£39m
Private equity draw down	-£13m
Risk capital draw down	-£13m

Risk capital provides first-loss buffer throughout build

Hold*
Revenue generated

Years 3-10

Debt service	-£2.3m
Private interest	£1.6m
Public interest	£0.6m

Risk capital accumulates interest during hold period

Exit
Investment recovered

Year 10

Debt repaid	-£39m
Private return	-£26m
Public return	-£18m

Risk capital recovered including principal plus interest

**The hold period is only activated for mid- and high-rise apartments. Houses and low-rise sold immediately following the construction period.*
Source: Mandala analysis.

The Viability Model

We have built a bespoke model to assess viability across every local authority in England, identifying where risk capital could unlock new supply.

The risk capital modelling, first piloted in Greater Manchester, has now been applied nationally. Our analysis shows that an £8.5bn allocation, deployed using a geographically agnostic 'least effort most homes' approach, could unlock **123,000–198,000 homes over five years,** depending on the public return required – with delivery concentrated in London and the South.

The Government's economic strategy is focused on investing in the productive capacity of cities in every region of England and devolving powers to city region Mayors. An approach which directs risk capital to the Mayoral Combined Authority areas would unlock **94,000–104,000 homes over five years**, again, depending on the public return sought.

These results are based on over 3,600 individual viability assessments across all 307 local authorities, using CBRE's risk capital Viability Model, proprietary data, sector-leading valuation methodologies. Further detail is provided in Section 3.

CBRE has created a financial model which permits the user to test the viability and the application of risk capital on four illustrative housing typologies in each local authority across England:

Housing Scheme
150 units for sale
(10% social rent and 10% shared ownership)

Mid-Rise Apartment Scheme (10-storeys)
150 units single family build to rent
(20% discounted market rent)

Low-Rise Apartment Scheme (5-storeys)
75 units for sale
(10% social rent and 10% shared ownership),

High-Rise Apartment Scheme (20-storeys)
300 units single family build to rent
(20% discounted market rent).

The model draws on local authority-level data as inputs into the Viability Model:

- **Development costs:** Turner & Townsend have provided construction costs by typology (houses and low, mid- and high-rise apartments) for each local authority, based on average rates delivered by a national (Tier 1 or 2) contractors.
- **Land values:** Average land values per hectare are derived from multiple datasets – VOA 2019, Realyse land transactions, and residual appraisals using the viability model – and validated with CBRE land agents.
- **Sales values:** Using UK Land Registry Price Paid, CBRE has sourced average new-build sales values for semi-detached properties and apartments. Where new-build data is unavailable, all-prices averages are used.
- **Rental values:** Using Realyse, CBRE has collated average rent per calendar month and number of transactions for new-build rental apartments between January 2021 and December 2025.
- **Residential Single-Family Yields:** CBRE Research publishes monthly UK Property Investment Yields. Across categories such as South East Prime, Regional Cities Prime, Other Centre Secondary. Each local authority has been assigned to a category.
- **Rental Growth Forecasts:** CBRE Research's *UK Residential Forecasts Q3 2025* (page 9) provides rental growth projections and house price forecasts between 2024–2029 (page 13).
- **Debt Margins:** CBRE's Debt team has provided indicative debt margins by region, ranging from 3.75% p.a. in London to 4.50% p.a. in the North of England.

Further detail on the methodology underpinning the Viability Model is provided in the Appendix.

The Viability Model

Greater Manchester Combined Authority launches the £1bn Good Growth Fund in November 2025 adopting a risk capital approach.

*"Greater Manchester's Good Growth Fund is a bold ambition for the **next decade** of 'Good Growth', an ambition built on a decade of delivery that has made Greater Manchester the fastest-growing economy in the UK. Building on that foundation, the Good Growth Fund now sits at the heart of how we deliver the priorities of the Greater Manchester Strategy and its Delivery Plan, including **Healthy Homes for All**, **Good Jobs with Progression**, and **thriving, connected neighbourhoods** across all ten boroughs. The Fund brings together the levers enabled by **devolution** housing, transport, regeneration, skills and investment to create the conditions for long-term success and ensure that growth is aligned with GMS outcomes. By sequencing and prioritising investment through the **Integrated Pipeline**, the Good Growth Fund translates our shared missions into delivery on the ground: **enabling new homes, supporting high-quality jobs, accelerating the transition to net zero, and strengthening local centres and communities across Greater Manchester**".*

Report of Greater Manchester Combined Authority, March 2026

Greater Manchester Good Growth Fund: Successful Residential Schemes (Phase 1)

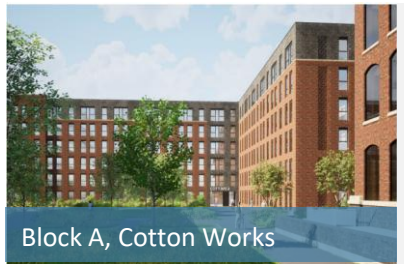
Client: Far East Consortium
Location: Manchester
Homes created: 622
Public Funding ask: £34.1m patient equity

Client: Muse Places
Location: Oldham
Homes created: 256
Total Development Costs: £81,236,738
Public Funding ask:
- £31.34m patient equity
- £3.56m grant

Client: Glenbrook
Location: Manchester
Homes created: 364
Public Funding ask: £17.0m patient equity

Client: ECF
Location: Salford
Homes created: 336
Total Development Costs: £111,353,939
Public Funding ask: £23.4m patient equity

Client: This City
Location: Manchester
Homes created: 126
Public Funding ask: £16.3m patient equity



Client: The Heaton Group
Location: Wigan
Homes created: 179
Total Development Costs: £40,531,376
Public Funding ask:
- £10.7m patient equity
- £3.36m grant

Client: Cole Waterhouse / Heim Global
Location: Trafford
Homes created: 382
Public Funding ask: £26.0m patient equity

Client: Muse Places
Location: Stockport
Homes created: 435
Total Development Costs: £105,171,687
Public Funding ask: £41.3m patient equity

3

Model C & D

The Econometric Model

The Econometric Model

Against the baseline assessment of viability across all local authorities, the Uplift Model assesses how many homes could be unlocked through an £8.5bn risk capital fund.

Two allocation approaches are modelled:

- **Combined Authority allocation:** targeting investment into city regions
- **Agnostic allocation:** directing capital to the most efficient opportunities across England

This illustrates a key policy choice for the Government. While urban densification is central to the Government's economic strategy, it may not maximise the number of homes delivered for the level of investment.

Under the Combined Authority approach, some city regions face such acute viability challenges that risk capital alone cannot fully bridge the gap; in these cases, the model assumes some public grant available to support.

Each approach is also tested against two public return profiles. As expected, higher return requirements reduce the number of homes delivered and influence the location and typology of schemes brought forward.

Uplift model approach

1

Types of allocation models examined	
Combined Authority allocation	Agnostic allocation
Allocated a proportion of funds to city-region combined authorities (see appendix). Risk capital is allocated to the developments in the combined authority with the lowest viability gap per unit unlocked. Once all the projects which can be bridged with risk capital alone have been allocated, the model then allocates as much risk capital as possible before using public grant to bridge any residual gap.	This can be thought of as the 'least effort most homes' approach. Risk capital is allocated to the developments in across any local authority in England with the lowest viability gap per unit unlocked. Public grant is not needed as the total allocation of risk capital is over subscribed.

2

Types of public capital	
Risk capital	Public grants
The Government invests risk capital, which is repaid as rent is collected and homes are sold over a 3-10-year period. The rate of return on this investment can be varied according to policy objective. This work has tested two rates of return: 4.4% which was the UK 10-year gilt rate prior to the Middle East conflict; and 0% which would generate a fiscal cost but offers greater subsidy.	The Government provides grant with no repayment requirement. We assume this is funded from the existing allocation to Homes England.

The Econometric Model

Combined Authority allocation: £8.5bn in risk capital could unlock 93,600–103,900 homes.

The deployment of £8.5bn in public risk capital could unlock 93,600–103,900 additional dwellings across England by 2031, depending on the return on public investment required.

At a 4.4% return, 93,600 dwellings are unlocked across England by 2030, concentrated in houses and mid-to high-rise apartments where viability gaps can be bridged at that level.

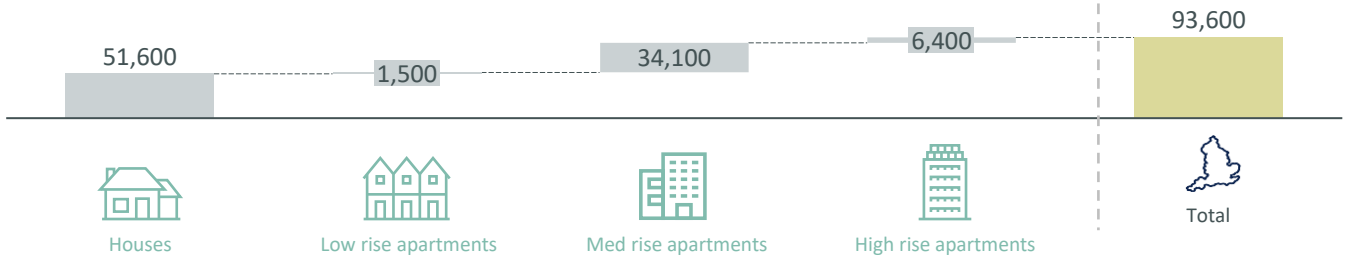
At a 0% return, 103,900 dwellings are unlocked, with houses accounting for the largest share, as removing interest maximises the viability for longer-build projects.

Mandala estimates this uplift by calculating viability gaps for representative developments in each local authority, with and without public risk capital. A share of the £8.5bn is allocated to city-region combined authorities (as set out in the Appendix). Within the Combined Authority, risk capital is deployed to unviable schemes requiring with the lowest investment required per unit.

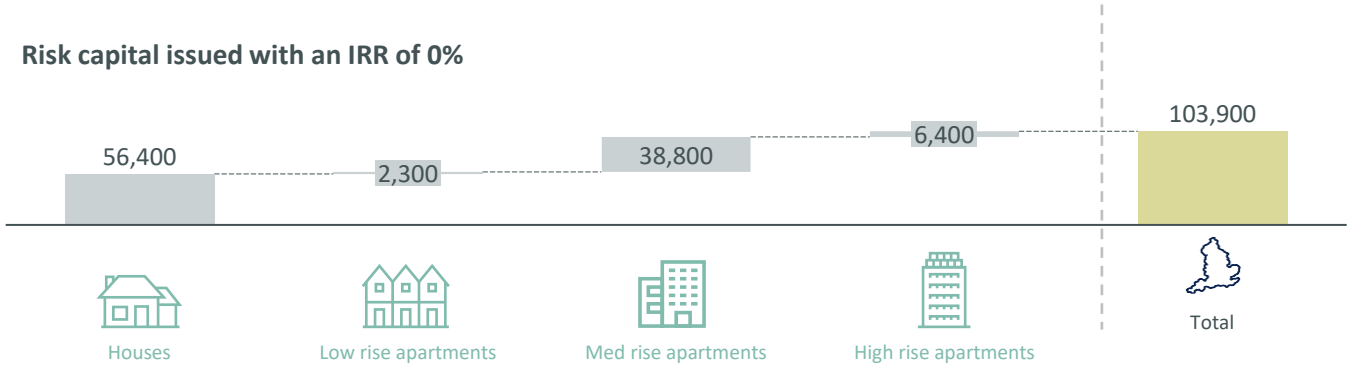
Delivery of new homes by typology unlocked by public risk capital deployment

Number of new dwellings, 2027-2031

Risk capital issued with an IRR of 4.4%



Risk capital issued with an IRR of 0%



Houses see the largest absolute uplift when the public capital return is reduced from 4.4% to 0%, reflecting their longer construction and sales period relative to other typologies. A longer period means a greater share of project costs is attributable to capital charges, amplifying the improvement from any reduction in the required return.

The Econometric Model

This public risk capital investment leverages in significant private sector investment which could support £5.8bn in GDP growth and 73,000 jobs by 2031n

1. Targeted government risk capital

- The Government can deploy £8.5bn in risk capital to unlock additional housing across England
- At a 4.4% return, risk capital is recovered with interest
- At a 0% return, risk capital is deployed at limited cost to the Government

£8.5bn
in risk capital

2. Private Investment

- Risk capital makes previously unviable developments viable, attracting private investment
- At a 4.4% public return, risk capital crowds in £21.6bn in private investment
- At a 0% public return, risk capital crowds in £21.9bn in private investment

£21.6bn to £21.9bn
in private investment

3. Cumulative GDP

- Construction activity and associated spending generates broader economic activity across the economy
- At a 4.4% public return, the programme supports a cumulative GDP uplift of £5.6bn by 2031
- At a 0% public return, the cumulative GDP uplift reaches £5.8bn by 2031

£5.6bn to £5.8bn
GDP uplift

4. Jobs Supported

- Construction activity supports direct jobs and indirect employment in related sectors
- At a 4.4% public return, the programme supports 71,000 jobs by 2031
- At a 0% public return, 73,000 jobs are supported by 2031

71,000 to 73,000
jobs supported

Source: G-Cubed (2025) G-Cubed model 20U; OBR (2026) Economic and fiscal outlook; OBR (2025) Long-term economic determinants; ONS (2026) Gross Domestic Product; CBRE; Mandala analysis.

The Econometric Model

The economic impact of public investment grows year-on-year as development activity increases across England.

Deploying £8.5bn in risk capital at a 4.4% return can increase private investment

£, billions, additional private investment, 2027-2031

At a 4.4% public return:
£21.6bn additional private investment unlocked

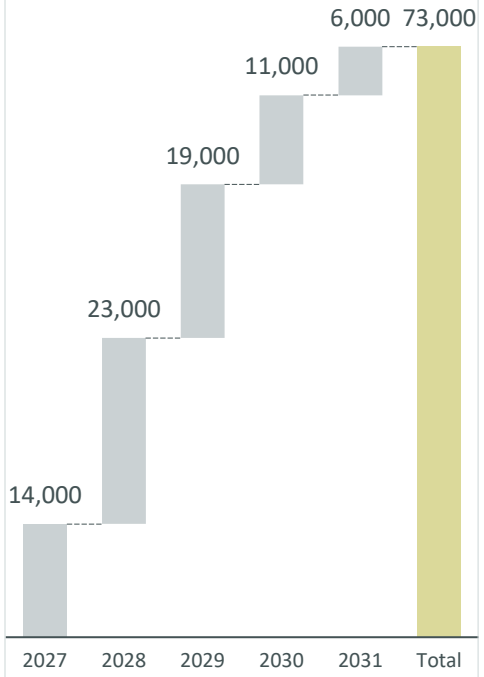
This will support economic growth

£, billions, additional real gross domestic product, 2027-2031

At a 4.4% public return:
£5.6bn Cumulative GDP uplift by 2031

And support employment across England

Additional jobs supported, 2027-2031



At a 4.4% public return:
*71,*000 Jobs supported across England by 2031

Source: G-Cubed (2025) G-Cubed model 20U; OBR (2026) Economic and fiscal outlook; OBR (2025) Long-term economic determinants; ONS (2026) Gross Domestic Product; CBRE; Mandala analysis.

The Econometric Model

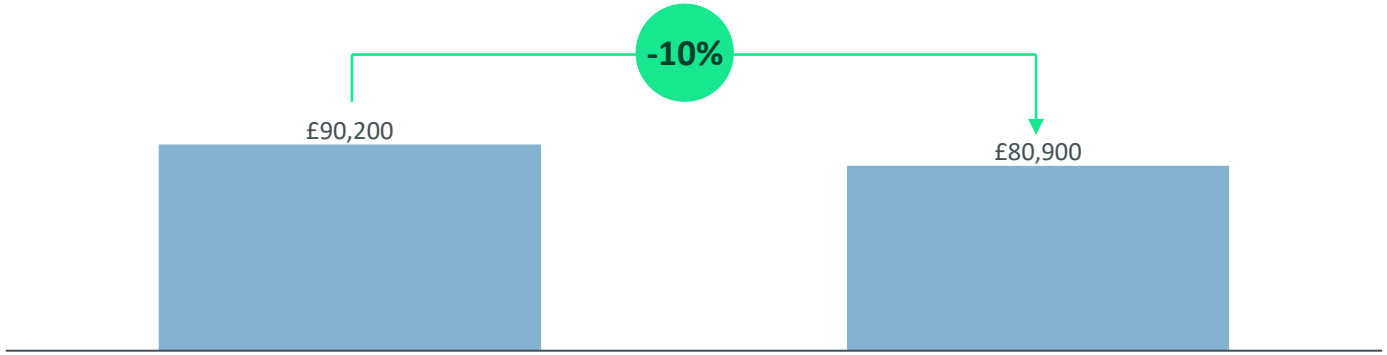
Accepting a lower return reduces the cost per dwelling, stretching the impact of public capital deployed.

Reducing the required public return from 4.4% to 0% lowers the average cost to the Government per unit by 10%, from £90,200 to £80,900. The same £8.5bn funding therefore delivers more homes at a lower cost per unit.

The programme's geographic reach remains relatively stable. At a 4.4% return, viable schemes are concentrated across 35 local authorities. At 0%, this marginally reduces to 34, focusing delivery on areas where viability constraints are most acute.

Average cost to the Government per unit under each public rate of return

Average cost to government per unit (£), 2027-2031



Public equity IRR of 4.4%		Public equity IRR of 0%	
93,600	Total additional dwellings unlocked	103,900	Total additional dwellings unlocked
35	Delivered across local authorities	34	Delivered across local authorities
£75,300	Total risk capital per home	£71,000	Total risk capital per home
£14,900	Total public grant per home	£9,900	Total public grant per home
5.1 : 1	Ratio between risk capital and public grant required	7.2 : 1	Ratio between risk capital and public grant required

Note: Figures are rounded to the nearest £1,000 and may not sum due to rounding.

Source: CBRE; Mandala analysis.

The Econometric Model

Agnostic allocation: £8.5bn in risk capital could unlock 123,000–198,000 homes

The deployment of £8.5bn in risk capital could unlock 123,000 - 198,000 additional dwellings across England by 2031, depending on the return on public investment required.

At a 4.4% return requirement, an agnostic approach unlocks around 30% more volume than the combined authority approach. 123,000 dwellings are unlocked, mostly houses and medium high-rise apartments where viability gaps are bridgeable at this return level. Low rise apartments generate too few units per site to justify public capital allocation on a cost-per-dwelling basis, while high rise schemes carry construction costs that cannot be supported by rental income at this return threshold.

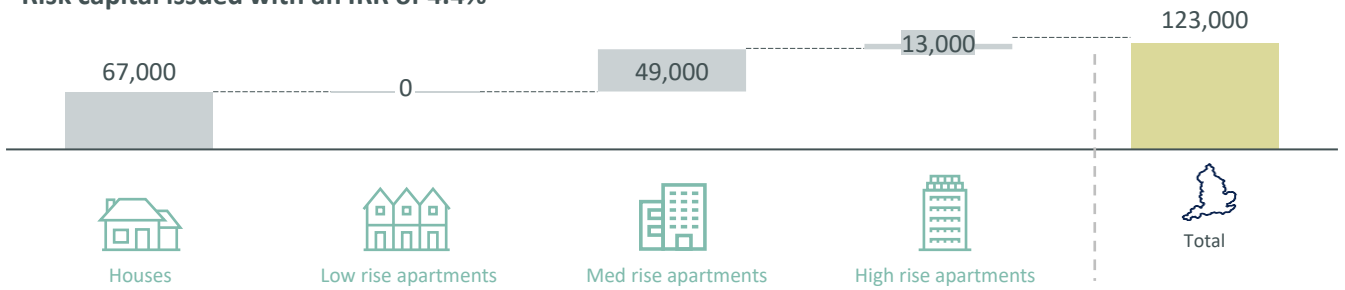
At a 0% return requirement, we see a significant expansion in delivery. 198,000 dwellings are unlocked, with houses accounting for the largest share of incremental delivery. The removal of interest maximises the viability improvement for longer-build typologies.

Mandala has estimated uplift by calculating the viability gap for representative developments in each LA in England, with and without risk capital. Risk capital is allocated to projects with the lowest risk capital cost per unit.

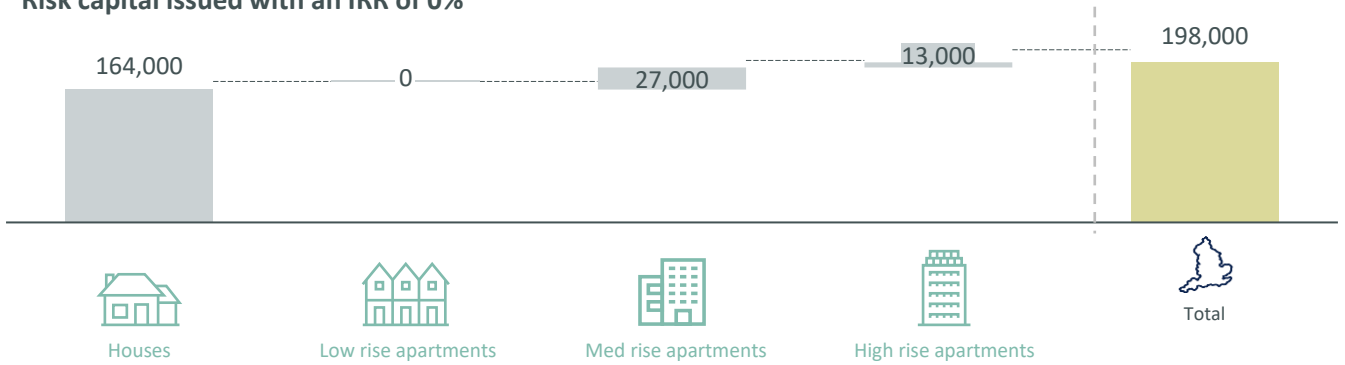
Delivery of new homes by typology unlocked by public capital deployment

Number of new dwellings, 2027-2031

Risk capital issued with an IRR of 4.4%



Risk capital issued with an IRR of 0%



Houses see the largest absolute uplift when the public capital return is reduced from 4.4% to 0%, reflecting their longer construction and sales period relative to other typologies. A longer period means a greater share of project costs is attributable to capital charges, amplifying the improvement from any reduction in the required return.

Source: CBRE; Mandala analysis.

Appendix 1

Extended results

EXTENDED RESULTS

City region combined authority split in total public investment allocated

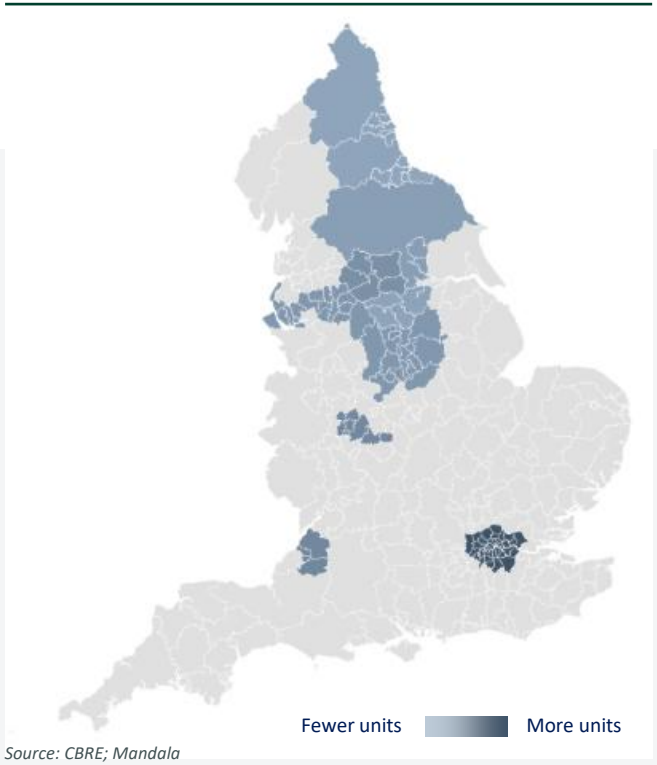
COMBINED AUTHORITY	PROPORTION OF FUNDS	TOTAL FUNDS
East Midlands	6%	£500,000,000
Greater London	24%	£2,000,000,000
Greater Manchester	12%	£1,000,000,000
Liverpool	9%	£750,000,000
North East	6%	£500,000,000
South Yorkshire	6%	£500,000,000
Tees Valley	6%	£500,000,000
West Midlands	12%	£1,000,000,000
West Yorkshire	9%	£750,000,000
West of England	6%	£500,000,000
York and North Yorkshire	6%	£500,000,000
Rest of England	0%	£0

Source: Mandala analysis.

EXTENDED RESULTS

City-region combined authority allocation, 4.4% return on capital

Units by typology and combined authority 2027-2031



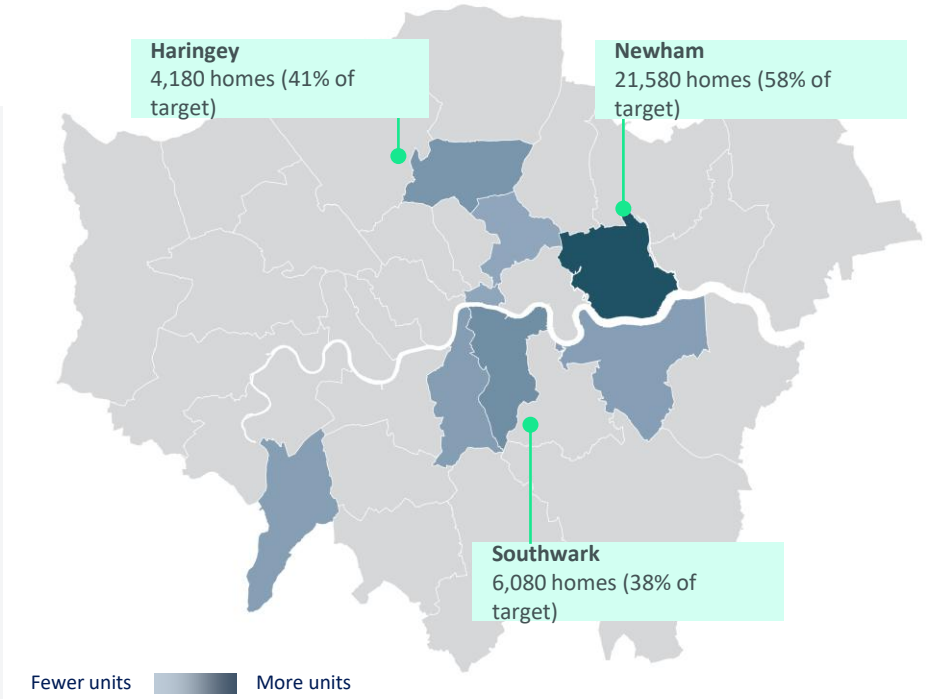
Source: CBRE; Mandala analysis.

COMBINED AUTHORITY	HOUSES	LOW-RISE APARTMENTS	MEDIUM-RISE APARTMENTS	HIGH-RISE APARTMENTS
East Midlands	5,400	0	0	0
Greater London	0	35	31,495	6,400
Greater Manchester	3,300	300	1,975	0
Liverpool	5,400	45	0	0
North East	3,600	200	0	0
South Yorkshire	3,600	250	0	0
Tees Valley	3,600	45	0	0
West Midlands	8,100	75	0	0
West Yorkshire	6,300	425	0	0
West of England	7,800	135	610	0
York and North Yorkshire	4,500	0	0	0
Total England	**51,600**	**1,510**	**34,080**	**6,400**

EXTENDED RESULTS

In Greater London, public risk capital could unlock 38,000 build to rent homes and £20bn of private investment while generating a 4.4% return

Units by combined authority 2027-2031



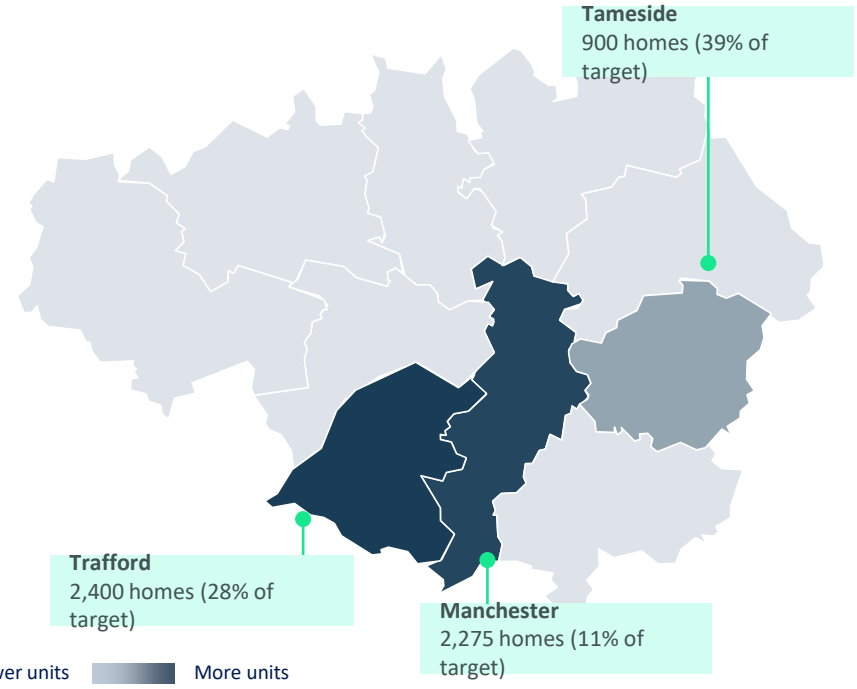
Source: CBRE; Mandala analysis.

Total public risk capital	**£2bn**
Private sector capital unlocked	**£20bn**
Total homes unlocked	**37,900**
...of which s106 homes	**7,600**
Average subsidy per unit	**£53,000**
...of which public risk capital	**100%**

EXTENDED RESULTS

In Greater Manchester, public risk capital can substitute for public grant and deliver a 4.4% return, even when bridging significant viability gaps

Uplift by combined authority 2027-2031



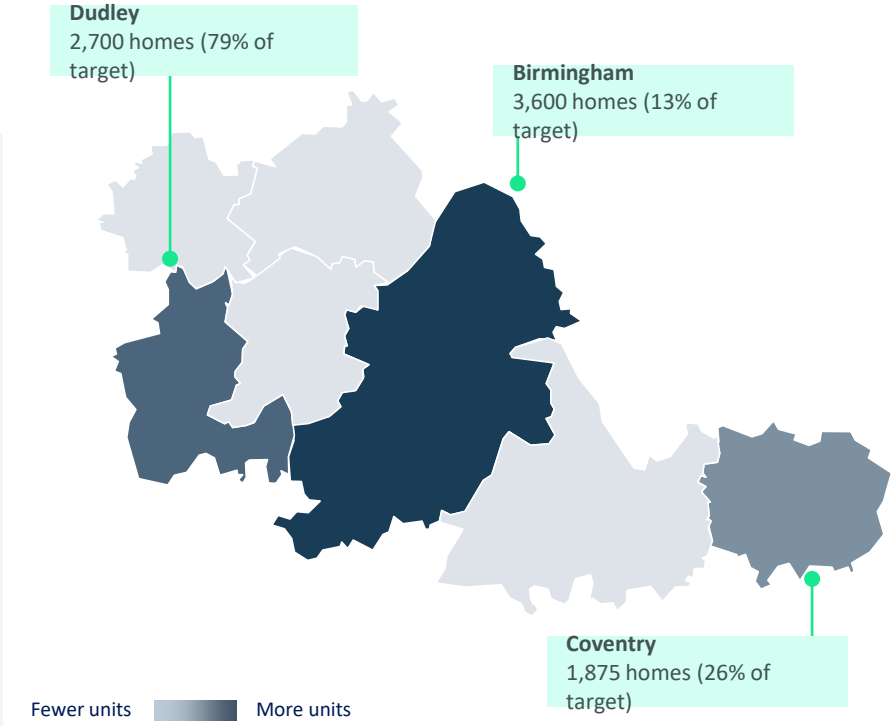
Source: CBRE; Mandala analysis.

Total public risk capital	£900m
Total public grant required	£90m
Total homes unlocked	5,600
...of which s106 homes	800
Average subsidy per unit	£176,000
...of which public risk capital	91%

EXTENDED RESULTS

In the West Midlands, risk capital can deliver 2,000 social and affordable homes and a 4.4% return on public investment

Unlocked by Combined Authority 2027-2031



Source: CBRE; Mandala analysis.

Total public risk capital	Total public grant required
£700m	£300m

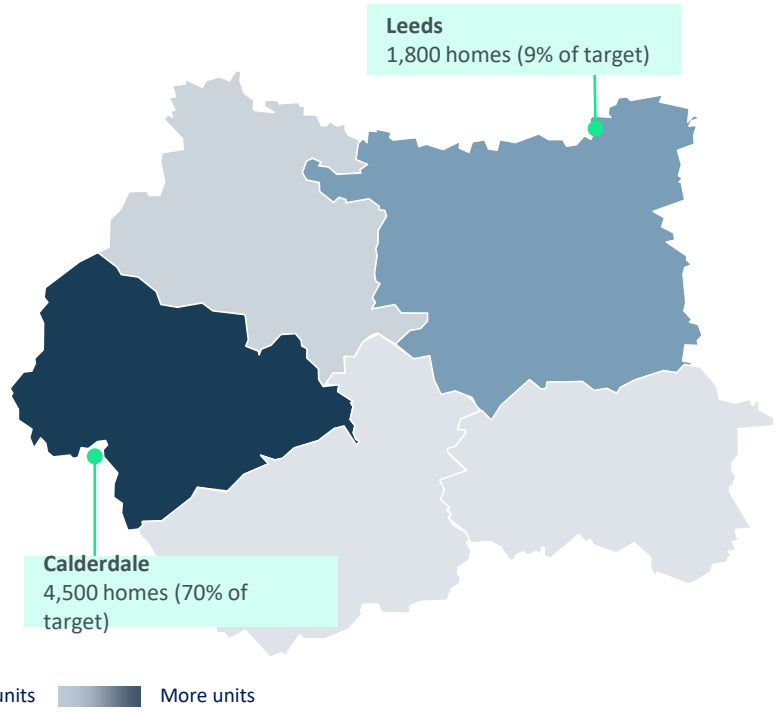
Total homes unlocked	...of which s106 homes
8,200	2,000

Average subsidy per unit	...of which public risk capital
£122,000	69%

EXTENDED RESULTS

West Yorkshire

Units by combined authority 2027-2031



Source: CBRE; Mandala analysis.

Total public risk capital	Total public grant required
£570m	£170m

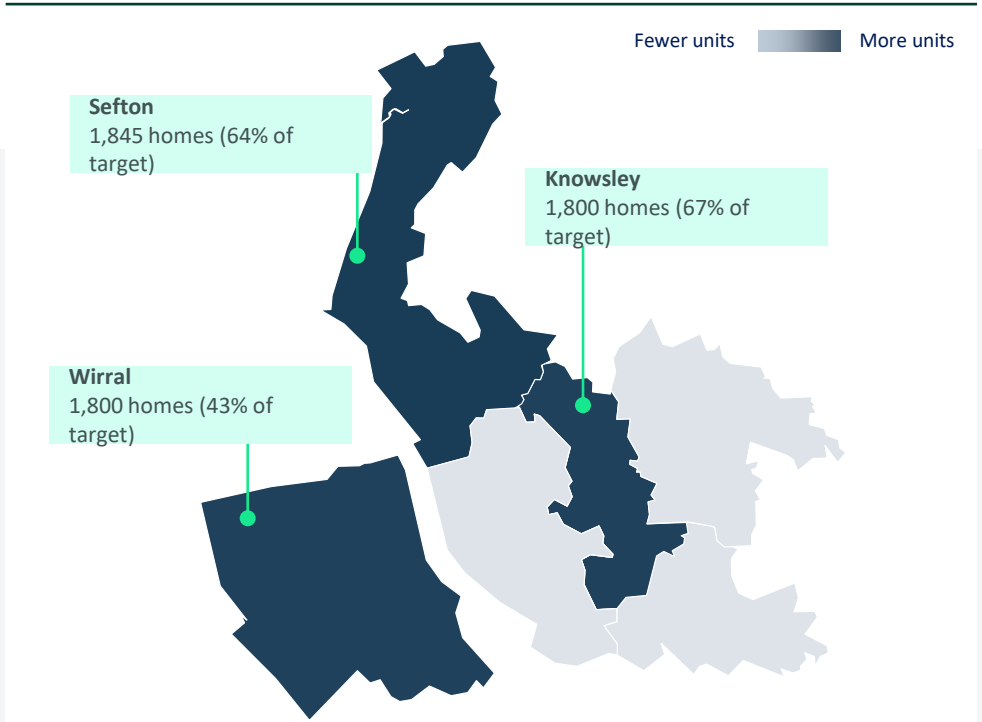
Total homes unlocked	...of which s106 homes
6,700	800

Average subsidy per unit	...of which public risk capital
£110,000	77%

EXTENDED RESULTS

Liverpool City Region

Units by combined authority 2027-2031



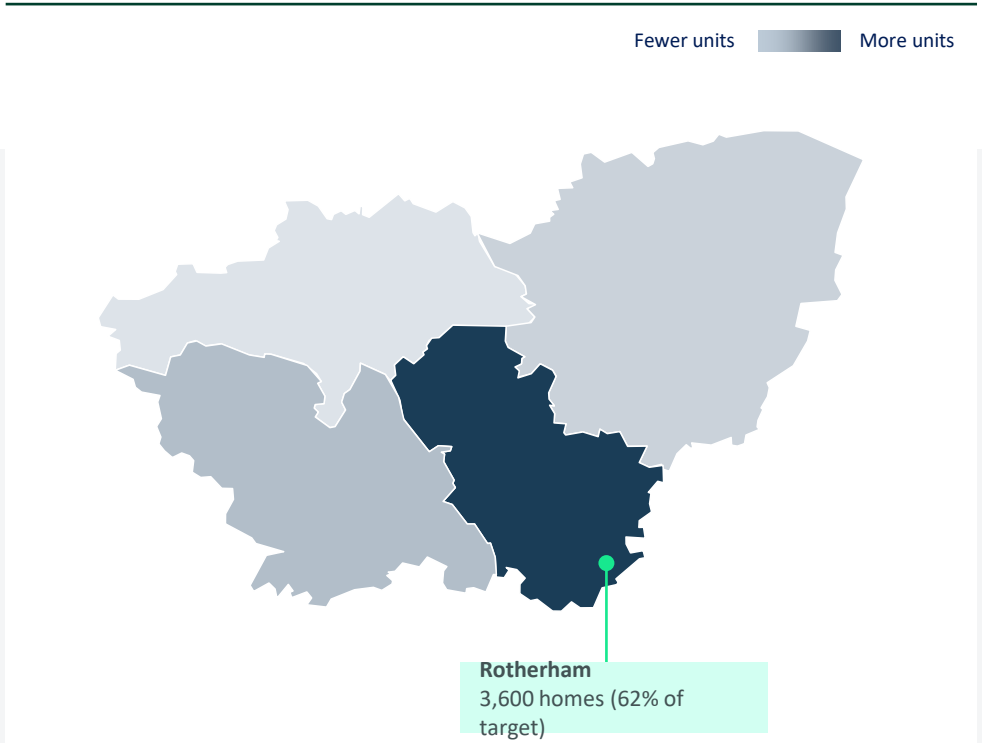
Source: CBRE; Mandala analysis.

Total public risk capital	**£400m**
Total public grant required	**£350m**
Total homes unlocked	**5,400**
...of which s106 homes	**600**
Average subsidy per unit	**£137,000**
...of which public risk capital	**53%**

EXTENDED RESULTS

In South Yorkshire, risk capital can make public grant go further and deliver a 4.4% return on investment

Units by combined authority 2027-2031



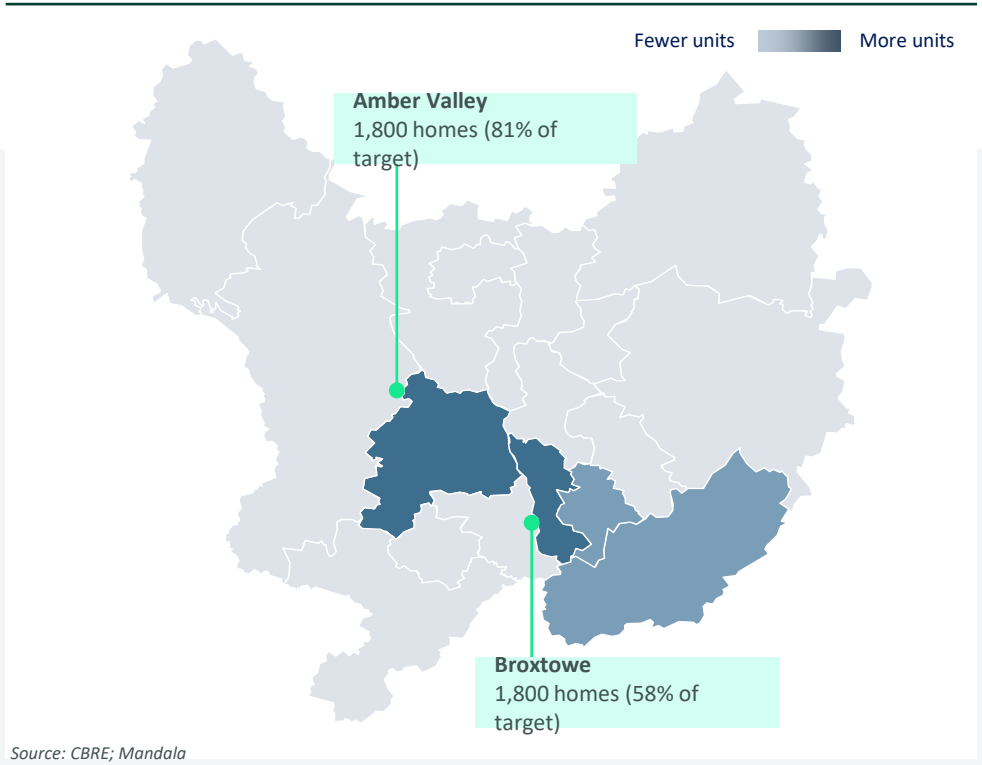
Source: CBRE; Mandala analysis.

Total public risk capital	£280m
Total public grant required	£220m
Total homes unlocked	3,900
...of which s106 homes	900
Average subsidy per unit	£129,000
...of which public risk capital	56%

EXTENDED RESULTS

In the East Midlands, where housing starts are already strong, risk capital can accelerate the pace of growth and deliver a 4.4% return on investment

Units by combined authority 2027-2031



Source: CBRE; Mandala analysis.

Total public risk capital	£490m
Total public grant required	£2.5m
Total homes unlocked	5,400
...of which s106 homes	800
Average subsidy per unit	£91,000
...of which public risk capital	99%

EXTENDED RESULTS

North East, Tees Valley, West of England, and York and North Yorkshire Combined Authorities

Units by combined authority 2027-2031

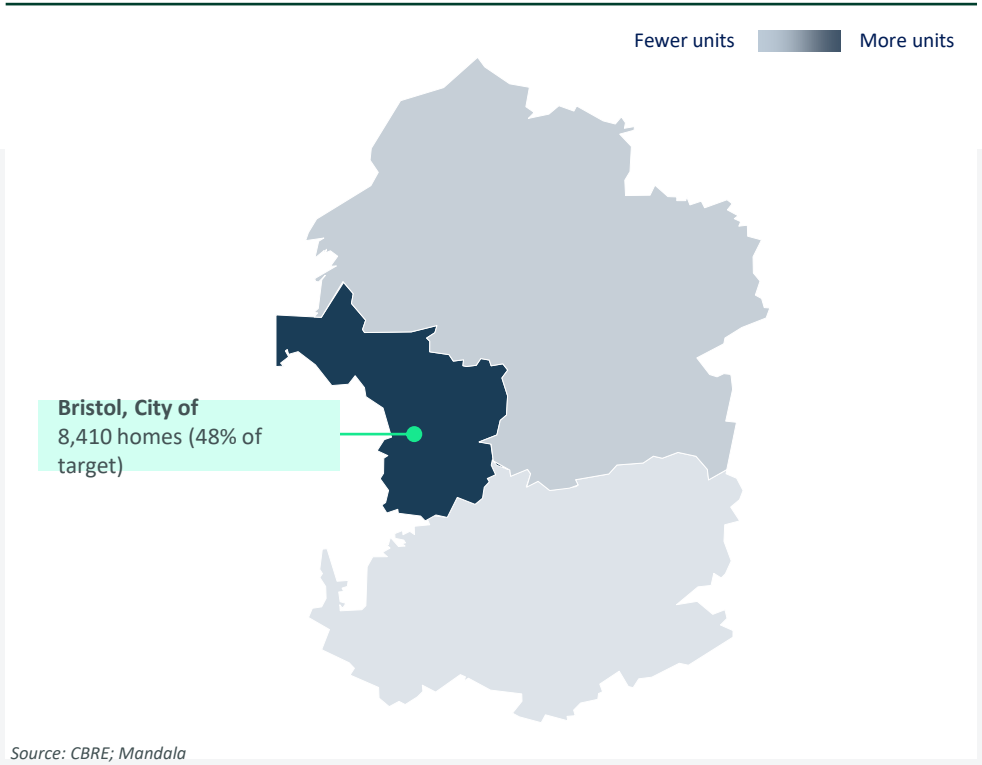
COMBINED AUTHORITY	PUBLIC RISK CAPITAL (£M)	PUBLIC GRANT (£M)	HOMES UNLOCKED	…OF WHICH SECTION 106	AVERAGE SUBSIDY PER UNIT (£K)	…OF WHICH RISK CAPITAL
North East	360	130	3,800	500	130	73%
Tees Valley	480	20	3,600	500	136	97%
West of England	450	40	8,500	1,700	58	92%
York and North Yorkshire	440	60	4,500	900	110	88%

Source: CBRE; Mandala analysis.

EXTENDED RESULTS

In the West of England, risk capital can significantly boost city housebuilding in Bristol and deliver a 4.4% return on investment

Units by combined authority 2027-2031



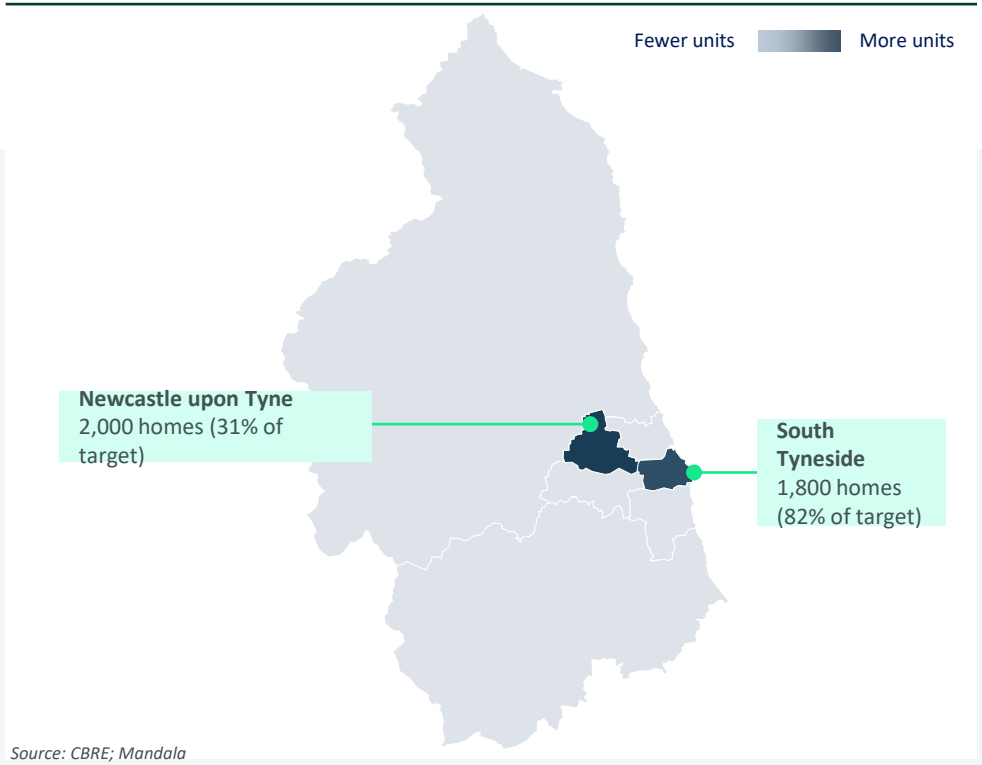
Source: CBRE; Mandala analysis.

Total public risk capital	£450m
Total public grant required	£40m
Total homes unlocked	8,500
...of which s106 homes	1,700
Average subsidy per unit	£58,000
...of which public risk capital	92%

EXTENDED RESULTS

In the North East, risk capital can significantly boost South Tyneside to deliver against its housing delivery target and generate a 4.4% return on investment

Units by combined authority 2027-2031



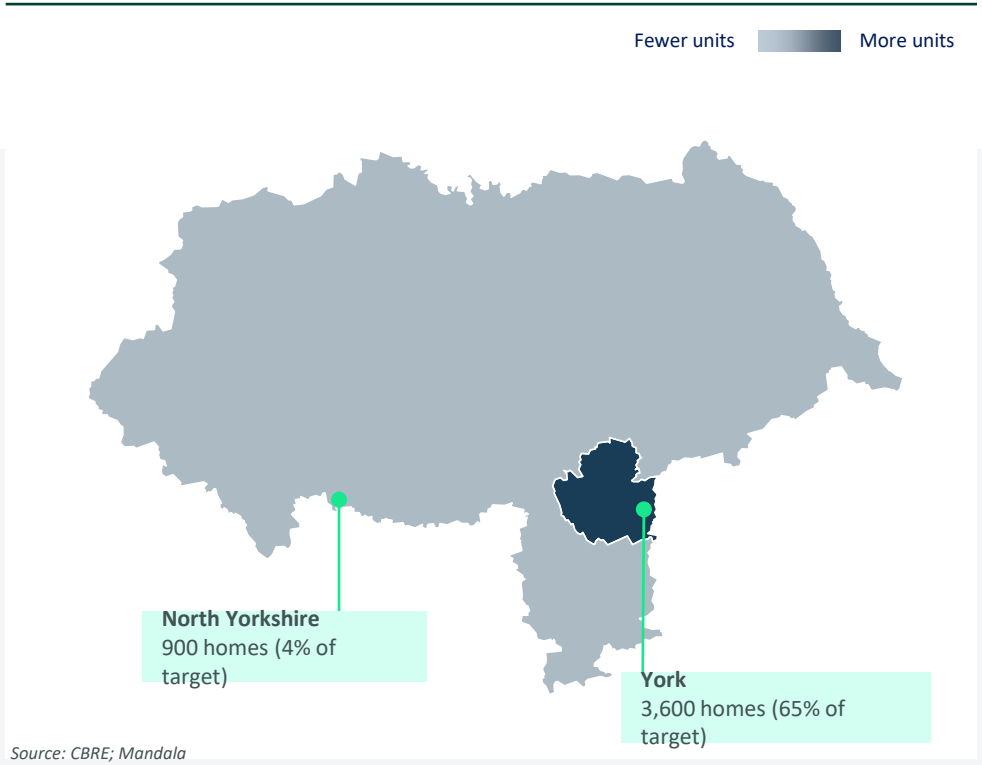
Source: CBRE; Mandala analysis.

Total public risk capital	£360m
Total public grant required	£130m
Total homes unlocked	3,800
...of which s106 homes	500
Average subsidy per unit	£130,000
...of which public risk capital	73%

EXTENDED RESULTS

York and North Yorkshire

Units by combined authority 2027-2031



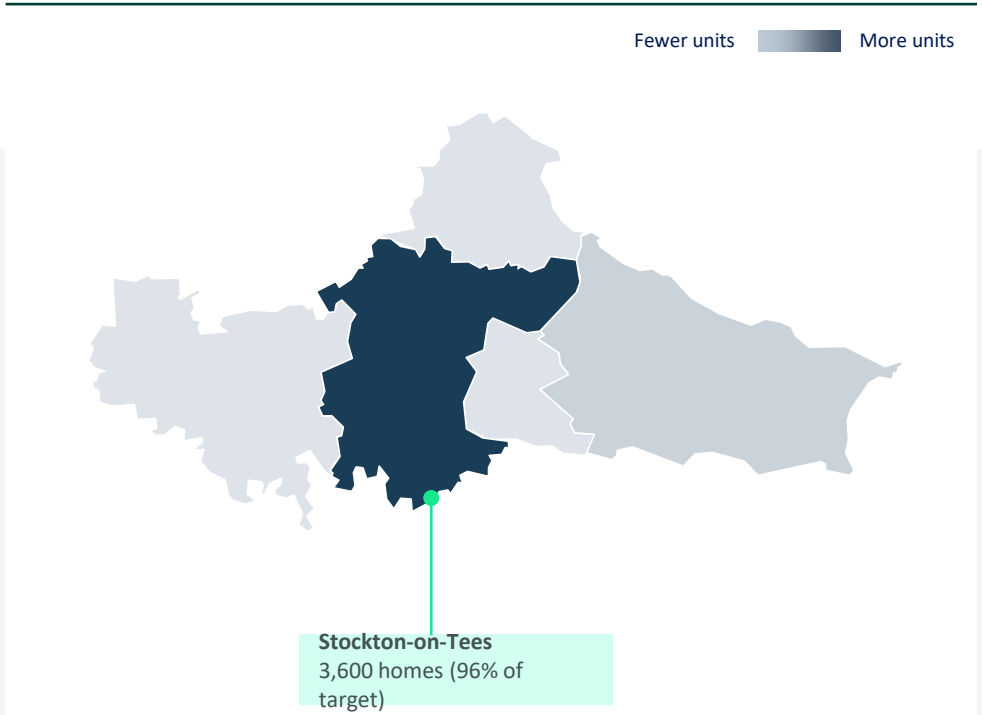
Source: CBRE; Mandala analysis.

Total public risk capital	£440m
Total public grant required	£60m
Total homes unlocked	4,500
...of which s106 homes	900
Average subsidy per unit	£110,000
...of which public risk capital	88%

EXTENDED RESULTS

In Tees Valley, risk capital can deliver nearly the entirety of Stockton-on-Tees' pipeline and meet its housing delivery test and a 4.4% return on investment

Units by combined authority 2027-2031



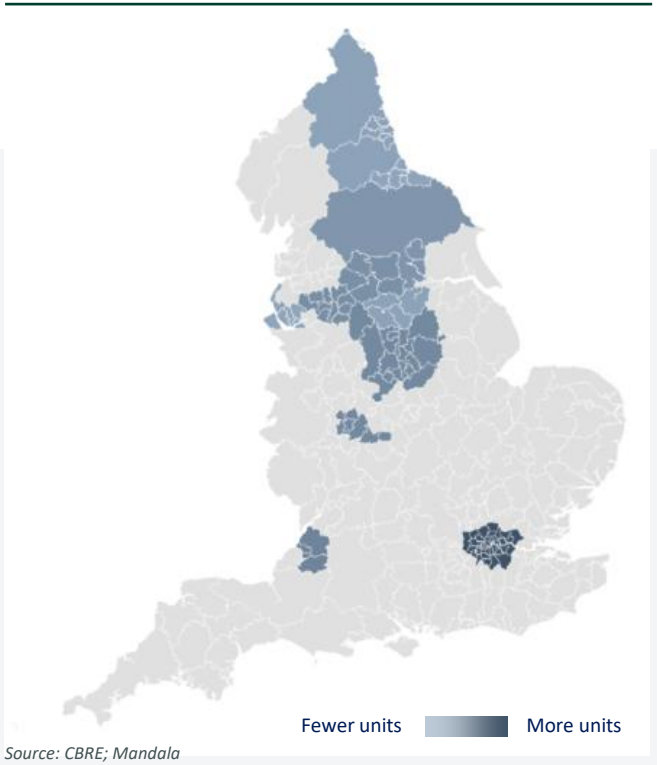
Source: CBRE; Mandala analysis.

Total public risk capital	£480m
Total public grant required	£20m
Total homes unlocked	3,600
...of which s106 homes	500
Average subsidy per unit	£136,000
...of which public risk capital	97%

EXTENDED RESULTS

City-region combined authority allocation, 0% return on capital

Units by combined authority 2027-2031



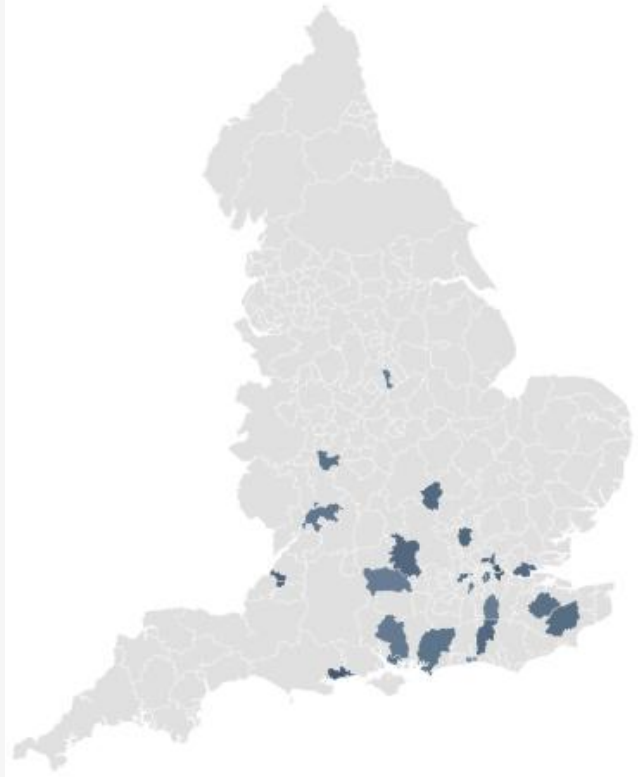
Source: CBRE; Mandala analysis.

COMBINED AUTHORITY	HOUSES	LOW-RISE APARTMENTS	MEDIUM-RISE APARTMENTS	HIGH-RISE APARTMENTS
East Midlands	8,100	70	0	0
Greater London	4,800	0	32,735	6,400
Greater Manchester	3,300	300	3,555	0
Liverpool	1,800	240	1,440	0
North East	3,600	200	0	0
South Yorkshire	3,600	250	0	0
Tees Valley	3,600	45	0	0
West Midlands	8,100	0	0	0
West Yorkshire	6300	425	0	0
West of England	7,800	675	915	0
York and North Yorkshire	5,400	100	120	0
Total England	**56,400**	**2,315**	**38,765**	**6,400**

EXTENDED RESULTS

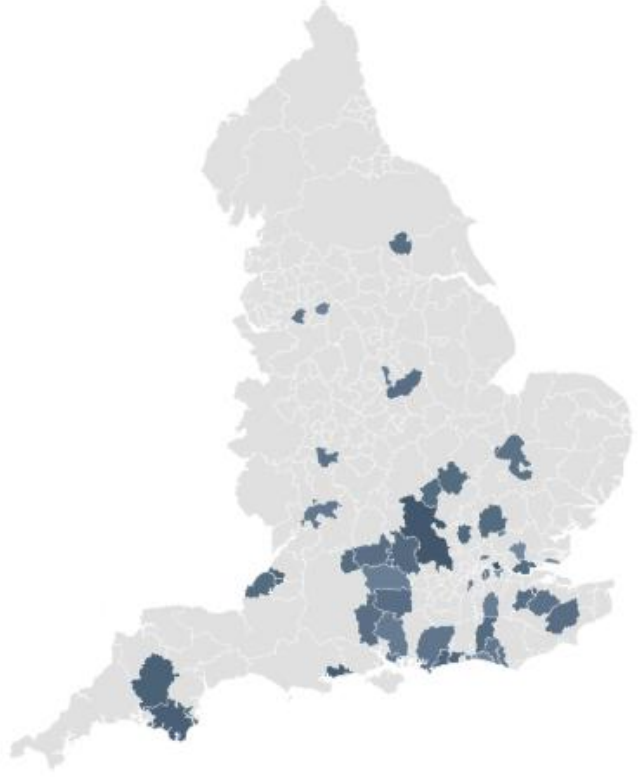
Taking a geographically agnostic approach to allocating risk capital can deliver significant housing, particularly across the South of England

Fewer units — More units



4.4% return units by typology and combined authority 2027-2031

Houses	67,200
Low rise	0
Medium-rise	49,325
High-rise	6,400
Total:	122,925



0% return units by typology and combined authority 2027-2031

Houses	163,950
Low rise	0
Medium-rise	27,285
High-rise	6,400
Total:	197,635

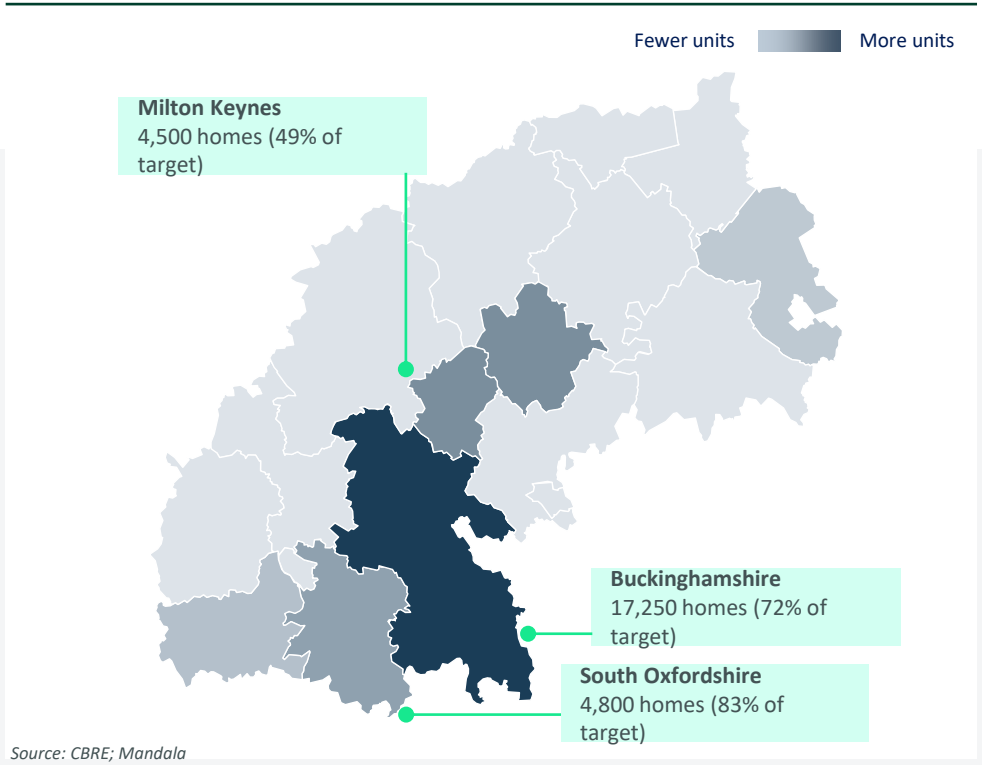
Source: CBRE; Mandala analysis.

The efficient allocation approach allocates funds by assessing the projects with the lowest unit per dollar of funding value across the entire country. Schemes are funded up to the proportion of the local authority housing target that has historically been attributed to that scheme's typology.

EXTENDED RESULTS

An agnostic allocation, at 0% return on investment, could unlock £20bn of private capital and 37,000 homes across the Oxford Cambridge corridor

Units by combined authority 2027-2031



Source: CBRE; Mandala analysis.

Total public risk capital	Total public grant required
£2.2bn	£20bn

Total homes unlocked	...of which s106 homes
37,000	c.7,000

Average subsidy per unit	...of which public risk capital
£60,000	100%

Appendix 2

Methodology

METHODOLOGY OVERVIEW

Accelerating housing delivery through risk capital approaches

The model assesses the financial feasibility of housing schemes across every local authority in England, identifies where and how much public capital is needed to make them viable, and allocates a fixed public budget against those opportunities to estimate the housing that can be unlocked.

Planning Model

Overview
Primary collation of the most up to date published five-year land supply for every English local planning authority (at December 2025) suggests they will be delivering collectively 310,000 homes per year across England.

Key Insight
Local planning authority five-year supply figures have little resonance with actual delivery rates. Year-on-year housing need is increasing around Greater London and the Core Cities, the country's economic engines of growth.

Viability Model

Overview
Tests the financial feasibility of representative housing schemes across every local authority and typology, determining where the market falls short and quantifying the public capital required to close the gap.

Key Insight
The viability of schemes varies materially by typology and geography, with a significant share requiring either equity support or outright grant to proceed.

Uplift Model

Overview
Classifies schemes by the type of intervention required, scales them against a historically-grounded development pipeline, and allocates the public budget across five years using a prioritisation structure.

Key Insight
Prioritising equity-viable schemes maximises the volume of housing unlocked per pound of public capital deployed.

CGE Model

Overview
Translates the direct housing outputs into broader economic impacts, capturing the effects on output, employment, and public finances of the modelled capital programme.

Key Insight
The indirect economic returns from the programme materially strengthen the case for public intervention beyond the headline housing contribution.

MODEL B

Viability Model Overview

The viability model determine how much public capital is needed for each scheme to be financially viable.

The viability model systematically tests the financial feasibility of every possible scheme type across every local authority in England, producing a comprehensive dataset of scheme-level costs and returns under consistent assumptions.

1 - Define scheme

Overview
For each local authority, a set of representative scheme types is constructed by combining housing typology with scheme size variants, capturing the range of development that could realistically come forward in that area.

Key Assumptions
House developments contain 120 units (25th percentile), 150 units (50th percentile), or 180 units (75th percentile).

2 - Determine Viability

Overview
Each scheme is assessed through a finance model that calculates whether the scheme stacks up commercially and, if not, how large the gap is between what the market will deliver and what is needed to make the scheme viable.

Key Assumptions
Public equity is assessed at rate of return of 4.4% and 0%.

3 - Extract Output

Overview
The key financial outputs for each scheme, including the public equity required are recorded into a single structured dataset, producing the complete scheme-level cost matrix that feeds into all subsequent uplift analysis.

Key Assumptions

MODEL B

Viability Model Overview

Four representative development types capture the range of viability challenges across England's residential market.

These developments are assessed across all local authorities. **Within each typology and tenure assumptions remain constant across base case and risk capital scenarios** to isolate the impact of public financing structure, not business model changes.




TYPICAL PROJECT METRICS	HOUSES	LOW-RISE DEVELOPMENT	MID-RISE DEVELOPMENT	HIGH-RISE DEVELOPMENT
No. Units*	150	75	200	300
End Product	For Sale	For Sale	Build to Rent	Build to Rent
Unit Type	3-Bed House	2-Bed Apartment	Apartment	Apartment
Tenure				
Private Sale	80%	80%	0%	0%
Private Rent	0%	0%	80%	80%
Affordable	20%	20%	20%	20%
Affordable Split				
Social Rent	50%	50%	0%	0%
Discounted Market Rent	0%	0%	100%	100%
Shared Ownership	50%	50%	0%	0%

1. Build-to-sell properties are constructed and sold on completion. Developer receives sales revenue within 1-3 years of project commencement, typically during years 2-3 as units complete. No long-term operational phase.

2. Build-to-rent properties are held and operated for rental income over a 35-year investment period before portfolio sale. Developer/operator receives ongoing rental revenue and capital gain on exit.

3 Construction timelines includes the Building Safety Regulator (BSR) which delays development for mid- and high-rise.

Source: CBRE; Mandala analysis.

MODEL B

Viability Model Overview – Base Case

Assumptions across costs, revenues, and financing are held constant to isolate the effect of different capital structures

FUNDING SPLIT	HOUSES	LOW-RISE DEVELOPMENT	MID-RISE DEVELPMENT	HIGH-RISE DEVELOPMENT
Forward by Private Capital	0%	0%	100%	100%
Debt Amount	60% LTV	60% LTV	0%	0%
Remaining Costs				
Developer Equity	100%	100%	0%	0%
Private Capital	0%	0%	0%	0%
Public Sector Capital	0%	0%	0%	0%
Drawdown of Costs Order				
First	Developer Equity	Developer Equity	Forward Fund	Forward Fund
Second	Development Senior Debt	Development Senior Debt		
Third				
Revenue Repayment Order				
First	Debt	Debt	Forward Fund	Forward Fund
Second	Developer Equity	Developer Equity		
Third				
Target Rates of Return				
Development Management Fee	0.00%	0.00%	n/a	n/a
Developer Profit	10.00% profit on cost	10.00% profit on cost	10.00% profit on cost	10.00% profit on cost
Senior Debt Benchmark	Floating SONIA	Floating SONIA	n/a	n/a
Senior Debt Margin	3.50% - 4.50% depending on region	3.50% - 4.50% depending on region	n/a	n/a
Developer Equity Return	12.00% IRR	12.00% IRR	n/a	n/a
Private Capital Return	n/a	n/a	n/a	n/a
Public Sector Return	n/a	n/a	n/a	n/a

MODEL B

Viability Model Overview – Risk Capital Case

(two scenarios: Gilts Rate and 0% IRR)

Assumptions across costs, revenues, and financing are held constant to isolate the effect of different capital structures

FUNDING SPLIT	HOUSES	LOW-RISE DEVELOPMENT	MID-RISE DEVELPMENT	HIGH-RISE DEVELOPMENT
Debt Amount	60% LTV	60% LTV	60% LTV	60% LTV
Remaining Costs				
Developer Equity	Goal Seek Split	Goal Seek Split		
Private Capital			Goal Seek Split	Goal Seek Split
Public Sector Capital	Goal Seek Split	Goal Seek Split	Goal Seek Split	Goal Seek Split
Drawdown of Costs Order				
First	Public Sector Capital	Public Sector Capital	Public Sector Capital	Public Sector Capital
Second	Developer Equity	Developer Equity	Developer Equity	Developer Equity
Third	Senior Debt	Senior Debt	Senior Debt	Senior Debt
Revenue Repayment Order				
First	Senior Debt	Senior Debt	Senior Debt	Senior Debt
Second	Developer Equity	Developer Equity	Developer Equity	Developer Equity
Third	Public Sector Capital	Public Sector Capital	Public Sector Capital	Public Sector Capital
Target Rates of Return				
Development Management Fee	0.00%	0.00%	0.00%	0.00%
Developer Profit	10.00% profit on cost	10.00% profit on cost	10.00% profit on cost	10.00% profit on cost
Senior Debt Benchmark	Floating SONIA	Floating SONIA	Floating SONIA	Floating SONIA
Senior Debt Margin	3.50% - 4.50% depending on region	3.50% - 4.50% depending on region	3.50% - 4.50% depending on region	3.50% - 4.50% depending on region
Developer Equity Return	12.00 IRR	12.00 IRR	n/a	n/a
Private Capital Return	n/a	n/a	12.00 IRR	12.00 IRR
Public Sector Return*	0.00% IRR and 4.40% IRR	0.00% IRR and 4.40% IRR	0.00% IRR and 4.40% IRR	0.00% IRR and 4.40% IRR

MODEL C

Uplift Model overview

The uplift model allocated public equity is the most capital efficient schemes until the £8.5bn budget has been expended.

1 - Classify schemes

Overview
Each scheme is evaluated against its financial outputs to determine whether it can proceed without public support, whether it requires only a public equity injection to become viable,

Key Assumptions

2 – Build Pipeline

Overview
Historical completions data and local housing targets are used to estimate how many schemes of each type could realistically come forward in each local authority, producing a constrained pipeline.

Key Assumptions
The volume of schemes modelled in each local authority reflects the observed historical mix of development by housing type, ensuring the pipeline is grounded in demonstrated delivery capacity rather than theoretical demand.

3 – Allocate Budget

Overview
Schemes are ranked by capital efficiency, prioritising those that need only equity and the available budget is deployed annually, with the full opportunity set refreshing each year to reflect new development coming forward.

Key Assumptions
Budget is only allocated to schemes that are viable with public equity. Schemes also requiring public grants to be viable are not allocated capital.

Source: CBRE; Mandala analysis.

MODEL D

The General Equilibrium Model Overview

SCENARIOS (INPUTS)

1

Future without proposed housing uplift (baseline)

The status quo of the economy[1]

2

Future with proposed housing uplift

The model calibrates the economic scenarios:

- **Case 1:** Investment uplift with 0% public equity return
- **Case 2:** Investment uplift with 4.4% public equity return

G-CUBED MODEL[2]

- **A multi-country, multi-sector dynamic model** of the global economy with sophisticated econometric estimation. Accounts for both direct, indirect and offsetting effects
- **A general equilibrium model** which models flows of capital, jobs and economic activity as it moves between different sectors of the economy and between economies
- **Used widely by macroeconomists,** including the IMF and other commercial and central banks

Key agents in the model:

1. Firms

Firms across **20 sectors**, including construction generation, electricity and services

2. Households

Households make economic decisions about e.g., consumption and labour supply

3. Government

Governments spend money on goods and transfer payments, and receive tax revenue

4. Central bank

Central banks make decisions about e.g., exchange rate, interest rate and inflation targets

G-CUBED OUTPUTS

Aggregate economic activity (GDP) across the economy

Cumulative GDP uplift from public and private investment

Aggregate jobs across the economy

Direct and indirect jobs supported in the economy

1 Scenario with no public equity intervention. 2 G-Cubed (2025) G-Cubed model 20U.

Source: OBR (2026) Economic and fiscal outlook; OBR (2025) Long-term economic determinants; ONS (2026) Gross Domestic Product; CBRE; Mandala analysis.

Thank you.

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