

Homes England – Measuring Social Value

Paper 8: Measuring the Placemaking Impacts of Commercial-led Regeneration

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Table of Contents

List of Abbreviations	4
1. Foreword	5
2. Executive Summary	6
3. Research aims	9
4. Approach	11
5. Findings.....	18
6. Conclusion.....	24

List of Abbreviations

Abbreviation	Full Term
ESF	Eigenvector Spatial Filtering
FHSF	Future High Street Fund
MHCLG	Ministry of Housing, Communities and Local Government
OLF	Outer London Fund
PCA	Principle Components Analysis
VOA	Valuation Office Agency

1. Foreword

Within our Strategic Plan we have set ourselves the mission of driving regeneration and housing delivery, to create high-quality homes and thriving places. This will support greater social justice and the creation of places people are proud to call home. An integral part of achieving this mission will be our ability to understand the impact we are having in places, not just in terms of the outputs we deliver but the wider social value of our activity and that of our partners.

As a government agency, we are committed to investing public funds where they will deliver the greatest social value. Understanding and being able to assess the broader effects of regeneration, including in the context of commercial-led development, is integral for us to be able to deliver against this commitment. However, there is minimal substantive research on the impact of commercial-led regeneration in terms of its wider placemaking effects.

To improve our understanding in this area, we have commissioned research to assess the placemaking impacts of commercial-led regeneration, building on a previous study on [residential placemaking](#). This is the eighth research paper in our series on the measurement of social value – the other papers in the series can be found [here](#).

Modelling impacts on commercial property has proved more challenging than residential property due to the relative lack of available data. However, despite the limited number of available case studies, the results of the research do provide some important insights into the wider impacts and additionality of commercial development schemes with placemaking objectives.

The study found that, for the majority of the schemes analysed, there was no consistent evidence of commercial-led regeneration leading to wider placemaking effects. Where there was consistent evidence of spillover effects, this was within a much more localised area in comparison to the findings of the residential placemaking research. However, the study did find that the level of local property market displacement associated with the majority of the case studies was relatively low.

Given the data constraints and limited number of case studies, it has not been possible to reach broad conclusions about the type of schemes likely to generate placemaking impacts and the scale of these effects. However, the research provides supporting evidence of the possible positive role commercial-led development can play in delivering regeneration and that local property market displacement effects can potentially be mitigated through development with clear placemaking objectives.

I would like to thank AMION Consulting who led the research and colleagues at Homes England and MHCLG for their input to the work.

Andy Wallis

Chief Economist, Homes England

2. Executive Summary

Background

1. This study focuses on understanding the potential placemaking or wider area impacts of commercial-led regeneration¹. It builds on a previous study Homes England commissioned from AMION Consulting to measure the placemaking effects of housing-led regeneration², along with earlier research for the now Ministry of Housing, Communities and Local Government (MHCLG) investigating the additionality of supply side housing interventions³. The results of both of these research studies have been incorporated into the 2025 MHCLG Appraisal Guide.

Research aims and approach

2. The aims of the research were to:
 - examine the relationship (if any) between public sector supported commercial-led development and public realm projects with placemaking objectives, and post-intervention trends in commercial rental levels in adjacent areas over and above local growth; and
 - identify the implications of the findings for regeneration policy and practice, in particular in relation to economic appraisals.
3. The methodology applies a hedonic pricing framework⁴, based on achieved rental levels, which utilises distance-based rings around the intervention and compares these with an outer (control) ring.
4. Where the public sector supports commercial-led development and public realm projects with placemaking objectives that consequently have a positive effect on rents in the local area, this can be considered to be a positive spillover (or placemaking) effect⁵. Higher rents in the local area would increase the viability of new commercial development. If lower rental levels result, these could lead, through the price mechanism, to a reduction in new supply due to reduced development viability (i.e. a displacement effect⁶).
5. An initial set of 24 public sector supported commercial/mixed use and town centre improvement schemes were identified for further scrutiny. However, due to data limitations, insufficient pre- and post-intervention information, and difficulty isolating sites from surrounding developments, the final round of modelling was restricted to 11 sites. The research involved 396 model runs on these shortlisted sites⁷.
6. The rental data used was extracted from the CoStar property database. Achieved rental data was employed rather than sales (capital values) due to the larger number of observations. The potential to use CoStar data to assess occupancy/vacancy rates was also explored, but sufficient robust local area information was not available.

¹ Commercial-led regeneration is defined for the purposes of this study as the process of improving the physical/environmental, social and economic characteristics of a commercial site or area

² <https://www.gov.uk/government/publications/measuring-the-placemaking-impacts-of-housing-led-regeneration>

³ <https://www.gov.uk/government/publications/the-additionality-of-housing-supply-interventions>

⁴ Hedonic pricing is a form of revealed preference valuation that uses data from related surrogate markets and econometric techniques to estimate a value for a good or service (HMT Green Book p.127).

⁵ Spillover is a well-established term economists use to identify impacts beyond the target development area which thereby 'spillover'.

⁶ Defined as the level of outputs/outcomes (occurring under the counterfactual and the intervention options) accounted for by reduced outputs/outcomes elsewhere in the target area.

⁷ 'Model runs' refers to the process of empirically assessing how individual commercial-led regeneration schemes have impacted on property values, controlling for other impacts over time. This includes the use of several distance-based ring models, different property types and a number of different spatial boundaries for each of the identified case studies. Different models were run to test for consistency across a series of different impact and control area ring combinations and for both the full sample and industry/office subsets.

7. This study focuses on the impact of commercial-led developments and public realm projects with placemaking objectives on commercial values in the surrounding area. While it would also be possible to assess the effects of such schemes on nearby house prices, these effects were excluded to ensure transparency around impacts and to avoid double counting with the effects of housing-led regeneration schemes, which were addressed separately in the earlier placemaking research. Similarly, it may also be useful to investigate whether residential developments affect local commercial values. These are potential areas for further study.

Findings

8. Overall, the research found that:
- for just over half of schemes (55% - 6 out of 11), there was no consistent evidence of external price impacts. Consistent evidence of only lower rents was identified in 18% of cases and higher rents (indicating potential placemaking) effects also in 18% of cases. One case study had both negative and positive effects in different distance-based rings. In comparison, the earlier housing focused additionality research for MHCLG, found that 38% of cases had price reductions and 44% price increases, albeit based on a significantly larger sample of schemes;
 - spillover effects, where identified, occurred over a relatively short spatial area – some impacts extended to 400m and others to 800m. This is a much more localised effect than previously identified for residential schemes;
 - negative rent effects (where there were consistent negative spillover models) were typically between 15% - 30% lower than in the control area; and
 - positive gain rates, where identified, were in the range 10% - 25%.
9. Models by office and retail use were more difficult to assess compared to the full model (which included all property types) because of the lower number of observations and how they also displayed a variable set of outcomes.
10. Modelling impacts on commercial property has proved more challenging than residential property due to the relative lack of available data. However, despite the limited number of case studies, the results do provide some important insights into the additionality⁸ of commercial development and public realm schemes with placemaking objectives.
11. For example, a statistically significant negative price movement would indicate that demand for other properties in the local area has been reduced and, if the adjustment is large enough, could also mean that other new developments were less commercially viable and may not go ahead. In this case, there would be displacement effects.
12. The modelling results indicate that:
- in over 73% of cases there is no consistent evidence of a net negative local price impact and thus local property market displacement was not evident; and
 - in relation to 27% of developments, there is some negative price impact and therefore displacement was likely to have occurred.
13. This analysis suggests that the level of local property market displacement associated with the majority of case study projects is relatively low. The local place-based impacts of projects has been given increased emphasis in

⁸ Additionality can be defined as the extent to which an activity and/or its results take place at all, on a larger scale, earlier or within a specific designated area or target group as a result of the intervention.

the recent Green Book Review⁹. However, it is important to note that the case study schemes were selected because they were anticipated to have positive placemaking impacts. More 'standard' commercial schemes may have higher levels of local property market displacement.

14. The modelling results also show that in two cases (18%) there was consistent evidence of price increases and no negative effects, indicating that there were positive net placemaking impacts on adjacent rental values. One of these schemes was a public realm project (Golden Square Birmingham) and other the transformational MediaCity scheme in Salford.
15. That said, even where consistent evidence of price increases is not evident, it is not to say that there are no positive placemaking effects. This may be due to instances where positive placemaking effects are partially mitigating displacement effects. In turn, this may also provide some explanation as to why the analysis identifies a relatively low level of local property market displacement, as noted above.

⁹ [Green Book Review 2025.pdf](#)

3. Research aims

16. The HM Treasury Green Book¹⁰ highlights the need to consider all significant costs and benefits (or overall social value) associated with public sector interventions in considering investment decisions. The recent MHCLG Appraisal Guide¹¹ notes that, *‘social value includes all costs and benefits that affect the welfare and wellbeing of the UK population.*
17. *These may arise through:*
- *changes in the level of goods and services produced by firms, the public sector or third sector; and*
 - *from the indirect impacts on workers, families and communities of an intervention not measured through the market (called externalities)’.*
18. Robust evidence about the monetisation of external social welfare impacts in relation to regeneration and housing has historically been very limited, which has led to Homes England implementing a research programme aimed at improving this evidence base.
19. Homes England previously commissioned research from AMION Consulting to assess the placemaking impacts of housing-led regeneration. AMION’s residential placemaking research adopted a quasi-experimental¹² approach to the assessment of price impacts in areas adjacent to regeneration activities. Overall, the study found that, on average, housing-led regeneration projects are likely to have a positive wider placemaking impact on the surrounding area, which can be assessed through net house price effects.
20. There is minimal substantive research into the wider external impact of commercial¹³ development on local property values, including little in the way of evidence as to whether development enhances or reduces such values and, if so, the magnitude of any such impact. The absence of such research is related to both the lack of suitable analytical tools and commercial property datasets.
21. Homes England therefore appointed AMION to explore options for addressing this shortfall and to assess the empirical basis for assessing whether commercial development projects have a statistically significant impact on the values of adjacent commercial properties.
22. The aims of the research were to:
- examine the relationship (if any) between public sector supported commercial-led development and public realm projects with placemaking objectives and post intervention trends in commercial rental levels over and above local growth; and
 - identify the implications of the findings for regeneration policy and practice, in particular in relation to economic appraisals.
23. It would also be feasible to assess the impact (if any) of these schemes on house prices nearby. However, for reasons relating to transparency of impacts and in order to ensure no double counting with housing-led regeneration schemes (as assessed in the earlier placemaking impact of housing-led regeneration schemes), the impact on nearby house prices was not included in this research. Furthermore, it would be feasible to explore

¹⁰[The Green Book \(2022\) - GOV.UK](#)

¹¹<https://www.gov.uk/government/publications/the-mhclg-appraisal-guide/the-mhclg-appraisal-guide> - Paragraph 3.3.

¹² An approach seeking to get as close to experimental random control conditions as is possible.

¹³ Property that is used for business activities including offices, shops and factories.

whether residential developments impact on commercial values in the local area¹⁴. These are potential areas for further research.

24. It is important to note that the previous modelling of house price changes attributable to supported developments identified that both higher and lower prices had arisen in surrounding areas. Reduced prices arising from increased supply might, via the price mechanism, potentially reduce (i.e. displace) future supply. An appropriate deduction in additionality is usually made for this effect. In contrast, increases in local area property values may indicate higher demand and an enhancement of the areas' attractiveness for developers. Such 'placemaking' or 'positive spillover' effects are treated as wider benefits rather than as part of the additionality assessment.

¹⁴Initial exploratory modelling was undertaken of four housing-led regeneration projects and positive commercial price effects were identified close to the developments.

4. Approach

Overview

25. This research builds on the previous study undertaken by AMION for Homes England to measure the placemaking impacts of housing-led regeneration, along with the earlier research for MHCLG investigating the additionality of supply side housing interventions. The results of both of these studies have been incorporated into the 2025 MHCLG Appraisal Guide.
26. The methodology used for this research replicates that used to assess residential placemaking impacts and is based on identifying the contribution of property characteristics to price transactions alongside a range of location and amenity influences also considered likely to contribute to market value. However, the volume of such transactions is significantly lower for commercial property than for domestic property and the absence of data has traditionally acted as a constraint.
27. Extending the methodology to assessing commercial development impacts on commercial property values provides a parallel perspective to the earlier work (which assessed residential development impacts on residential property prices). As noted above, additional future research could potentially explore cross-market interactions such as commercial development impacts on residential property values, or vice versa.

Case study selection

28. A key initial task was to select and review a longlist of case study projects in order to identify a shortlist for econometric modelling. Two project typologies were defined as follows:
 - Homes England/Regional Development Agency/other public supported commercial-led schemes with placemaking objectives; and
 - town centre improvements (public sector funded).
29. A longlist of over 100 potential case study projects was identified. A sifting and selection process was carried out to identify a shortlist for detailed research, based on the following criteria:
 - geographical spread by region;
 - type of area;
 - scale of project;
 - primary use (office or retail); and
 - the availability of previous research.
30. A final test was subsequently applied using Valuation Office Agency (VOA) ratings data to ensure that there were sufficient commercial properties close to the case study project site to provide adequate data observations for econometric analyses.
31. The identification of a longlist and shortlist of potential case study projects proved much more challenging than envisaged. This was due to three reasons in particular:

- for much of the period of interest (primarily focused on the years 2000 to 2018 because of data availability and the need for a period after completion of the development), the public sector was not focused on supporting commercial-led regeneration projects;
 - similarly, the focus on supporting town centre improvement schemes only emerged as a policy priority towards the end of the period with the creation of initiatives such as the Future High Street Fund (FHSF) in 2018; and
 - in many cases, town centre improvements formed part of wider development schemes which did not involve public sector support.
32. Furthermore, several major schemes identified as potential case studies are still ongoing. In some cases, where phases of major developments had been completed these were included as potential case studies. For example, this was the case for the Snow Hill and Paradise developments in Birmingham.
33. Based on the case study selection process, an initial set of 24 sites were identified for more detailed modelling scrutiny:
- **North:**
 - Altrincham Market, Blackburn Cathedral Quarter, Hull Fruit Market, Concert Square Liverpool, Liverpool One, St. Pauls Square Liverpool, Spinningfields Manchester, Newcastle Helix, MediaCity Salford, Salford Central, and Winter Garden Sheffield.
 - **Midlands:**
 - Brindley Place Birmingham, Centenary Square Birmingham, Golden Square Birmingham, Paradise Birmingham, Snow Hill Birmingham, and Wolverhampton Interchange.
 - **South East/West:**
 - Bristol Temple Meads, Barking, Hounslow, Kingston, Kings Cross, Millbay Plymouth, and White River St. Austell.

Model structure

Overview

34. There was no template for the analysis undertaken in this study. As noted earlier, a lack of research exists into the potential relationships between commercial developments with placemaking objectives and commercial property prices/rents in the vicinity of such developments.
35. The starting point lay in the independently and academically reviewed, and MHCLG accepted, quasi-experimental methodology previously deployed to assess the placemaking impacts of housing-led regeneration across a sample of Homes England funded schemes.
36. In essence, the methodology compares changes in commercial property values in the vicinity of completed commercial developments, with changes in values of commercial properties located further away which are

unlikely to have been affected pre- and post-development. As such the core modelling involves empirical analysis to isolate the impact of commercial property values, controlling for other impacts over time¹⁵.

37. Vacancy rates provide an alternative metric to rents and are likely to be an early indicator of impact in areas that are deprived/blighted. However, robust micro-level, longitudinal vacancy data is difficult to obtain and does not provide a viable basis for analysis¹⁶.

CoStar data

38. The commercial property dataset used in this analysis was extracted from the CoStar property database. CoStar data is sourced a wide range of sources¹⁷. Alongside sale price/rental values, the database provides information on age (year built), floorspace, numbers of floors, quality (star ratings)¹⁸, activity/use, investor characteristics and geolocation¹⁹.
39. In terms of the study exercise, and after testing both options, the focus was on rental rather than sale (capital) property values. This was primarily due to the larger sample sizes available in the rental datasets. Whilst CoStar classifies rent values as either achieved, asking or effective, achieved rents were used to ensure only actual rental outcomes were modelled. The potential to use CoStar data to assess occupancy/vacancy rates was also explored, but sufficient robust local area information was not available.

Sample frame

40. Two initial rounds of modelling were undertaken to assess the viability of the datasets. In the first round, all of the candidate sites were modelled in terms of sale price. This involved running 900 models across 25 schemes (including a combined Outer London Fund (OLF)²⁰ model), 12 distance-based ring models with full/retail/office options, and with spatial boundaries extending out to 2km/3km. This process confirmed that any identified impacts were mostly localised within 1km and also revealed small sales sample sizes for many of the developments that were likely to compromise the modelling.
41. In the second round, all of the identified sites were remodelled in terms of achieved rental value - 900 models once more run with spatial boundaries extending out to 2km/3km. The rental samples were generally larger than

¹⁵The modelling approach involves regressing the (log) rent (per sq ft) of commercial property values in the vicinity of commercial developments on a vector of property and location (amenity) characteristics. Added to these are ring location variables and a post-completion indicator which takes a unit value after scheme completion and zero otherwise. Year variables are included to control for broader macroeconomic trends common to local areas, with location fixed effects introduced to account for time-invariant location characteristics. Standard errors have also been clustered on postcodes to account for potential serial correlation in the error term. Ahlfeldt and Kavetsos (2014) outline the basis of the specification

¹⁶The major requirements for analysis are longitudinal data over a sustained period-of-time encompassing both pre and post development periods and a range of property characteristics. This rules out datasets such as VOA rateable value data which are available only intermittently and other proprietary datasets which do not report on property characteristics.

¹⁷The sources include direct research and data collection, public and government records, brokerage and industry partnerships, digital and online data, imagery and geospatial data, and tenant and market intelligence.

¹⁸The CoStar Building Rating System uses a 5-star scale to evaluate commercial buildings based on their quality and features:

- **5 Stars:** Exceptional quality, featuring top-tier design, construction, and amenities. These buildings often have premium finishes, advanced technology, and prime locations.
- **4 Stars:** High-quality buildings with excellent design and construction. They may lack some of the premium features of 5-star buildings but still offer superior amenities and functionality.
- **3 Stars:** Average quality, providing standard design and construction. These buildings meet the basic needs of tenants but may not have standout features or finishes.
- **2 Stars:** Below-average quality, often older buildings with limited amenities and less desirable locations. They may require significant updates or renovations.
- **1 Star:** Basic or minimal quality, typically older buildings with significant wear and tear. These buildings may lack modern amenities and require substantial improvements.

¹⁹Not all of these characteristics are available for both sale/rental properties.

²⁰Three of the schemes were part of the Outer London Fund (OLF) programme – Barking, Hounslow, and Kingston. The OLF was launched in June 2011, and was a three-year initiative dedicated to strengthening the vibrancy of London's high streets and town centres and included various public realm improvement projects.

the sale price samples by a factor of 3 to 5, thus making rentals a more suitable basis of analysis. This process again confirmed that any identified impacts were mostly localised and within 1km. However, the analysis also pointed to a number of limiting issues:

- sample size restrictions:
 - model structures are complex with a moderately extensive set of parameters. There was insufficient rental data to model some schemes and avoid overfitting²¹.
- timeline restrictions:
 - CoStar rental dataset coverage is generally more reliable after the year 2000. However, some schemes had completion dates either prior to this point or early into this period, generating insufficient observations to establish a pre-intervention trend.
- separation issues:
 - a number of sites proved either too difficult to isolate from surrounding developments restricting separation of impacts or were developed over a prolonged time period leaving little time for impact assessment.

42. Table 1 outlines the initial set of schemes and filtering action in the light of the issues identified above. The final round of modelling thereby was ultimately restricted to 11 sites and 396 model runs.

²¹'Overfitting' is a technical term which represents a situation where a model begins to describe random error in the data rather than relationships between variables. It typically occurs when a model is too complex for the dataset being investigated.

Table 1: Initial Study Schemes and Filtering Action

Scheme	Location	Scheme Type	Action
Altrincham Market	Altrincham	Commercial	Insufficient Observations
Cathedral Quarter	Blackburn	Commercial	Insufficient Observations
Brindley Place	Birmingham	Commercial	Modelled
Centenary Square	Birmingham	Public Realm	Modelled
Golden Square	Birmingham	Public Realm	Modelled
Paradise	Birmingham	Commercial	Modelled
Snow Hill	Birmingham	Commercial	Modelled
Temple Meads	Bristol	Commercial	Modelled
Fruit Market	Hull	Commercial	Insufficient Observations
Concert Square	Liverpool	Public Realm	Insufficient Observations*
Liverpool One	Liverpool	Commercial	Modelled
St Paul's Square	Liverpool	Commercial	Modelled
Barking	London	Public Realm	Insufficient Observations
Hounslow	London	Public Realm	Insufficient Observations
Kings Cross	London	Commercial	Separation Issues
Kingston	London	Public Realm	Insufficient Observations
Spinningfields	Manchester	Commercial	Modelled
Helix	Newcastle	Commercial	Modelled
Millbay	Plymouth	Commercial	Separation Issues
White River	St Austell	Commercial	Insufficient Observations
MediaCity	Salford	Commercial	Modelled
Salford Central	Salford	Mixed	Separation Issues
Winter Garden	Sheffield	Commercial	Insufficient Observations*
Interchange	Wolverhampton	Commercial	Insufficient Observations
* Scheme completion too early for analysis			

Rings

43. In line with the earlier residential analysis, prior to this study, there was little to no evidence of the likely area of impact. While the residential study adopted a protocol linking impact area to scheme size, it was less clear that this approach would operate effectively in the case of commercial property.
44. Existing evidence in relation to transport hubs, for example, suggests that commercial property price/land value impacts are more spatially bounded than residential impacts, extending out to hundreds of metres rather than a few kilometres²².
45. Therefore, the analysis applied a series of models with different ring sizes. The smallest ring width was 200m across, the largest was 400m across. Impacts reported in one ring-size model could then be checked against impacts in the other ring-size models for consistency. As in the residential study, rings are defined such that:
- Ring 1 broadly references the footprint of the development itself. The size of this area varies depending on the size of the development footprint (red line boundary).
 - Ring 2 is defined as including all transactions within a ring of the development (ring width is dependent on the model applied) but not included within the footprint of the development²³.

²²E.G. Debrezion G, Pels E and Rietvald P, (2007) The Impact of Railway Stations on Residential and Commercial Property, A Meta-Analysis, Journal of Real Estate Finance and Economics, 35, 161-180.

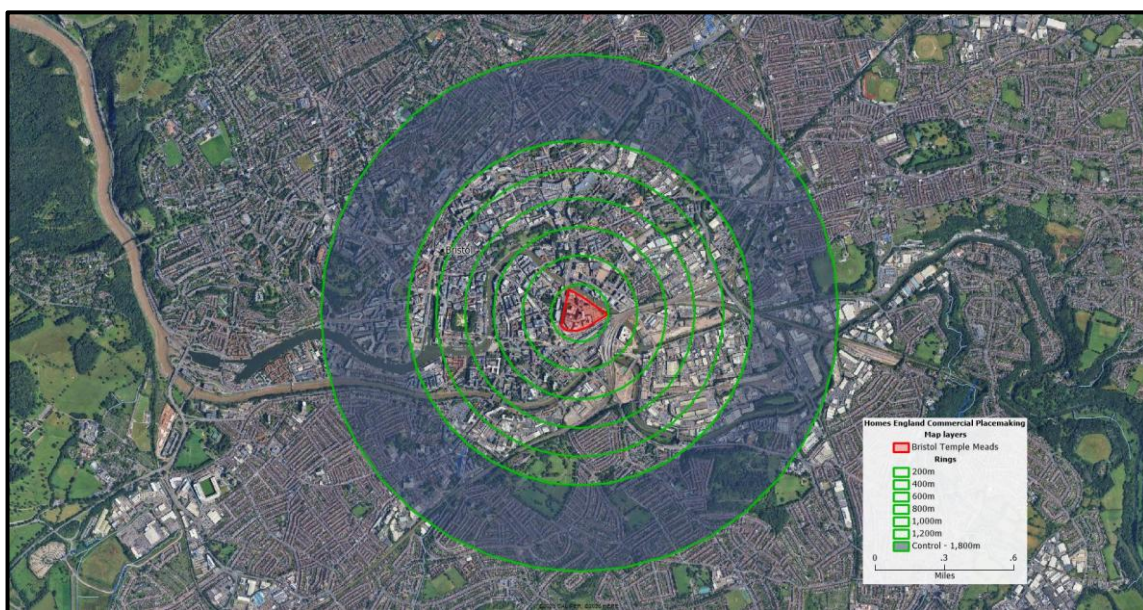
²³Depending on the size of development, the scheme footprint may nominally extend into Ring 2, thus reducing the number of observations in Ring 2.

- Rings beyond Ring 2 are again defined according to the model employed but work their way outwards sequentially. For example, Ring 3 for the 200m ring-width model, with a subject site occupying a circle of 100m diameter would account for the area 300-500m from the centre of the site (Ring 2 would be 100-300m).

46. Within the analysis of spillovers, the focus is on Ring 2 and above.

47. Figure 1 illustrates an example of the ring structure focused on the Bristol Temple Meads case study, based on the 200m ring-width model. The shaded control area is outside of the final ring.

Figure 1: Illustration of ring structure (Bristol Temple Meads, 200m model)



Source: Maptitude (2025)

48. In the final round of modelling, impacts were assessed over the same radius from developments regardless of ring structure (1.2km²⁴) and broadly the same control area outside the rings. This allowed an assessment of the model results within common spatial boundaries. Evidence of consistent results across different ring size models presents greater confidence for the presence of such impacts whereas mixed evidence across models is more open to interpretation.

Amenity variables

49. As with most models of this nature, a dataset of amenity variables was assembled that was used to reflect potential location-specific and observable influences on transactions. These were primarily sourced from the previous residential study and included:

- journey times:
 - walking to nearest town centre (based on Lower Super Output Area data); and
 - driving to nearest town centre, station, airport;
- distance to nearest bus stop, train, underground or light rail station; and
- PM2.5 pollution levels, noise, internet download speed, crime density (postcode).

²⁴Thus, for the 200m models there were six impact rings, for the 300m model four impact rings and for the 400m models there were three impact rings.

50. Principal Components Analysis (PCA)²⁵ was used to construct the amenity dataset for each ring within the impact areas. This process effectively controls for the mix of location attributes.

Spatial dependence

51. Data points are often linked by location, meaning nearby observations can influence each other. To handle this, the study used a method that adds controls for these spatial links, so the results are not biased²⁶. Filters were constructed to fit each scheme's area and adjusted to deal with cases where several property transactions shared the same postcode²⁷.

²⁵Principal Component Analysis (PCA) is a statistical technique used for dimensionality reduction in data analysis. It transforms the original variables into a new set of uncorrelated variables called principal components, which capture the maximum variance in the data.

²⁶It is common for observations to be correlated in terms of time, sub-group clusters or spatial distribution. One means of encompassing spatial dependencies is to specify autoregressive models, whilst another approach is to apply eigenvector spatial filtering (ESF). The latter uses a set of synthetic proxy variates, based on some 'articulation' (typically a spatial weights matrix) that ties observations together as control variables in a model specification. These controls identify and isolate stochastic dependencies among the observations, ultimately allowing modelling to proceed as if these observations are independent.

²⁷A series of spatial filters were constructed reflecting the range of ring footprints feasible for each individual scheme. The property transactions dataset geocodes properties to postcodes, meaning that multiple transactions are coded to the same coordinates. This issue was addressed by adjusting filters to allow for the spatial grouping of observations.

5. Findings

Introduction

52. This section discusses the robustness of the modelling approach and presents the results of each case study review along with the overall outcomes from the research.
53. The primary interest is the extent to which evidence of spillovers – either positive or negative – exists both within and across ring models. Replication within models indicates robustness across differing control spaces, whilst replication between models provides additional validation.
54. The focus of the all sector (full sample) exercise is on consistency between models which can be interpreted as evidence of spillovers in at least two of the 200m, 300m and 400m models. It is feasible that evidence of spillovers may exist within a particular ring model but not be replicated across models. It is difficult to explain why this should be the case, though the approach is always open to threshold effects where marginal differences in spatial boundaries influence outcomes. In addition, care is taken to highlight the risk of overfitting as model structures are complex with a moderately extensive set of parameters, and some sample sets are smaller than others.
55. Where feasible, models have been applied to office and retail sub-sectors. This provides insight into whether evidence of spillovers can be linked/attributed to either of these different uses and also facilitates an assessment of whether there exist any cross-sector spillovers. For example, these cross-sector spillovers may see a primarily office-based redevelopment generate evidence of retail impacts, and vice versa. As office and retail sector samples are invariably smaller in magnitude and are likely to be less robust, we note instances of ‘partial’²⁸ rather than full consistency of evidence and interpret this as the presence of evidence in just one of the 200m, 300m or 400m models.
56. It is important to note that reported positive/negative spillovers do not imply an absolute rise/fall in rental values post-intervention, but that rental values are higher/lower than those reported in control areas after considering other features such as timeframe, quality, amenities and sector mix. In addition, the reported spillover ranges are essentially ‘net’ in nature and reflect the balance between underlying increasing/decreasing pressures.

Modelling approach

57. Modelling commercial property has proved more challenging than residential property. While there has been substantial improvement in the availability of price/rent data, the risk of insufficient observations for detailed modelling remains, particularly for schemes located outside of the main urban centres.
58. The schemes modelled vary substantially in terms of nature, extent, location and timeframe. Many are high-profile commercial-led developments offering new/improved, high quality office/retail accommodation. The model estimates include the rent premium attributed to 5* (over 3*) quality in each location over the modelling periods. The inclusion of quality data, and the identification of this premium, has two primary benefits:
- it confirms prior expectations (i.e. better quality typically demands higher rents) and suggests the model is operating as expected; and
 - it isolates this effect of quality from impact estimates, as without controlling for quality, part of any impact estimate may include variation due to quality differences.

²⁸ ‘Partial’ evidence relates to instances where there is evidence of spillover effects in at least one but not all models.

59. All models – other than for locations with no/few 5* properties – show a positive quality premium regardless of evidence about spillover effects and often at levels exceeding 40%.
60. Models are also very consistent in detailing broad use premiums across locations. Once again, regardless of evidence on spillovers, virtually all models show retail rentals being higher than office rentals and a lower rent for industrial/other²⁹ premises. For retail, levels are generally some 30%-40% higher per sq ft than for offices, with industry levels generally between 40%-70% lower than offices.
61. Overall, the research has shown that the methodology employed is capable of identifying differential spillover patterns from commercial development. The approach could be applied to additional schemes to provide further evidence on issues such as the level of displacement associated with non-residential developments. It could also be used to assess the impacts of new infrastructure such as a new transport hubs on commercial property values.

Overall outcomes

Overview

62. 11 case studies were undertaken to inform this research. Table 2 overleaf provides a summary of the case study outcomes and details a variety of attributes including whether there is:
- an absence of any spillovers;
 - consistent³⁰ evidence of positive or negative spillovers;
 - the reported scale of the latter; and
 - consistent or partial evidence of any sub-sector or use spillover.

Consistent positive spillovers

63. Two of the schemes display consistent positive spillover impacts – Golden Square Birmingham and MediaCity Salford – with positive impacts reported both within ring models (across differing control spaces) and across all ring models (200m, 300m, and 400m). Such consistency across models is an indication of robust positive spillover impacts³¹.
64. Golden Square is a relatively small public realm space located in Birmingham’s Jewellery Quarter, with impact assessed between 2016 and 2024. Models show a consistent and significant positive impact effect with rental gain between 8%-16% concentrated within 400m from the development, though there is some evidence that proximity to other developments may have marginally influenced rents. Sub-sector models tend to suggest that this effect may be driven by the retail sector though significance is relatively weak. Office sector models, on the other hand, show no evidence of positive spillover effects.
65. MediaCity is a well-established mixed use development in Salford and impact is assessed between 2012 and 2024. The sample dataset is very different from other schemes with very little retail activity, and office/industry activity broadly balanced at some 45%. Models show a consistent and significant positive impact effect with rental gain in the order of 10%-15%, primarily within 400m of the development. There are insufficient observations to model sub-sectors.

²⁹ CoStar identifies a small number of other sectors such as medical.

³⁰ ‘Consistent’ evidence exists when all models report impacts regardless of ring-size or extent of control area.

³¹ It is interesting to note the impact of the public realm improvements both here (Golden Square) and elsewhere (Centenary Square) as they are somewhat different in nature to developments involving new commercial space and may be subject to a different set of impact levers.

Table 2: Outcomes Summary

	Scheme Type	All sectors: No Consistent Evidence of Spillovers	All sectors: Consistent evidence of -ve Spillovers	All sectors: -ve Spillover Range	All sectors: -ve impact area	All sectors: Consistent evidence of +ve Spillovers	All sectors: +ve Spillover Range	All sectors: +ve impact area	Retail/ office: Evidence of -ve Sector Spillovers	Retail/ office: Evidence of +ve Sector Spillovers
Brindley Place, Birmingham	Com	-	✓	-16%-30%	Up to 400m	-	-	-	Retail (P) Office (C)	-
Paradise, Birmingham	Com	✓	-	-	-	-	-	-	Office (C)	-
Snow Hill, Birmingham	Com	✓	-	-	-	-	-	-	Retail (P)	-
Bristol Temple Meads	Com	-	✓	-7%-16%	600m to 800m	✓	12%-26%	Up to 600m	Retail (C) Office (C)	Retail (C) Office (C)
Liverpool One	Com	✓	-	-	-	-	-	-	-	Office (P)
St Pauls Square, Liverpool	Com	✓	-	-	-	-	-	-	-	Office (C)
Spinningfields, Manchester	Com	-	✓	-20%-30%	Up to 800m	-	-	-	Retail (C) Office (C)	-
Newcastle Helix	Com	✓	-	-	-	-	-	-	-	Office (P)
MediaCity, Salford	Com	-	-	-	-	✓	10%-15%	Up to 400m	-	-
Centenary Square, Birmingham	PR	✓	-	-	-	-	-	-	Retail (P)	Retail (P)
Golden Square, Birmingham	PR	-	-	-	-	✓	8%-16%	Up to 400m	Retail (P)	-

Consistent positive and negative spillovers

66. One scheme in the sample – Bristol Temple Meads – displays both consistent positive and negative spillover impacts. The office development sits adjacent to the national rail station, with impact being assessed between 2008 and 2024. The sector profile of the sample is more balanced than many other sites with office activity at 54% and retail activity at 36% across the impact space.
67. Results show a consistent and significant positive impact effect across all models (in the order of 12%-26%) out to 600m, with consistent and significant negative impacts (7%-16%) in the immediately adjacent areas to 600m-800m. The implication of these findings is that office development has attracted a higher level of demand within close proximity to the project from further away in the impact period. Sub-sector models demonstrate that this pattern occurs in both the retail and office sectors.

Consistent negative spillovers

68. Two of the schemes display consistent negative spillover impacts – Brindley Place Birmingham and Spinningfields Manchester – with negative impacts reported both within ring models (across differing control spaces) and across all ring models (200m, 300m, and 400m). Such consistency is interpreted as an indication of robust negative spillover impacts. The scale of the spillover ranges from 16%-30% for Brindley Place to 20%-30% for Spinningfields.
69. The negative rental spillover effects are identified only up to 400m in the case of Brindley Place and 600m-800m in the case of Spinningfields, confirming suggestions that the geographic reach of such effects is relatively limited.
70. Sub-sector retail models for Brindley Place broadly indicate lower rents compared to the comparator retail sector whereas office sector models show consistent, negative rent effects across the same rings/radius as the full model. Potential negative rental spillover rates are generally of the same order of magnitude. Both retail and office sub-sector models for Spinningfields show consistent negative and significant close proximity ring coefficients across models, with implied negative rental adjustment in the order of 20%-50% for retail and 20%-30% for offices.

No spillovers

71. Six development scheme models identify no consistent evidence of any overall spillover effects – Paradise, Centenary Square and Snow Hill in Birmingham, Liverpool One and St Pauls Square in Liverpool, and Newcastle Helix.
72. Paradise Birmingham is a commercial development with further phases to be completed. With impact only being assessed between 2022 and 2024, this represents one of the shortest post-completion impact periods in the sample and poses the significant risk that it may simply be too soon for any spillover effect to have become widely established. Nevertheless, sub-sector modelling suggests partial evidence of emerging negative office sector spillovers, which may not be surprising given the delivery of high quality, improved office space.
73. Centenary Square redevelopment was completed in 2019 and is a public realm scheme acting as a gateway to many of Birmingham's cultural venues. A post-completion negative spillover is identified for a radius of 400m in the narrow ring model, but this is not replicated in other models suggesting that the outcome may be sensitive to threshold effects. Generally, this lack of consistency is interpreted to indicate a less robust outcome. It is also noticeable that the variable reflecting proximity to other nearby development schemes is significant and negative for the narrow ring model yet not in other models. This may indicate that rents very close to Centenary Square have been reduced due to other competing schemes. In addition, models seeking to assess trends in (sub-sector) retail rental values again demonstrate some negative and significant impacts up to 400m, though these are largely offset by significant positive impacts between 400m - 600m.

74. Snow Hill is an office use scheme in Central Birmingham, which was redeveloped in a series of phases within an area of significant office sector activity. With impact being assessed over the period 2021-2024, this is also one of the shorter post-completion impact timeframes in the sample. Models show a significant negative impact only for the small radius (200m) model (in the order of 11-14%) and for a 400m-600m radius. While a lack of consistency in other models may reflect threshold sensitivities, the outcomes still indicate uncertainty regarding the robustness of findings. Unlike Centenary Square, there is no evidence of any competing development effect. Models seeking to assess trends in (sub-sector) retail rent values show some evidence of negative spillover effects in the 200m model relative to comparators and between 400m-600m, which is consistent with the overall results and may imply that the latter is primarily retail driven. However, this is not replicated in other models.
75. Liverpool One is a large, retail-led, city centre development built between 2004 and 2008, for which spillover impact has been assessed over the period 2009 to 2024. The full models show no evidence of any consistent or partial spillover effect. Sub-sector models also show no impact, other than a partial positive office sector profile in one model. Despite comprising an extensive retail development, the absence of any defined negative impact in retail models is of note.
76. St Pauls Square is a commercial-led development incorporating office, retail and food and beverage uses in the centre of Liverpool. The scheme was completed in 2011 and assessed for impact between 2012 and 2024. The full models show no evidence of any consistent or partial spillover effects. The same is true in (sub-sector) retail values where there are no identified impacts. Models seeking to assess trends in (sub-sector) office rental values, on the other hand, show broadly consistent evidence of positive and significant impacts in the immediate vicinity of the development.
77. Newcastle Helix is an innovation district bringing together businesses, academia, communities, and the public sector to act as a testbed for innovative technologies and solutions. Spillover impact is assessed between 2022-2024, the shortest post-completion impact period in the sample. Again, it may simply be too soon for any spillover effect to have become widely established. That said, in contrast with Paradise Birmingham, there is weak but emerging evidence of a positive office sector spillover in sub-sector modelling.

Implications for placemaking and additionality

78. Despite the limited number of case studies, the modelling results show that in two cases (18%) there was consistent evidence of price increases and no negative effects, indicating that there were positive placemaking impacts on adjacent property values. One of these schemes was a public realm project (Golden Square Birmingham) and other the transformational MediaCity scheme in Salford.
79. The results also provide important insights into the additionality of commercial-led development schemes. For instance, evidence of a statistically significant negative price movement would indicate that demand for other properties has been reduced and, if the adjustment is large enough, could also mean that other new developments become less commercially viable and may not go ahead³².
80. The modelling results indicate that:
- in over 73% of cases there is no consistent evidence of a net negative local price impact and thus local property market displacement is not evident or has been mitigated by offsetting placemaking impacts; and
 - in relation to 27% of developments there is some negative price impact and therefore displacement is likely to have occurred.

³²In this case, there would be displacement effects as the delivery of the intervention would detract from other schemes that may have been delivered in the surrounding area.

81. This analysis suggests that the level of local property market displacement associated with the case study projects is relatively low – although it should be recognised that the case study schemes examined here were chosen on the basis that they were expected to generate positive placemaking effects. More ‘standard’ commercial schemes may have higher levels of local property market displacement. The recent Green Book Review³³ has placed greater emphasis on assessing the local impacts of projects. This is an area where further research, including additional case study modelling, could help inform a more evidence-based assessment of non-residential development additionality.

³³[Green Book Review 2025.pdf](#)

6. Conclusion

82. Commercial property has proved more challenging to model than residential property, with major constraints relating to the availability of sufficient price/rental data. Whilst the availability of data has improved substantially, these challenges particularly remain for schemes outside of urban centres.
83. The results of the research are that:
- for the majority of schemes (55% - 6 out of 11) there was no consistent evidence of spillover effects. Consistent evidence of only lower rents was identified in two cases (18%), whilst there were also two cases (18%) of higher rent effects (indicating potential placemaking). One case study (9%) had both negative and positive effects in different rings. In comparison, the earlier housing-focused additionality research for MHCLG found that 38% of cases had price reductions and 44% had price increases, albeit based on a significantly larger sample of schemes;
 - spillover effects, where defined, extend over a relatively short spatial radius with some impacts extending to 400m and others to 800m. This represents a much more localised effect than that previously identified for residential schemes;
 - negative rent effects in the consistent negative spillover models were typically between 15% - 30% lower than in the control areas; and
 - positive rent effects, where defined, are reported to lie in the range of 10% - 25%.
84. Sub-sector models are more difficult to assess in light of the lower number of observations and display a variable set of outcomes:
- negative rent effects related to office-focused development are more generally reported in the office-level models. However, they only occasionally occur in retail models for the same development;
 - of the six case studies displaying no consistent overall evidence of spillover effects:
 - two display consistent evidence of office-level spillover impacts (negative for Paradise Birmingham and positive for St. Pauls, Liverpool);
 - two display partial evidence of office-level spillover impacts (positive for both Liverpool One and Newcastle Helix);
 - two display partial evidence of retail-level spillover impacts (negative for both Centenary Square Birmingham and Snow Hill Birmingham).
 - retail-level models generally report negative rent effects, though they are mostly partially significant. That said, two of the three models generating significant impacts (Golden Square Birmingham and Bristol Temple Meads) show positive gains.
85. The limited number of case studies means that it is not possible to make broader conclusions about the type of schemes likely to display spillover effects in either direction, though:
- there is substantial variation in the results for office-led schemes, suggesting the presence of local factors which might include levels of unmet local demand/supply side constraints:

- there is evidence that some office-led schemes (Brindley Place Birmingham and Spinningfields Manchester) have resulted in negative rental impacts in the immediate vicinity of the development (in the order of 15%-30%);
- some (Paradise Birmingham, Snow Hill Birmingham) have restricted post-intervention timeframes which may hinder the identification of spillover impacts. However, the office sub-sector model for the former does suggest the emergence of some negative rent effects;
- others (St Pauls Square Liverpool, Bristol Temple Meads, Newcastle Helix) display consistent sub-sector office gains.
- there is one example of a radical transformation – MediaCity – which demonstrates positive gains but no other such schemes to validate this;
- the one primarily retail scheme – Liverpool One – displays no consistent retail outcomes but partial positive gains for the office sub-sector in the vicinity.

86. Finally, the two public realm schemes - Centenary Square Birmingham and Golden Square - return differing outcomes:

- only one of the two (Golden Square) shows a consistently positive gain (sub-sector models suggest a retail rather than office impact), though this location is further removed from the city centre than other Birmingham schemes; and
- Centenary Square is more recent than Golden Square and displays no consistent evidence of impact

87. Overall, 73% of cases showed no consistent evidence of net negative local impacts, suggesting that commercial regeneration projects may have relatively limited local property market displacement effects. This is an area where further research, including additional case study modelling, could help inform a more evidence-based assessment of non-residential development additionality. Further case study research is needed to build a stronger evidence base on how non-residential developments affect surrounding commercial and residential values