Crossrail Property Impact Study

October 2012

Crossrail

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Bishopsgate, Nearest Station Liverpool St

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Image: Derwent London

Tottenham Court Road Crossrail Station

Executive Summary

Executive Summary

The Crossrail Vision

Farringdon Crossrail Station, Eastern Ticket Hall

Crossrail is among the most significant infrastructure projects ever undertaken in the UK. From improving journey times across London, to easing congestion and offering better connections, Crossrail will change the way people travel around the capital.

Building the new railway involves constructing 21km of twin-bore tunnels, constructing eight new stations in central London and Docklands and upgrading many existing stations. Stretching from Maidenhead and Heathrow in the west, across to Shenfield and Abbey Wood in the east, the new railway covers 118 km of track. Crossrail services are due to commence in 2018.

Crossrail's vision is for the project to play an active and broad role in moving London forward. As well as delivering a world-class railway that fast-tracks the progress of London. Crossrail will drive progress and leave a lasting legacy in many different ways. These include skills, employment, public art and procurement of materials, equipment and services from across the United Kingdom. But perhaps the most immediate and tangible benefits that Crossrail will unlock include:

- The creation of new stations and additional rail capacity;
- Enhancing stations and their surrounding urban environments; originating new over-site development opportunities above stations;
- Helping generate and focus development and investment activity along the route; and
- Supporting the future economic growth of the UK, helping to maintain London's status as a global city.

Crossrail is more than a new rail link, it will be the catalyst for regeneration in key locations and a driver of London's economic growth, in particular from a property perspective.

Crossrail's property impact

Key findings of this study covering the period 2012-2021 are:

- Crossrail is already having an impact on investment decisions. At many locations Crossrail will be influential in supporting and accelerating new development.
- Crossrail could help create additional residential and commercial value of as much as £5.5bn along the route between 2012 and 2021.
- Crossrail will support the delivery of more than 57,000 new homes and 3.25 million square metres of commercial office space that have been identified for development within 1 kilometre of stations along the route.
- Commercial office values around Crossrail stations in central London will increase due to Crossrail over the next decade, with an uplift of 10 per cent in capital value above a rising baseline projection.
- There will be significant increases in residential capital values immediately around stations in central London of some 25 per cent and in the suburbs of some 20 per cent (again above the rising baseline projection in the period).
- Urban realm improvements and the development of new schemes above Crossrail stations will act as a highly visible and beneficial driver for further development activity, the intensification of use and in several areas, such as Farringdon, significant change. Crossrail will have a transformative effect on the property market and development activity over time.

Land Securities, one of the UK's leading property developers considers that **"Crossrail will have a positive effect in the long-term. It has already changed our views on development investment and property acquisitions in areas along the route. Crossrail is already referred to and used within marketing material and in occupier queries. It will reinforce London as a place to invest, which has got be good."**

Crossrail has the potential to support new growth of a transformative nature in locations that have been constrained by transport accessibility and have seen lower levels of new development and floorspace in recent years.

Paddington Crossrail Station

Tottenham Court Road Station, Western Ticket Hall

Canary Wharf

Crossrail Launch Event

Central St. Giles. Nearest Crossrail Station: Tottenham Court Road

Liverpool Street Crossrail Station

Approach

The study is based on the following approach:

- Reviewing previous rail and property impact studies to fully understand the link between additional transport capacity and the associated growth in property values and development activity;
- Establishing clear "Zones of Influence" around each Crossrail station to show the varying impact on commercial and residential values dependent on walking time from the station;
- Selecting appropriate property market indicators to create a baseline value growth forecast for individual stations, local authority areas and line section averages for the central section (Paddington to Canary Wharf), the west section (Maidenhead to Acton Main Line) and the east section (Custom House to Abbey Wood and Stratford to Shenfield);
- Identifying the additional impact factors that will be reflected in the property value uplift attributable to Crossrail by location and market sector in the ten year period 2012 – 2021;
- Applying the value uplift factors to the known development pipeline and potentially available land within the zones of influence in order to estimate the total additional value and potential development activity that Crossrail will help unlock.

Driving Forces

A distinct driving force behind Crossrail's ability to support development activity and property market values is investment in the extent, configuration and quality of public space immediately around each station.

All of the developers interviewed as part of this study consider this to be a critical requirement in maximising the benefits of Crossrail. Crossrail's substantial investment in the wider public realm around each station is seen as vital.

Taken together, the new stations, the development above the stations and the planned urban realm improvements have the potential to re-define Crossrail's stations as being the centres of the communities they serve: attractive places with entertainment, public art, restaurants and public spaces. Places to spend time in and not just to pass through.

Derwent London have concluded that **"environmental enhancements of the public realm are a trigger for new development activity when supported by improved accessibility by Crossrail"**.

Another critical issue highlighted by developers is the necessity for local authority planning policy and decision-making to create a conducive environment that encourages the development activity Crossrail has the potential to stimulate.

Commercial and Residential Sectors

Crossrail will, for the first time, produce a direct connection between all of London's main business centres, linking Heathrow with Paddington, the West End, the City and Canary Wharf. The improvements in journey times, the quality of passenger experience and the frequency of rail service provided will have significant impacts on London's economic performance and new residential and commercial investment through a transformational effect on key locations along the route.

A major ancillary benefit of Crossrail is the opportunity for combined impacts with other infrastructure and development projects. This will provide additional economic benefits as the agglomeration effects of having significant economic drivers located near one another is likely to produce higher overall outputs. This will be visible at, for example, Stratford where Crossrail will interface with High Speed 1 or Custom House where the new station will form part of the wider regeneration of the Royal Docks.

Given the strength of existing central London office groupings, Crossrail is unlikely to create new markets or major locations of new demand in its own right. But it will be instrumental in reinforcing and growing office clusters and supporting occupier demand in established office locations. Maintaining values in high value areas can be as important as increasing them in other more modestly priced locations.

A distinct driving force affecting Crossrail's ability to support development activity and property market values will be investment in the quality and availability of public space immediately around each station

Tottenham Court Road Crossrail Station, Eastern Ticket Hall

Outside the central section, Crossrail is likely to have a limited impact in terms of generating additional demand for office space. However, there is a selected group of locations where the wider, contextual changes and strong public sector investment and policy impetus may combine with Crossrail to create a significant change. These locations include **Stratford, Custom House** and **Brentwood.**

Turning to the retail sector, there is already pressure on traditional bricks and mortar based retailers from online shopping. This pressure is not only driven by price and range, but also by service and expertise. High quality total retail, entertainment and leisure environments are now sought out by consumers and perhaps most critically by the retail occupiers that underpin development. Crossrail will present both an opportunity and a challenge to many retail locations by increasing access to new shopping centres and central London. Active management of outer London town centres along the Crossrail route will be required.

The unique economic characteristics and global position of London and the south east will continue strongly to influence the market for residential properties. While values in the London residential market did fall during the 2008 recession, prices have, in general, continued to rise in recent years at a higher rate than the rest of the UK. The influx of highly skilled, well paid workers from overseas will continue to drive price rises, particularly in prime and super prime residential markets. Outer London boroughs and areas beyond to the west and east are more dependent on domestic economic confidence, brownfield land capacity and transport accessibility. Crossrail stations where there are likely to be distinct or large scale impacts on the residential property market include:

Bond Street;

Tottenham Court Road;

Farringdon;

Whitechapel;

Slough;

Hayes & Harlington;

Southall;

Canary Wharf;

Custom House; and

Woolwich.

Places to Watch

With a headline additional effect on value of some £5.5 billion for the period 2012 – 2021 as well as supporting or influencing the delivery of more than 57,000 new homes and 3.25 million square metres of commercial floor space within 1km of stations along the route, Crossrail has the potential to have a transformative impact on the property market in key locations. These can be categorised as:

- Creating change – where a substantial change in current development quantities and types of land use can be expected.
- Reinforcing directions – where support is given to active, in-progress development programmes which reflect changing property values;
- Limited impact – where little change to the current development context can be expected.

Based on this approach and a synthesis of the analysis, it is possible to identify the following matrix of "places to watch".

	West	Central	East
Creating change	Ealing Broadway Slough Southall	Canary Wharf Tottenham Court Road Whitechapel Farringdon	Custom House Woolwich Abbey Wood
Reinforcing directions	Maidenhead Hayes & Hartington Heathrow Airport	Bond Street Paddington Liverpool Street	Stratford Romford Ilford Shenfield Brentwood Seven Kings Goodmayes
Limited impact	West Ealing Acton Main Line West Drayton Langley Hanwell Burnham Taplow Iver		Chadwell Heath Harold Wood Forest Gate Maryland Gidea Park Manor Park

Ilford

Central Section – Paddington to Canary Wharf

New, dedicated Crossrail stations along with over-site development projects, represent a truly transformational change in the level and quality of access and interchange through the heart of central London.

Direct connections to central London from the west and east, removing the need to interchange between National Rail, tube or bus will provide a catalyst for property development activity.

The following station locations are identified as having the greatest potential to become key property development locations with significant potential for change:

- Canary Wharf – providing the new levels of transport accessibility needed to unlock additional commercial and residential capacity, as well as providing access to the wider Isle of Dogs;
- Tottenham Court Road – capitalising on the transformation of the dated appearance of the area, the consolidation of land ownerships and the ability to intensify and re-use sites for commercial retail, office and residential uses;
- Whitechapel – a new station, improved accessibility and the availability of large potential development sites will support new activity; and
- Farringdon – increased accessibility and the ability to interchange directly with Thameslink will open up new commercial office and related mixed use opportunities including residential development.

West Section – Maidenhead to Acton Main Line

Crossrail's significant investment in stations as well as the improved journey times and supportive planning policies promoting residential, retail and office growth will support development and regeneration initiatives.

The effect will be greatest for residential development. Inner zones of influence, of up to 500 metres around the station and often in close proximity to existing town centres, are likely to see new and enhanced retail and leisure provision as part of mixed-use schemes.

There are clear, available development sites and areas of under-used land in and around many of the stations, offering developers opportunities to bring forward appropriate schemes.

Retail development opportunities will be mostly focused on defined town centres as part of mixed-use schemes under current planning policies.

Development locations where the greatest market activity and potential for significant property change may be supported by Crossrail are:

Bond Street Crossrail Station, Western Ticket Hall

Whitechapel Crossrail Station

Farringdon

Liverpool Street

- Ealing Broadway – supporting established plans for re-development around the station and along the Uxbridge Road towards West Ealing;
- Slough – serving the established Heart of Slough regeneration programme and identified development sites for town centre, residential and office replacement; and
- Southall – linking the district centre and local residential areas to central London and advancing development opportunities in the town centre and Southall Gas Works as a major brownfield opportunity.

East Section – Custom House to Abbey Wood and Stratford to Shenfield

The effect on journey times, the ability to make direct journeys into the heart of central London and the significant benefits in terms of route interchange will drive development market interest and activity in Crossrail's eastern section.

This potential is likely to be focused primarily on new residential development, due to continued long-term demand for new housing in east London, Brentwood and Shenfield. There will also be improved accessibility and travel times to employment centres.

Development locations where the greatest market activity and potential for significant property change will be supported by Crossrail are:

- Custom House – with its supply of significant development opportunity sites, proximity to ExCel, London City Airport, the Siemens demonstration facility and the University of East London will see Crossrail support, accelerate and enhance the wider investment programme for the Royal Docks;
- Woolwich – transformational change in the immediate station area and more widely in the town centre due to Crossrail and the journey improvements offered;
- Abbey Wood – a transformational change, particularly for new residential development as the new station opens up employment opportunities, services and facilities elsewhere along the Crossrail route.

Collectively these 'places to watch' are where Crossrail can be expected to lift values and therefore enable, support and advance delivery of housing and commercial schemes. Many of these locations have been identified as priority development locations by central and London government, as well as local authorities across the south east.

Crossrail will boost the economies of London, the wider south east and, by extension, the UK. In many locations it will advance longstanding visions for growth and change.

St. John's Square, Clerkenwell. Nearest Crossrail Station: Farringdon

1. Introduction

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Overview

Crossrail is among the most significant infrastructure projects ever undertaken in the UK. From improving journey times across London, to easing congestion and offering better connections, Crossrail will change the way people travel around the capital.

Building the new railway involves constructing 21km of twin-bore tunnels, constructing eight new stations in central London and Docklands and the upgrade of existing stations. Stretching from Maidenhead and Heathrow in the west through central London and across to Shenfield and Abbey Wood in the east, the new railway covers 118 km of track. Crossrail services are due to commence in 2018.

Crossrail will play a vital role in meeting London and the wider south east's transport needs, with significant evident benefits to the economy and attractiveness of London as a growth location and focus for inward investment.

The transport aims are set out in the Mayor's 2010 Transport Strategy:

- Support sustainable economic development and population growth by increasing transport capacity, reducing congestion on the transport network;
- Improve transport connectivity through journey time savings; and
- Bring wider benefits including: enhancing accessibility (including those with restricted mobility) thereby improving people's access to jobs, schools and other locations; improved transport safety with reduced road accidents; and environmental improvements; including a reduction in CO2 emissions.

The Crossrail project involves construction of new stations (Paddington, Bond Street, Tottenham Court Road, Farringdon, Liverpool Street, Whitechapel, Canary Wharf and Woolwich) opening up new development sites in Central London and beyond and providing interchange with London Underground, National Rail, London Overground, the Docklands Light Railway and London Bus services.

Crossrail represents the largest single increase in London's transport capacity since the 1940s and will provide an immediate 10% increase in the capacity in London's rail-based transport system. The quality and speed of journeys across London from the west and the east will also be significantly enhanced with direct east-west access and the direct connection of central London stations to the wider rail transport network without the need for interchange at existing National Rail termini.

The legacy of Crossrail will be far reaching. The investment will not only create new stations and significant additional rail capacity, it will also bring forward a substantial enhancement to the physical urban environment around each of the stations along the route, helping to create and focus development investment and activity. Coupled with increased accessibility and capacity, Crossrail will help to unlock areas of under-used land and sites for new investment and development as well as promoting a wider mix of uses and development activities in a wider zone of influence around each station. Crossrail will be a true catalyst for transformation and regeneration.

Purpose

The purpose of this Report is to understand the property market benefits arising in terms of market activity, value uplift and the development opportunities that Crossrail will create, unlock and support.

The Report forms the basis for future and ongoing review as the construction of Crossrail continues and the property dynamics of London and the wider south-east unfold.

Report Structure

Following this introductory section, the Report is structured as follows:

- Section 2 provides an overview of the approach and methods used to understand and measure the property and development effects of Crossrail;
- Section 3 considers the significant driving forces that underpin the changes Crossrail will bring about in the property market;
- Section 4 sets out the analysis of future market values. It examines the effects of Crossrail to date on the property market and considers the likely effects as construction proceeds and the line opens in 2018.
- Section 5 looks at the opportunities for new development to come forward as a result of Crossrail. It considers Central, West and East Sections of the Crossrail route and examines the characteristics and current planning policy basis that would enable and support new development, intensification or changes of use. It identifies places to watch in each

section of the route where development potential is most likely to be realised;

- Section 6 – draws together the findings and establishes the key themes.

The Report is supported by a significant volume of technical analysis which is summarised in the supporting appendices.

Crossrail

Regional Map

Tottenham Court Road Crossrail Station, Western Ticket Hall

2. Approach & Method

2. Approach & Method

Summary

This section sets out the approach and method used to consider the potential effects and impact of Crossrail's investment on the property market and opportunities for development along the length of the line. The key components of the methodology are:

- Reviewing previous rail and property impact studies to fully understand the link between additional transport capacity and the associated growth in property values and development activity;
- Establishing clear "Zones of Influence" around each Crossrail station to show the varying impact on commercial and residential values dependent on walking time from the station;
- Selecting appropriate property market indicators to create a baseline value growth forecast for individual stations, local authority areas and line section averages for the Central Section (Paddington to Canary Wharf), the West Section (Maidenhead to Acton Main Line) and the East Section (Custom House to Abbey Wood and Stratford to Shenfield);
- Identifying the additional Crossrail impact factors to reflect the property value uplift attributable to Crossrail by location and market sector in the ten year period 2012 – 2022;
- Applying the value uplift factors to the known development pipeline and potential available land within the zones of influence in order to arrive at the total additional value and potential development activity that Crossrail will help unlock.

Key Terms and Indicators

The following are the key terms and indicators that underpin the study.

Crossrail Line Sections

- Central Section (Paddington to Canary Wharf)
- West Section (Maidenhead to Acton Town)
- East Section (Stratford to Shenfield Branch and Custom House to Abbey Wood Branch)
- Crossrail Station Zones of Influence:
  - Inner Zone of Influence: 0 - 500m distance from station entrance
  - Outer Zone of Influence: 0 – 1000m distance from station entrance
  - Extended Zone of Influence: 1,000m + distance from station entrance

Crossrail Impact Factors

- Value Uplift Factor (%): increase in values above baseline forecasts attributable to Crossrail
- Value Uplift Factor (£bn): increase in values above baseline forecasts attributable to Crossrail

Value Benchmarks

- Line Section Average: average of local authority value performance across the relevant Line Section
- Market Benchmark - Local Authority Average: value average for local authority area the station is located in
- Market Benchmark - Local Comparator: value average spot market location near to new station

Why Does Rail Investment Support the Property Market and Development Activity

There is a body of empirical evidence relating to changes in commercial and residential property market values resulting from transport investment. Appendix 1 sets this out in greater detail.

Rail investments such as Crossrail result in changed levels of accessibility. These improvements are typically reflected in the cost-benefit analysis carried out prior to any investment being made. The principal benefit is travel time savings and an enhanced quality of service to the users of the system. Employees benefit from a wider range of jobs available and housing choices within a given travel time. Employers benefit as their labour market catchment areas can be extended. Clustering opportunities arise in the most accessible locations growing mature economic sectors as a result. There are also increased catchment areas for all types of services and facilities including retail and leisure facilities. The enhanced transport accessibility and a larger catchment area tends to drive densification of development around rail stations themselves. This provides the opportunity for market value and development activity increases.

Achieving additional value benefits from new transport infrastructure is, however, also dependent on other factors being present in the economy, including:

- Supportive local economic conditions relating to labour and property markets;
- A supportive planning policy and political environment that is conducive to inward investment; and
- The availability of both private and public funds for investment.

If these necessary supporting conditions are present, then the transport investment is likely to lead to an enhancement in property values and development activity.

Evidence regarding the effect of rail transport investments on property values is broadly positive. The reported effects vary across residential and commercial markets, the timeframe over which effects are realised and distance from stations locations. In most cases access to rail systems are valued by property owners and occupiers. There is limited evidence that close proximity to rail has a negative impact on property values.

Woolwich

St Giles High Street, nearest Crossrail Station Tottenham Court Road

Establishing the Station Zones of Influence

Zones of Influence linked to distance from stations have been established following extensive review of other studies into the property impacts and effects of railway infrastructure development. Full details of this are set out in Appendix 1. This review suggests identification of a number of zones of influence centred on the station entrances with distances relating to walking times to and from station entrances to homes, workplaces offices or shops.

Three Zones of Influence have been identified centred on Crossrail station locations along the route. These are shown for the whole Crossrail route and in more detail for each section of the line in Appendix 2:

- Inner Zone of Influence: 0-500m
- Outer Zone of Influence: 500-1000m
- Extended Zone of Influence: 1000m+

The Zones of Influence represent increasing distance radii from station entrances. It is anticipated that Crossrail will have an identifiable effect on property market values, development activity dynamics and potential to attract property investment across the three zones above. The zones are defined as follows.

- Inner Zone of Influence – Previous studies indicate that a 500m walking distance reflects an approximate 8-10 minute walk, an acceptable walking time/distance to a commercial employment location. In this Zone both residential and commercial property effects of Crossrail are assessed.
- Outer Zone of Influence - 500 – 1000m distance is considered to equate to a 15 minute walk time and reflects a realistic and acceptable walking time/distance to the station from a residential property. In this Zone, the focus is on residential effects. Commercial values beyond 500m from Crossrail Stations are difficult to isolate.
- Extended Zone of Influence – The Extended Zone represents a wider zone of influence beyond 1,000m from stations where there is likely to be a benefit to the property market from a general reduction in travel time and enhanced transport accessibility. This Extended Zone varies in distance from each station. It has been determined by the net improvement in journey times from or to Farringdon station in Central London that results from the Crossrail service.

There will be property, development and amenity effects related to Crossrail beyond these three Zones of Influence. However, the focus is on locations where resident, employee, employer and developer decisions will be most strongly influenced by proximity to these particular rail services. Beyond these boundaries, a wide range of factors will come into play. It should be noted that these zones are an analytical tool and do not reflect particular policy designations.

We have also reviewed analysis and evidence in support of the Crossrail CIL. The Zones of Influence are compatible and overlay with the approach to analysis of impact around stations carried out as part of that study. In this case we have set distances at clear intervals and to capture both central city commercial and outer London and suburban residential settings.

Selecting Property Market Indicators

To assess the effects of Crossrail a series of key property market data has been collated and analysed. These data sets form a consistent resource for baseline conditions and forecasts and analysis of Crossrail's effects on them.

The data sets used draw from standard published information sources capable of replication at a variety of geographic scales. This allows analysis of the property market across the whole Crossrail route and in greater detail for each Stations Zones of Influence.

These sources have also been used to establish wider market benchmarks. These include nearby local comparators for individual stations; local authority area averages and a line section average for the Central London, West and East corridor the station is located within. This allows identification of particular effects at station locations.

The indicators and sources are set out below.

	Value	Collection Level	Source
Market Activity			
umber of transactions office, retail	Number	Station Zones of Influence	Focus
Total Floorspace	Sqm	Station Zones of Influence	Focus
Values			
Residential Prices	Purchase Price	Station Zones of Influence	HM Land Registry
Commercial Rents	£/sqm	Station Zones of Influence	Focus
Rateable Values	£/sqm	Super Output Area	VOA
Development Capacity			
Existing Provision	Sqm	Super Output Area	VOA
Vacant Floorspace	Sqm	Station Zone of Influence	Focus
Brownfield Land	HA	Station Zone of Influence	GLA, NLUD
Development Context			
Permitted and Completed Developments	Number	Station Zone of Influence	London Development Database + Borough Annual Monitoring Reports
Planning Targets	Sqm (office and retail)		
umber residential	Station Zone of Influence	Borough / District Plans	
Accessibility			
Public Transport Accessibility Levels PTAL	PTAL Score	Station Zone of Influence	TfL
Alternative Services and ourney Time Improvement	Number	Station Zone of Influence	TfL/National Rail/Crossrail

This data analysis has been enriched through insights and intelligence gathered from extensive review of wider property market trend information and interviews with senior development industry figures active in the London and South East markets.

Property Market Conditions and Forecasts

There are a number of property market forecasts available assessing the long term prospects for property values across London and the south-east of England. Whilst each forecast utilises a bespoke method, all draw on a wide range of factors that are (or will) influence the market. Factors include market confidence, property types and products and wider economic factors (such as the availability of credit). Some also factor in major infrastructure upgrades such as Crossrail.

For commercial office and retail property the data used is drawn from VOA, Focus, ONS, IPD and Real Estate Forecasting Limited.

With respect to residential the London-wide forecast used as the base, this is taken from Knight Frank as part of its Residential Research programme, (Quarter 4 2011). The Knight Frank[3] forecast has been selected given its recognition within the industry as a robust assessment of future performance. The indicators used here to establish the forecast do not explicitly consider infrastructure upgrades. This allows the impact of Crossrail's to be assessed against this baseline.

[3]Knight Frank forecasting methodology can be found in "UK Housing Market Forecast, Knight Frank, Q4 2011"

Crossrail Impact Factors

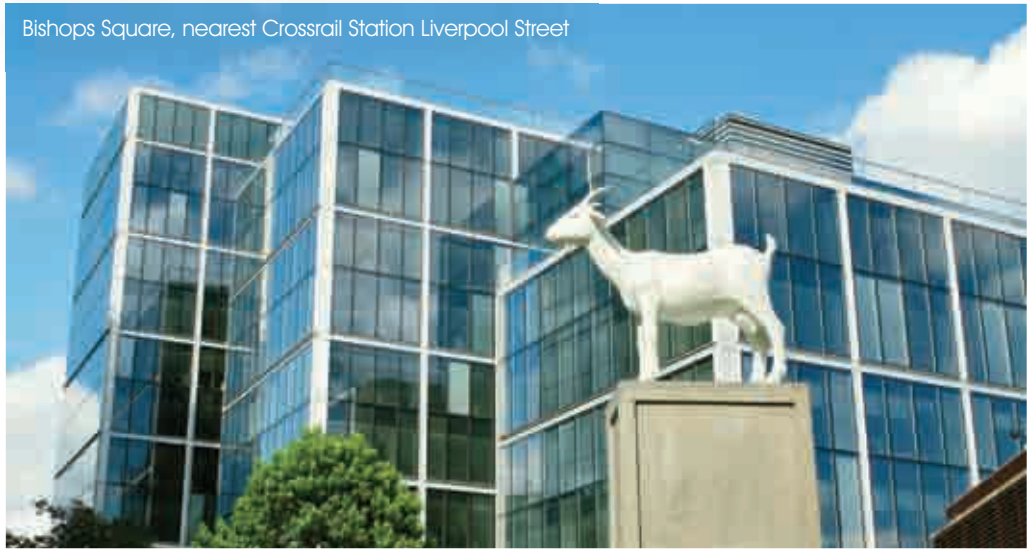
This Study seeks to understand the impacts and benefits Crossrail will have on the property market at, or close to, the stations as well as the wider regenerative impact. The approach is based on quantifying the potential additional impact on market value and performance over and above existing London or South East forecasts.

There is a plethora of academic research studies which assess the property market impacts of major rail schemes across Europe and the United States.

While each rail scheme is unique, these studies do provide a basis for understanding the potential property effects that Crossrail may bring. Importantly they provide guidance on 'additionality' multipliers that can be applied to baseline forecasts. A summary review of similar previous studies is set out in Appendix 1.

Based on the academic research (a full reference list is appended to this Report) and our own understanding of the London and South East property market a set of additional impact multipliers have been established that can be applied across Central, West and East sections of the Crossrail line and for different property types. These provide the additional value uplift factors that can be applied to baseline forecasts by property type, station locations and broad Crossrail Line Sections for Capital and Rental Values, up to and then beyond 2017.

The value uplift factors represent the additional change due to Crossrail's construction and operation.


Bishops Square, nearest Crossrail Station Liverpool Street

A: Crossrail Additional Annual Change to Baseline – 2012 to 2017

Central	Capital Value[4]	Rental Value
Residential	3.0%	1.5%
Office	2.5%	1.0%
West	Capital Value	Rental Level
Residential	2.0%	1.0%
Office	0%	0.5%
East	Capital Value	Rental Value
Residential	2.0%	1.0%
Office	0%	0.5%

[4]Capital value data is drawn from Experian data, June 2012

B: Crossrail Additional Annual Change to Baseline – 2018+:

Central	Capital Value	Rental Value
Residential	4.0%	2.0%
Office	3.0%	2.0%
West	Capital Value	Rental Level
Residential	3.5%	2.0%
Office	0.5%	0.5%
East	Capital Value	Rental Value
Residential	3.5%	2.0%
Office	0.5%	0.5%

C: Crossrail Cumulative Change to Baseline – 2012 to 2022

Central	Capital Value[5]	Rental Value
Residential	35 %	17.5%
Office	27.5%	15 %
West	Capital Value	Rental Level
Residential	27.5%	15 %
Office	2.5%	5 %
East	Capital Value	Rental Value
Residential	27.5%	15 %
Office	0.5%	5 %

The resulting impact is derived from the baseline forecasts and additional annual Crossrail uplift factors. They show the quantum and direction of likely change. The value uplift factors are based on a projection from the current year (2012) and reflect the economic growth position of the UK and the London and wider South East area as far as is practical.

Tottenham Court Road Crossrail Station, Western Ticket Hall

The outcome represents estimates of future market value conditions and provides a basis to compare effects across the stations to be served by Crossrail. They are set out on an annual basis and are considered to have weight over a ten year period 2012 – 2021, beyond which the opening and operation of Crossrail will be fully established, and the additional value effect of the new infrastructure is fully priced into value. Results are not intended to provide time specific or definitive forecasts for individual station locations.

Construction and Operation Phases

It is also assumed, based on previous comparative studies that the effects and impact of Crossrail on property value and activity will be felt in two principal steps reflecting market and individual perceptions of the progress towards the opening and operation of the line:

Current day and Construction Period: 2012 – 2017 during the line's construction and testing period as it becomes apparent to the public and property development/investment industry that Crossrail's construction is in progress and that its operation will become a reality; and

Opening and Operation: 2018 – 2022 during the operational phase. The effect of Crossrail on property values and development activity will be increased immediately prior to and for the next five years following its opening as individuals and businesses fully recognise and perceive the significant transport accessibility and quality benefits associated with the new line, the development of new stations and the enhancement of others along the route.

Planning Context

The additional impact values are all based on an assumption of a supportive planning policy and stable regulatory regime continuing to be in force during the construction and operational phases of Crossrail. The continuing, positive and supportive development environment created through the adopted London Plan and individual Borough and District Local Plans (or LDFs) is critical to development activity and to encouraging investment in the property market.

Strategic Market Role of Station Locations and Uplift Factors

In identifying and applying the level of value change, the pattern and extent of that change for capital values and rental values will be related to the location of individual Crossrail Station locations on the line as follows:

Central City Office – absolute demand for and take-up of office floorspace will be greatest within the Crossrail Central Line Section and including at Canary Wharf given the international role and established scale of these markets, along with existing pipeline and current demand characteristics of those locations.

As a result, commercial values are expected to be subject to greater annual positive change in the Central Section of the Crossrail line (Paddington to Whitechapel and Canary Wharf). This is reflected in the higher additional value uplift factors above.

Outer London Office – The outer London and wider South East markets in the West and East sections of the route Crossrail will run through are significantly different in scale and have lower demand and take-up levels. This is a long-term trend that has seen office markets in outer London, and beyond slow in terms of values and take-up in recent years. The GLA's 2009 London Office Policy Review concluded that the outer London office market "has been stagnant, and in some cases in decline, for many years now". Recent interviews with property developers as part of this study have endorsed this view. The prospects for positive change in demand and values may be more muted in outer London office locations such Ealing, Ilford and Romford. This is reflected in lower additional impact uplift factors.

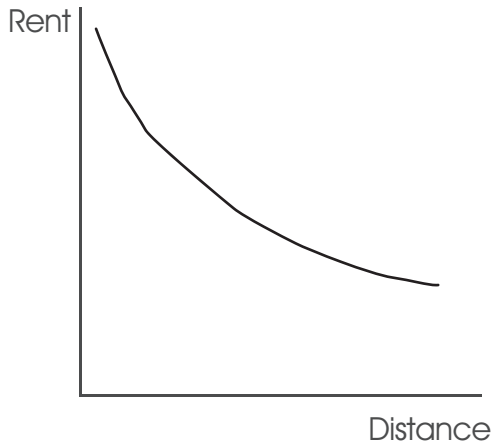
Residential – demand for residential units will be more evenly spread along the Crossrail line reflecting the diversity of housing markets along the length of the line. Demand for high density, high value central city stock and lower density suburban stock is likely to remain strong given Crossrail will support residential development in the Central Section as well as around the stations on the West and East sections of the line. A more uniform growth in rental value is therefore proposed for residential development.

Retail – Retail development activity is subject to strict planning controls in terms of the location and levels of new floorspace that can be provided. The London Plan and the individual borough/district Development Plans all identify and protect a hierarchy of town centres that serve to establish where retail activities will principally occur. Future retail activity is likely therefore to be focused on the existing, defined Town Centres as the principal locations where Crossrail will have a beneficial effect.

The benefits of increased and direct access, reduced journey times and the route of the line through many of London's primary comparison retail shopping locations and Metropolitan and Major Town Centres will act to focus shopping footfall growth into those established centres. New residential developments supported by Crossrail may however serve to encourage additional convenience retail demand in other centres where there is a Crossrail station.

Diminishing Impact with Distance from Stations

Debrezion et al (2004) recognise that property market impacts of any rail scheme diminish in influence, the further property is located from the Station. They identified a diminishing (or inverse) non-linear relationship between price and distance:



Source: Debrezion et al, 2004

Decay rates are important given the outer Extended Zones of Influence identified, particularly for West and East sections outside Central London. The outer extents of these Zones can extend over a considerable geographic distance from the station location.

Based on the findings of the academic studies and to estimate the impact of these diminishing effects across the Extended Zone of Influence, a rate of value decay has been applied for each, based on its size and the following estimates:

- **Residential** – for every 250m distance from the Station entrance there will be a decrease in prices or impact of 1.9% of the additional property value increase;
- **Commercial** – for every 250m distance from the Station entrance there will be a decrease in prices or impact of 4.8% of the additional property value increase.

The scale of decay over distance for commercial property reflects the earlier assessment that Crossrail effects will be most identifiable within 500m of the Station entrance (the Inner Zone of Influence). As such, increased commercial values are not modelled outside of the Inner Zone of Influence around each Crossrail Station in this methodology.

For residential property prices, a consistent rate of value increase (as outlined in the tables above) is used within the Inner and Outer Zones of Influence (up to 1000m from the Station entrance). However at the Extended Zone of Influence (1000m +) the decay in additional Crossrail value uplift is reduced for forecast house prices by 1.9% at 250m intervals until prices return to the London-wide trend, or the boundary of the outer Extended Zone of Influence is

reached. This allows an average value uplift to be calculated for the Extended Zone of Influence around each Station as a whole and the impact of Crossrail to be modelled.

Estimating the Total Value Effect of Crossrail on Future Development

In order to understand the likely total increase in value and level of future development supported by Crossrail, a ten year development period from 2012 – 2022 has been used as the basis for calculation.

Total Values

For commercial office development, the analysis takes floorspace figures from the VOA (2008 base) for each Station Zone of Influence and applies the known development pipeline supply of committed floorspace development to this. The relevant average market value per sqm is then applied to obtain a total 'current value'. This is then forecast forward over a ten year period using the appropriate benchmark area data. A further forecast uses the benchmark data with the additional Crossrail value impact multiplier applied. The difference between the two forecasts provides an indication of the approximate total commercial office value uplift created by Crossrail.

Caveats to be noted to include uncertainty on the phasing of future committed supply in the pipeline; and limits on completely comparable data outside of the London area.

For residential, a similar approach has been adopted. However, residential analysis takes an 'average' forecast across the 500m and 1000m Zones of Influence.

The key difference from the commercial office sector is that the total value forecast applies to a supply quantum based on land supply set out in the relevant London and Borough/District Strategic Housing Land Availability studies and published planning policy documents. Areas where there is overlap between stations have been reconciled to avoid duplication. As with the commercial office analysis, the phasing of housing delivery remains an uncertainty given wider housing market and economic circumstances.

Development Activity and Development Potential

To identify the opportunity for development activity and potential along the Crossrail route, brownfield land and site availability, development completions and planning policy relevant to each station area have been identified from available local authority monitoring reports, the London Development Database and through analysis of Strategic Housing Land Availability Assessments and Development Plan Documents.

Romford Crossrail Station

Central St. Giles. Nearest Crossrail Station: Tottenham Court Road

3. Driving Forces

3. Driving Forces

Summary

London has maintained a comparatively strong economic performance during a period of economic downturn based on its:

- Position as a world city and global financial centre;
- Clustering and high density of businesses in growth sectors;
- Strong reputation for business stability;
- Attractiveness to businesses and to highly skilled individuals;
- Established labour markets;
- Advantageous time zone;
- Good transport connections to other markets; and
- Cultural appeal, quality of life and place.

Residential values have rebounded since 2008, reflecting a multi-tiered market including:

- Prime and super-prime residential areas benefiting from equity investment and overseas finance;
- The influx of highly skilled, well paid international workers; and
- Outer London, Berkshire and Essex markets linked to regional and domestic economic confidence.

The impact of Crossrail will be vitally important in improving London's connectivity, providing an essential west to east link through Central London and providing direct links to major suburban town centres.

Additional and faster connections to Heathrow Airport and London City Airport will be an important business consideration. Crossrail can change perceptions and support regeneration in wider areas where it will provide a clear new level of service, improved access to employment, underlying market performance is strong and there is the local ambition and opportunity for change.

Land Securities, one of the UK's leading property developers considers that:

"Crossrail will have a positive effect in the long term. It has already changed our views on development investment and property acquisitions in areas along the route. Crossrail is already referred to and used within marketing material and in occupier queries, It will reinforce London as a place to invest which has got be good".

"Crossrail will have a positive effect in the long term. It has already changed our views on development investment and property acquisitions in areas along the route."

Introduction

This section outlines some of the principal driving forces and factors that have and are shaping the property market within which Crossrail will operate. It is important to explore and understand these factors individually and in combination. They provide a set of characteristics and dynamics within which the additional property benefits arising from Crossrail must be based. Relevant factors include:

- Current market conditions and development trends;
- Enhancements that Crossrail will make to accessibility, quality and speed of journeys along its route;
- Which locations will see the greatest change to existing service;
- Current and changing perceptions of each station location; and
- Developer and investor perceptions and views.

Bishopsgate

Tottenham Court Road Station, Western Ticket Hall

Whitechapel Crossrail Station

Romford Crossrail Station

New Street Square

Ilford

Paddington Crossrail Station

Current Market and Development Trends

Recent overall economic performance in the UK has been weak, following a series of global financial crises and a recession in 2008. Once again in 2012 the UK has fallen into technical recession, although it is less severe than in 2008. This economic downturn followed a period of unprecedented growth prior to 2008, which had seen large scale investments and returns across almost all investment classes.

It has been noted by many economists that the severity of the downturn has been less in London and the South East compared to the rest of the UK. London still suffered the effects of the economic downturn but to a lesser extent. This continues to be the case as an analysis of the latest survey data shows that annual growth in Q4 2011 in London was 1.2% compared to 0% in the UK as a whole.[1]

London's global position attracts businesses and individuals to the city as a whole. Those attracted tend to be highly skilled and better paid. Its advantageous time zone, good transport connections to other countries and cultural attractions all make London attractive to investors and residents alike. The City of London is viewed as a safe haven for investments. This feeds through into office, residential and retail markets.

While London continues to retain its place in the global ranking of cities, there are a number of key factors that are viewed as important in maintaining this status. The regulatory framework of markets is viewed keenly by investors seeking both flexibility and confidence. Air transport infrastructure is critical as it allows easier access to markets and international corporate office networks. Metropolitan transport infrastructure is also a key component of day to day business efficiency, quality of place and quality of life for employees and corporate decision makers.

In this respect the impact of Crossrail will be vitally important to improving London's connectivity, providing an essential west-east link through central London, joining for the first time central London directly to major suburban town centres in outer London and towns beyond in Berkshire and Essex. Additional and faster connections to Heathrow Airport and London City Airport will be an important business consideration.

The quality of the passenger experience, improvements to journey times and the frequency of rail service provided on the new route will have significant effects on London's economic performance and a transformational effect on the position and visibility of stations along the route for new residential and commercial investment.

Crossrail's enhanced accessibility is coupled with a number of other transport infrastructure projects underway or proposed such as the Thameslink upgrade, new overground connections, the High Speed 2 link to Birmingham, the Northern Line extension to Battersea and new river crossings in East London that together will drive a far improved level of accessibility for central and outer London centres and beyond into the wider south east region.

There is also an ongoing debate around improving air transport links in London. The third runway at Heathrow is not in favour with the Government, although its preferred alternative is not clear. The Government is keen to promote and develop the first phase of the High Speed 2 rail line connecting London and Birmingham.

Commercial Office Sector

London's commercial property market experienced a reduction in returns during 2008 and a rebound since. This is a stronger market performance than the rest of the UK. Overall UK occupier demand remains subdued across most of the commercial property market, although the Q2 2012 RICS UK Commercial Market Survey suggests that demand has stabilised (a balance of +3 in Q1 2012 compared to -11 in Q4 2011). The survey suggests that demand for space fell in retail, remained stable for office space and increased for industrial space.

Although construction activity remains low across the UK as a whole, the first half of 2012 has seen 22 office schemes start on-site in Central London, meaning there is now 10.2 million sq ft under construction. This demonstrates the unique nature of requirements and investors within the Central London market who place a high emphasis on prime central office floorspace.

[1] Source: GLA Economics, London's Economy Today, Issue 118, June 2012

The Retail Sector

Central London is a regional, national and global shopping destination. London is characterised by a series of large, purpose-built shopping centres such as Brent Cross, Shepherds Bush and Stratford and large scale urban town centres, such as Kingston, Ealing, Wood Green and Croydon. Crossrail services will intersect with substantial town centres or shopping centres at Maidenhead, Slough, Hayes, Southall, Ealing Broadway, the West End, Canary Wharf, Stratford, Ilford and Romford.

Consumers continue to face many economic pressures and this will constrain rental performance in the retail sector in the short term. Inflation levels are reducing and this will eventually enable real household incomes to return to growth; a positive signal for consumer expenditure growth. There is a set of wider, long term trends affecting retail that the impact of Crossrail on this sector need to be considered within.

The Internet / E-tailing

There is pressure on traditional bricks and mortar based retailers from online shopping. Shoppers are able to select their own retail mix online and shopping centres and high streets will need to compete with this choice, which is not only driven by price and range, but also service and expertise. Online shopping has driven expectations of convenience and service upwards and customers are expecting more from instore ambience to tempt them to make a purchase.[2] Town centres and high streets will increasingly have to provide a quality shopping 'experience' if they are to compete with the Internet.

Floor space Efficiency

Comparison retail businesses in particular are seeking improved profitability via more efficient use of floorspace. This is driven by an emphasis on higher value space-efficient goods replacing lower value space intensive goods hence small consumer electronics, major reformatting of stores in central locations, the growth in out-of-centres and new purpose built shopping environments, a number of one-off events like Sunday trading and longer opening hours and the very strong growth of retail expenditure relative to the growth in floorspace. This will underpin an ongoing trend towards more modern, higher density stores and the demolition of older inefficient space, driving retail redevelopment.

Big Centres and Declining Overall Retail Requirements

One of the major trends to emerge from the economic downturn has been the decline in the amount of retail space in town centres. Traditional 'High Street' vacancies are marked. This has affected comparison shopping in particular. Emerging market trends suggest that traditional town centres and high streets will be used more for leisure and social activities with more bars, restaurants, food outlets and community spaces opening in vacant units.

At the same time, major new centres at Shepherds Bush, One New Change and Stratford have arrived, while significant parts of Regents Street and Bond Street have been redeveloped. High quality total retail, entertainment and leisure environments are now sought by consumers and, critically, by the retail occupiers that

Bond Street Crossrail Station (Hanover Square)

underpin development. Retailers are moving towards opening larger flagship stores in strategic locations that are supported by smaller satellite stores and transactional websites. The larger flagships will accommodate the fuller range, while smaller stores will offer a more select range supplemented by internet kiosks allowing access to a wider product range.

Crossrail will present both an opportunity and a challenge to many retail locations by increasing access to new shopping centres and central London. Active management of outer London town centres along the Crossrail route will be required.

[2]Verdict Research, "How Britain Shops: Overall 2011", March 2011

Crossrail will present both an opportunity and a challenge to many retail locations by increasing access to new shopping centres and central London. Active management of outer London town centres along the Crossrail route will be required.

Foodstores

In the convenience sector, space expansion is high on the agenda for many grocers. Smaller store formats are becoming more of a focus as top up shopping is becoming increasingly popular – a response to consumers being discouraged from travelling long distances by high fuel prices and to an increase in online shopping. Following in the path of Tesco and Sainsburys, Asda, Morrisons and Waitrose are all expanding the reach of their smaller concept stores. This is a marked change to Outer London's shopping environment in recent years, and in many cases these formats have been linked to high density, mixed use town centre residential schemes.

The Residential Sector

The unique economic characteristics and global position of London and the South East strongly influence the market for residential properties. While values in the London residential market did fall during the 2008 recession prices have, in general, continued to rise in recent years at a higher rate than the rest of the UK. According to the Office of National Statistics (ONS) annual house price inflation was 2.3% in Q1 2012 compared to 0.4% in the UK.

However, even within London there are very significant differences in price trends across the capital. For example annual transaction levels in Islington currently stand at 82% of their pre-crunch level while in Barking and Dagenham levels are down 57% in the same period according to HM Land Registry. This reflects a multi tiered market with prime residential areas experiencing different drivers based in part on equity investment and overseas finance. The influx of highly skilled, well paid workers from overseas to London will continue to drive price rises, particularly in prime residential markets. Overseas investment currently accounts for over a third of residents across London and almost half in the West Central Boroughs of Westminster, Kensington & Chelsea and Hammersmith & Fulham. This profile of investment suggests a strong market outlook for Central London with growth predicted of up to 25% in house prices in the next five years.

Outer London Boroughs and areas beyond in Berkshire to the West and Essex to the East are more dependent on domestic economic confidence and access to mortgage finance and lending availability as the primary market drivers. While forecasts for house price rises

Centre Point

Whitechapel Crossrail Station

continue to be subdued, evidence suggests that London and, to a lesser extent the wider south east, will remain ahead of elsewhere in the UK.

The primary driving factor in the wider South East is employment and unemployment rates. Since the beginning of the downturn in 2007, the South East region has continually experienced lower unemployment than other UK regions. The M4 / Thames Valley corridor in particular has maintained its position based on strong private sector performance, while other regions have been negatively affected by private sector performance and public sector restructuring.

However, residential development in the South East is perceived to face planning constraint in terms of policy designations and in terms of local political and community opinion. By contrast, the London Plan actively encourages development, provides significant targets and has identified substantial brownfield land capacity. This includes locations that will be influenced by Crossrail, particularly at Southall, Stratford, the Royal Docks and Woolwich. There is a strong potential for new Crossrail services and increased access to the Central city to change the residential market role of these locations.

Woolwich

Crossrail will Change Accessibility and Capacity

Crossrail is designed to support the transport network by relieving congestion on existing National Rail, Underground and Dockland Light Railway services, particularly at morning and evening peak times.

Central London stations are often crowded at these times and with London's population and commuting workforces forecast to grow substantially, the pressure on existing transport infrastructure will increase significantly, even with recent transport infrastructure investments.

Crossrail is the single biggest investment to alleviate the projected increases in demand on transport within London. Crossrail will add 10% capacity to London's rail network. Research shows that it will reduce congestion on London Underground lines (particularly Bakerloo, Central, District and Jubilee) and the Southeastern trains network by between 20% and 60%.

In addition, Crossrail's direct connection across London will, for the first time connect major terminus stations such as Liverpool Street and Paddington allowing direct travel and reducing the need to interchange. This will have a dramatic effect on the perception of travel in London and the south east region as well as having real benefits in terms of reducing travel times and easing congestion at current interchange locations. The dedicated new stations, the new development opportunities provided by the Over Site Developments and the enhancements to other existing station infrastructure along the Crossrail route will support a far greater level and ease of access to the street level at these stations, further enhancing the quality and speed of journeys and with additional benefits to the immediate station environments.

Crossrail is anticipated to reduce pressure on road infrastructure. Research suggests that Crossrail will reduce road traffic in London by 2%. In particular, roads that run parallel to the Crossrail route are likely to see a large reduction in traffic as trips are transferred to the railway.

Changing Perceptions of Locations

Improved transport infrastructure is one of the key factors in preserving the Capital's appeal to business investors and corporate occupiers.

Central London as a whole has a well established public transport infrastructure serving Westminster, the City and Canary Wharf. It is forecast that the construction of Crossrail will bring 1.5 million more people within a 45 minute commute of existing major employment centres of the West End, the City and Canary Wharf. Crossrail will add significantly to this service. However, there are specific locations where Crossrail will represent a more substantial change in type and level of service. These include Tottenham Court Road; Farringdon; Whitechapel and at Canary Wharf. Crossrail has the potential to support new growth of a transformative nature in locations that have been constrained by transport accessibility and have seen lower levels of new development and floorspace in recent years.

There is the potential for Crossrail to change perceptions and support regeneration in wider areas where it will provide a much improved level of service, better access to employment and where underlying market performance is strong and there is the local ambition and opportunity for change.

To the west, Crossrail is likely to advance the Heart of Slough regeneration agenda, giving increased access to an existing office location. Slough has an active office market allied to the A4 corridor west of the Town Centre. However, planned town centre office schemes have not come forward in recent years. Within the context of a relatively strong Thames Valley office market and a strong local employment role, Crossrail has the potential to boost commercial office potential in a location where it might otherwise be delayed. Strengthened connections to Heathrow are an obvious benefit here. Crossrail will also offer faster access for residents to employment at Heathrow, the West End and the City.

Southall also offers land availability, policy direction and a growing population close to Crossrail services. Crossrail has the potential to increase the pace of delivery of residential schemes here supporting a change in the perception of this location for development.

To the East, there will be a step change in access to residential and employment locations at Stratford and the Royal Docks (Custom House). Rapid access to the City and Canary Wharf will be important components of an agenda that has seen the radical transformation of the environment and visibility resulting from the 2012 Olympics. Major residential schemes on brownfield sites are proposed as part of the Olympic Legacy Masterplan and Silvertown Quays. The Royals Business Park is the subject of

employment-led mixed use proposals. Crossrail will provide a significant change in perceived access to the Royal Docks in particular. The Royal Docks is served by the DLR and is relatively close to Central London. However, required changes of mode at Canning Town and the speed and frequency of the existing service has limited the pace and scale of development. In this case, Crossrail is a potential game changer, providing a direct and rapid service to the City of London.

There are also prospects for benefits in Ilford and Romford town centres in the East because of improved accessibility. Residential schemes may be further supported. However, retail and office developments will face greater competition as faster access to Stratford and central London will also be provided.

At the same time, there are major brownfield land proposals at Woolwich and regeneration proposals for Abbey Wood. Crossrail will offer a major new transport service to locations that have seen a relatively modest pace of redevelopment to date. New connections and services will mean an increased rate of development.

There are also a series of locations where new services will be beneficial, but have a lesser impact on perceptions and development dynamics. Future directions at Maidenhead, Brentwood and Shenfield will be driven mainly be pre-existing development dynamics and the policy context, with Crossrail services providing a beneficial rather than a driving force for change.

Crossrail and other Investments and Developments

Major ancillary benefits from Crossrail are expected to result from the impacts where the effects or Crossrail combine with other major infrastructure and development projects across its route. This will provide additional economic benefits as the agglomeration effects of having significant economic drivers located near to one another is likely to produce higher overall economic output.

There are a number of areas across the Crossrail network where this is likely to be achieved. For example, at Stratford station High Speed 1, overland rail services from the east, Jubilee Line, Central Line and DLR all converge and are likely to produce a combined impact on the property and development market due to the range of interchange available.

Another example is at Custom House where the Crossrail station will open alongside major regeneration initiatives at Canning Town and The Royal Docks. This will achieve greater accessibility to a location that has the Excel Exhibition Centre, London City Airport, the University of East London and the Seimens demonstration centre. Initiatives here are further underpinned by Enterprise Zone development incentives.

In the longer term, to the west the development of Crossrail stations at Paddington, Acton Main Line and Ealing Broadway may combine in the future with a proposed High Speed 2 station at Old Oak Common. This would link Heathrow Airport with the high speed route to Birmingham; realising combined benefits and accessibility for the entire UK.

Improvements to station facilities and surrounding public realm will total £90m in value. The direct provision of new development is also a feature of Crossrail with Over Site Developments (OSD) being promoted at a number of key central locations including:

- Paddington;
- Bond St (Davis St);
- Bond St (Hanover Square);
- Tottenham Court Road (Dean St);
- Tottenham Court Road (Charing Cross Road);
- Farringdon (Cowcross St);
- Farringdon (Lindsey St);
- Liverpool St (Moorgate); and
- Liverpool St (Blomfield St).

Environmental improvements and the development of new sites above Crossrail stations will lead to future development activity, the intensification of use and, in some instances, such as Farringdon, transformational change.

Working in partnership with developers, local authorities and key stakeholders, Crossrail is leading placemaking in the 21st Century. Taken together, the catalytic effects of new stations will revitalise the concept of the station being the centre of a community hub – attractive places with entertainment, public art, restaurants and public spaces to spend time in – not just a station to pass through as quickly as possible.

Farringdon Thameslink Station and Crossrail Western Ticket Hall

Developer and Investor Perceptions and Views

Perceptions and views of the potential effects and impact that Crossrail may have are important driving forces for the property market and development activity. Discussions with a number of leading developer and investors who are already active along the Crossrail route suggested a series of common themes.

Supporting a Positive Development and Investment Climate in a Unique City

Derwent London identified that Crossrail's property and development effects will be positive but must be considered within the context that London is a rare place in terms of its political stability, beneficial tax regime, cosmopolitan and multicultural population and skilled workforce which mean that London will always be attractive to both residents and employers.

Grosvenor support the view of Crossrail acting as a positive driver for development and investment in London but noted the need for focus on additional transport infrastructure, suggesting "Crossrail has an effect on the perception of London as a place to invest/develop, but this can be emphasised with further commitments to new infrastructure, including Crossrail 2. Additional transport capacity upgrades are needed and current uncertainty over routes and timescales for Crossrail 2 and other London schemes needs to be resolved".

The Crossrail investment will support transport-led development capacity and will have a positive effect on business investment in London. Berkeley Group identifed this positive position and considered that for certain locations, such as Canary Wharf and Farringdon, the additional capacity will be "game changing which means that such areas of London will benefit as commercial clusters and centres for investment".

Derwent London concluded that "Crossrail will benefit passenger movement and capacity within Central areas and across London greatly, making journeys possible that were difficult previously. It will have a positive effect on commuters to Central London and the City and is likely to support a range of development activities from residential in established commuter locations to new commercial and retail occupier demand for floorspace".

Crossrail's Ability to Catalyse and Support Transformational Regeneration and Change

Transformational physical change and the re-shaping of property markets in particular areas was a further common theme.

Derwent London considered that Crossrail will feed values and activity in certain specific locations. Locations such as Farringdon will see greatly enhanced accessibility due to Crossrail and this will be a re-inforcing factor in supporting transformational development investment and activity around this station. Areas such as Whitechapel and Tottenham Court Road will benefit in a similar manner".

There are certain places which may become hotspots, including Tottenham Court Road and Farringdon where new levels of accessibility and improved locational benefits of those areas supports market value and development activity.

Berkeley Group also identified Farringdon suggesting it may "become a new super hub for Central London (with Thameslink and Crossrail coming together) and Crossrail having a transformative effect on the business environment and wider support for residential activity in this location. In Whitechapel a similar transformative effect is possible given the improved accessibility, the character of the existing housing stock character and the availability of sites for future development".

Other developers echoed this sentiment, identifying a range of locations including "West Ealing, Ealing Broadway, Abbey Wood, Woolwich through the Royal Arsenal development, and Custom House aligned to the wider regeneration of the Royal Docks and Silvertown as development hotspots driven by Crossrail".

A similar positive effect was identified for the ends of the Crossrail lines and stations in or adjacent to the larger town centres in outer London where there is likely to be benefits to residential value and demand in such locations which may "drive residential demand and which in turn will support the provision of services and facilities in the town centres and drive further site regeneration, intensification or re-development for other uses".

Planning Policy Aligned with Crossrail Investment

A critical issue highlighted by a number of developers is the ability of planning policy and planning decision-making at the Borough or District level to provide a conducive environment to encourage the transport oriented development that Crossrail has the potential to stimulate. Grosvenor noted the varying situations within Central London Boroughs and identified the importance of this in locations such as the Isle of Dogs and Canary Wharf, where the planning policy **"has been supportive in welcoming new transport-led development projects and where development can therefore be supported by Crossrail and can be partly funded by development activity".**

Positive effects on Development Activity and Property Values

Derwent London identified that the line will have a positive effect on property market values and development activity over time, reflecting that **"the development of the route and the new investment that this represents is wholly good news for London". They did also consider that "it was difficult, at present, to identify specific Crossrail property market effects" and that business is driven by a wide range of factors, concluding that "the effects are not likely to be fully and tangibly measurable now"** while construction works continue.

Land Securities echoed this perception, considering **"Crossrail will have a positive effect in the long term. It has already changed our views on development investment and property acquisitions in areas along the route. Crossrail is already referred to and used within marketing material and in occupier queries. It will re-inforce London as a place to invest which has got be good".**

Land Securities also considered that the beneficial market value of Crossrail is, to a larger extent, already priced into land and site acquisition now. Nevertheless, **"once the line is operational it is likely that Crossrail will continue to drive values given its sheer increase in the level of connectivity".**

A scarcity of commercial development sites available within central London areas, and particularly within Westminster, suggests that commercial values may rise through lack of supply despite demand for floorspace being supported by Crossrail's increased transport capacity within London.

Berkeley Group identified specific effects on market activity and demand for two of its development schemes reflecting that "**for both Dickens ard Ealing Broadway and Royal Arsenal Woolwich , Crossrail has had, and will likely continue to have, a positive effect on demand and development activity, but not yet on market values".**

Enhancing the Physical Environment around Crossrail Stations

A distinct driving force affecting Crossrail's ability to support development activity and property market values was investment in the quality and availability of public space immediately around each station. All of the developers considered this to be a critical requirement in maximising the benefits of Crossrail's investment. The substantial programme of investment into the wider public realm around each station by Crossrail as part of the integration package of works is seen as vital.

Land Securities emphasised this saying **"an enhanced quality of public realm is critical around each Crossrail station"**. With very significant increases in the flows of people using each station and interchanging, particularly in Central London around Bond Street, Tottenham Court Road and Farringdon **"there is a clear need to ensure that there is sufficient, high quality open public space available. This will also be to the benefit of new developments and the intensification of uses around the stations".**

Grosvenor agreed with this highlighting **"the critical need for Crossrail to ensure that the setting of the stations provide a high quality of public space".** They further suggested that **"this must extend beyond just the station entrance and pavement space. Crossrail's substantial, targeted investment in the physical environment, and its delivery, is a positive benefit. The longer term and wider physical environmental benefit of public spaces and ground level connectivity remains an issue that will have a fundamental effect on development activity and perceptions of the property benefits that Crossrail brings".**

Derwent London concluded **"environmental enhancements of the public realm are a trigger for new development activity when supported by improved accessibility by Crossrail. This is important in order to ensure that Crossrail passengers increase ground level footfall and therefore the vitality of commercial and retail/leisure facilities rather than simply interchanging between rail or tube lines".**

Farringdon Crossrail Station, Eastern Ticket Hall

Image: Derwent London

Tottenham Court Road Crossrail Station, Eastern Ticket Hall

Bond Street Crossrail Station, Western Ticket hall

London Wall, nearest Crossrail Station Liverpool Street (Moorgate entrance)

4. Findings by Sector and Line Section

4. Findings by Sector and Line Section

Summary

Crossrail will have a considerable impact on the property market, in terms of delivery rates, occupier demand and the value of all forms of floorspace. Its influence will be most keenly felt in the immediate station environs, however positive impacts could extend over much greater distances. Crossrail will support existing high performing areas, supporting London's role as a Global City by creating conditions for continued success and increasing the levels of 'over-performance'. It will also support the growth of weaker areas, creating new areas of demand and improving performance relative to non-Crossrail locations. These influences are likely to create an overall uplift of approximately £5.5bn in terms of property values. For many locations Crossrail will be influential in supporting new development activity, or accelerating the pace of development. Key findings of this study are:

- The physical environment at and around stations will be upgraded and strengthened, encouraging private sector investment;
- This effect will be particularly marked across Central London at locations that will see a step change in accessibility and service;
- Crossrail is already having an impact on investment decisions and at many locations Crossrail will be influential in supporting new development activity and accelerating the pace of development;
- Between 2011 and 2021 it is forecast that Crossrail's impact on the property market will be very significant and the projected increase in values will encourage investment in the future. This effect will be particularly marked across central London at locations that will see a step change in accessibility and service;
- Crossrail could help create additional residential and commercial accommodation value of as much as £5.5bn along the route and support the delivery of more than 57,000 new homes and 3.25 million square metres of commercial office floor space that have been identified for development within 1 kilometre of stations along the route;
- Significant increases in residential capital values in central London of 25 per cent and in the suburbs by 20 per cent above baseline forecasts over a decade can be attributed to Crossrail's impact. Rental office values in these areas will increase due to Crossrail by 17.5 per cent and 20 per cent; and
- Urban realm improvements and the promotion of new sites above Crossrail stations will act as a highly visible and beneficial driver for further development activity, the intensification of use and, in some instances, such as Farringdon, the start of transformational place-shaping change. Crossrail will have a transformative effect on the property market and development activity over time.

Introduction

This section sets out Crossrail's effects on the property market of Crossrail. It considers the impacts that the line has had to date and looks forward over the construction period and into the operational period of the line after it opens in 2018.

Total Additional Value and Volume Supported by Crossrail

Crossrail will bring new levels of accessibility and frequency of rail service across its route. For many areas, its delivery is influential in enabling new development activity to occur, or accelerating the pace of delivery.

Current available housing land capacity study data from the GLA and individual borough and district Annual Monitoring Reports identify a total capacity for some 57,275 new residential units within 1km of all the Crossrail station locations across the line in the period 2012 – 2021. Estates Gazette data shows a total committed office pipeline of some 3,255,000 sqm within 1km of Crossrail stations.

Taking an overall view of the line, it is possible to draw a broad conclusion on the total potential additional value that Crossrail will support for residential and commercial office accommodation. There are limitations to the level to which the bringing forward of all such development can be solely attributed to Crossrail, nevertheless, the figures provide a broad indication of the total additional value Crossrail could support.

The following table summarises baseline and Crossrail forecasts to identify the uplift that Crossrail generates across Central, West and East Line sections. This shows how Crossrail has the potential to add as much as £5.5bn of additional value along the route. It also identifies the distribution between additional residential and office markets for each section of the Crossrail route.

Development Projections

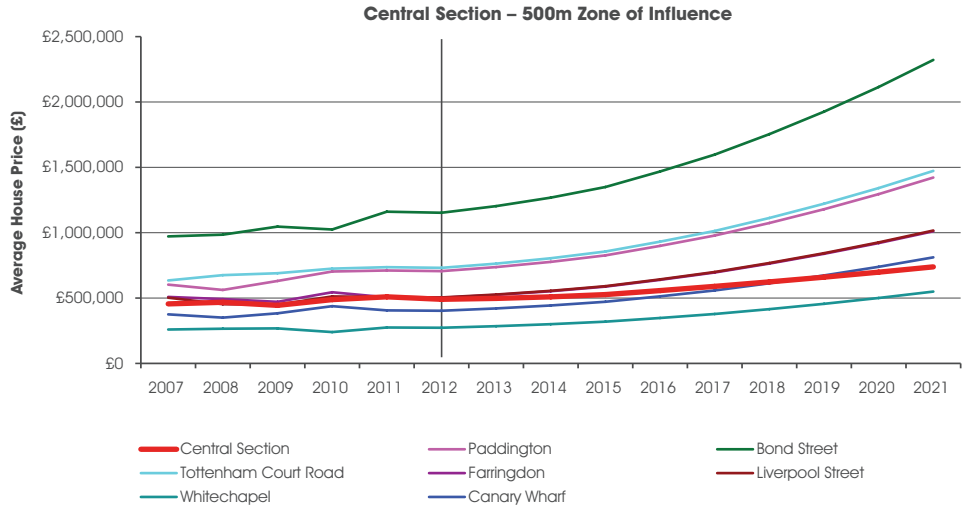
		West	Central	East	Total Crossrail
Baseline	Residential £bn	4.9	8.0	9.9	22.8
	Office £bn	0.2	6.9	0.2	7.3
	Total bn	**5.1**	**14.**	**10.1**	**30.2**
Crossrail Projection	Residential £bn	5.8	10.0	11.8	27.6
	Office £bn	0.2	7.6	0.3	8.1
	Total bn	**.0**	**17.**	**12.1**	**35.**
Crossrail Impact	Residential £bn	0.9	2.0	1.9	4.8
	Office £bn	0.01	0.7	0.01	0.7
	Total bn	**0.**	**2.7**	**1.**	**5.5**
Crossrail Impact %	Residential %	18	25	19	21
	Office %	4	10	4	10
	Total	**17**	**18**	**1**	**18**

Residential Markets

In order to understand the impact and effects of Crossrail on the residential market along the route we have undertaken a comparison of the value forecasts for each station Zone of Influence and the forecast for average home prices across the market areas the entire relevant line section sits within. This initial analysis provides an indication of which Station areas are likely to benefit most from the introduction of Crossrail against average forecast values for each Line Section.

The London and Greater South East residential market is complex with a series of sub-markets operating within each Line Section. The impact of Crossrail on property values, and hence the incentive for development and regeneration, will vary significantly both between different station locations and across the Zones of Influence at each station when compared to local market benchmarks – whether location specific or wider local authority areas. We have also highlighted particular stations where Crossrail is likely to have a significant impact on the market values identified.

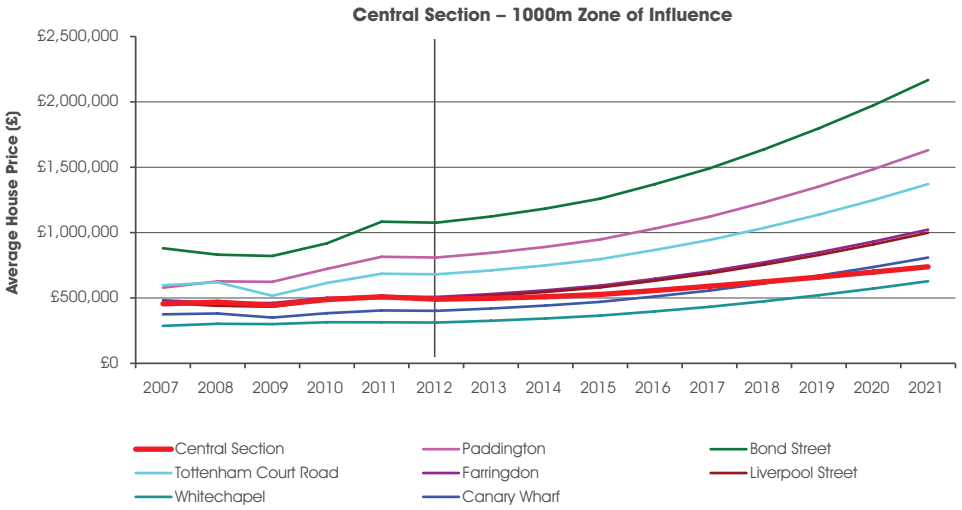
To a large extent, differences between stations reflect the different historic performance of markets in each area. In essence, Crossrail will serve to reinforce a number of the strongest performing areas, particularly in the Central Section of the route. However, as will be shown below, in a number of areas Crossrail provides the opportunity to strengthen markets or, in some cases, create new ones by increasing values in areas which have, to date, significantly underperformed when compared to relevant local authority or specific location benchmarks.

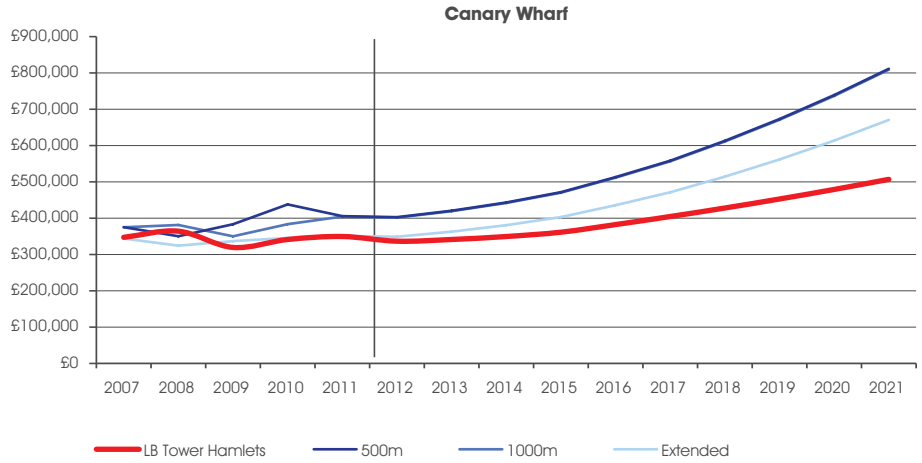


Central Section

At Inner Zones of Influence up to 500m from stations, areas around Paddington, Bond Street and Tottenham Court Road will increasingly outperform the Line Section average set by local authority averages over time. The effect will strengthen once the service opens in 2018.

The forecast also shows that Farringdon, Liverpool Street and the Canary Wharf Station areas will all move from underperforming the Line Section average to a stronger position. At Farringdon and Liverpool Street this shift is likely to happen in the near term and as such may not be a direct result of Crossrail. However, Crossrail will accelerate the level of out-performance once open. Canary Wharf improvement is more directly attributable to Crossrail given its timing and the well established relationship between transport capacity and development, in particular related to Wood Wharf.



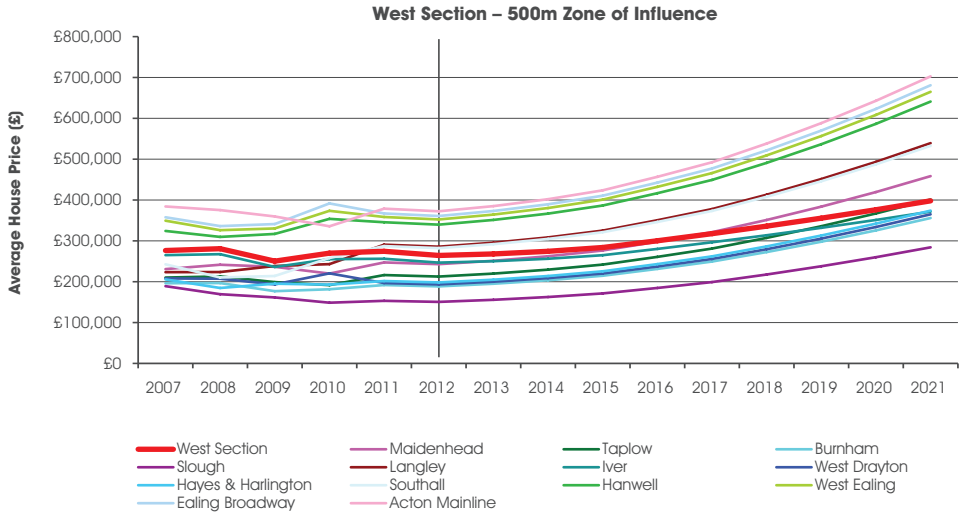


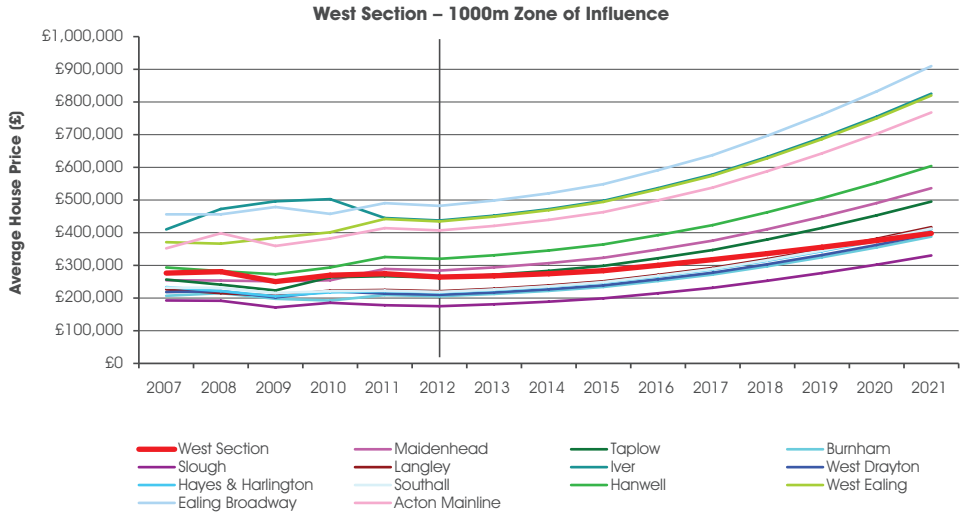
This performance is also reflected in the Outer Zone of Influence up to 1000m. Paddington, Bond Street, Tottenham Court Road, Farringdon, Liverpool Street and the Isle of Dogs context around the Canary Wharf station are all likely to benefit from the Crossrail effect.

Interestingly, Whitechapel continues to under-perform the Line Section average. However, within the Outer Zone of Influence the gap is narrowed.

As with most of London's prestigious Central and City locations the influence of Crossrail at Canary Wharf should be considered in context with a range of other factors. The line will serve to support the ongoing strengths enabling further development by increasing transport capacity. For example Canary Wharf, as the prime residential location in LB Tower Hamlets, will continue to outperform its Market benchmark because of its markedly different built character, association with the office district and image and identity.

A similar pattern emerges for Paddington, Bond Street, Tottenham Court Road and Liverpool Street suggesting that the real benefits of Crossrail at these locations will not be its influence on residential values, but by providing capacity to address the congestion and access issues which act as a constraint on commercial development activity.

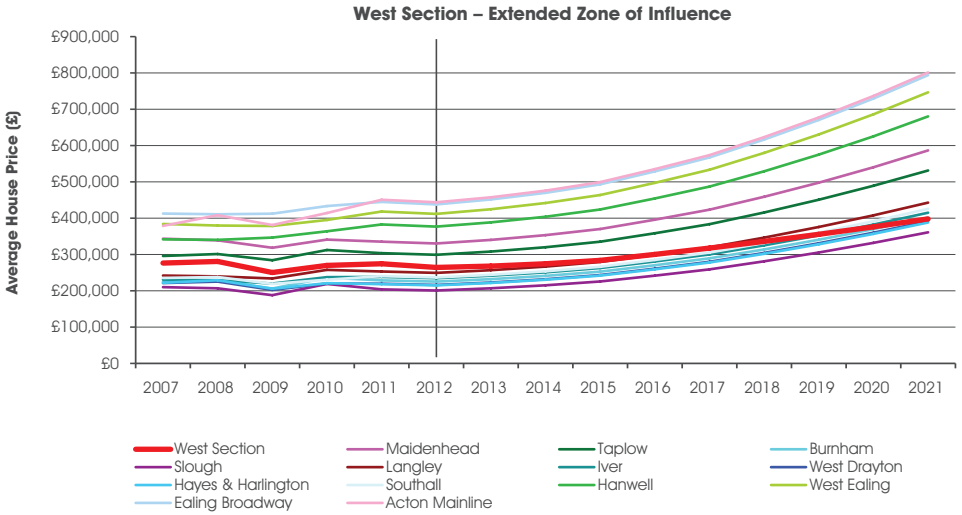


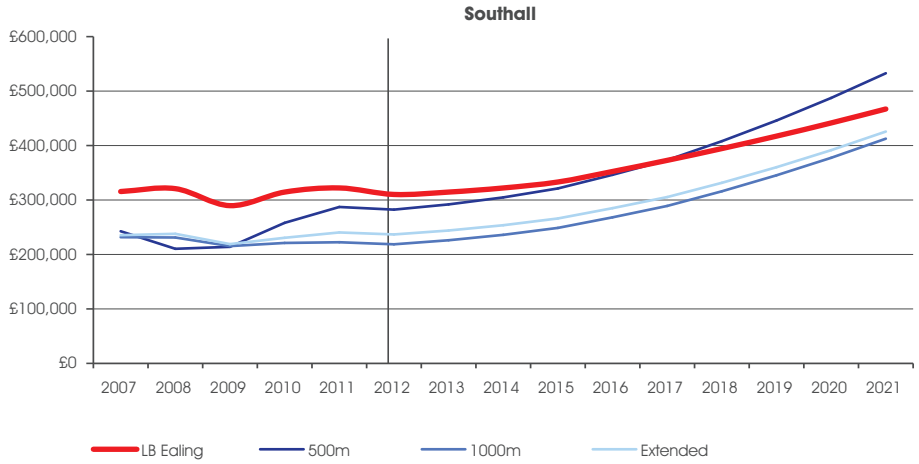


West Section

The West Section for the purposes of this study is deemed to run from Maidenhead to Acton Mainline. A Line Section average performance has been established for this section based on averages for local authority areas and variations above and below this identified. Zones of Influence are considered from the stations moving outwards in sequence. Heathrow is excluded from this analysis given the Zones of Influence only cover the airport area itself, as such there has been no residential transactional activity within the property market.

Up to 2007, values were higher than the Line Section average at Acton Mainline, Ealing Broadway, West Ealing and Hanwell. After 2011, values at Southall and Langley also move above the Line Section average. It is projected that as Crossrail is delivered, values in these locations will accelerate away from the Line Section average considerably. Other locations are expected to perform at or below the Line Section average and follow the rate of change set by this Line Section average. The graph also shows that Crossrail is likely to influence the position of Taplow and Maidenhead, moving average values in these Inner Zones of Influence from below the Line Section average to above it (in 2017 and 2021 respectively).

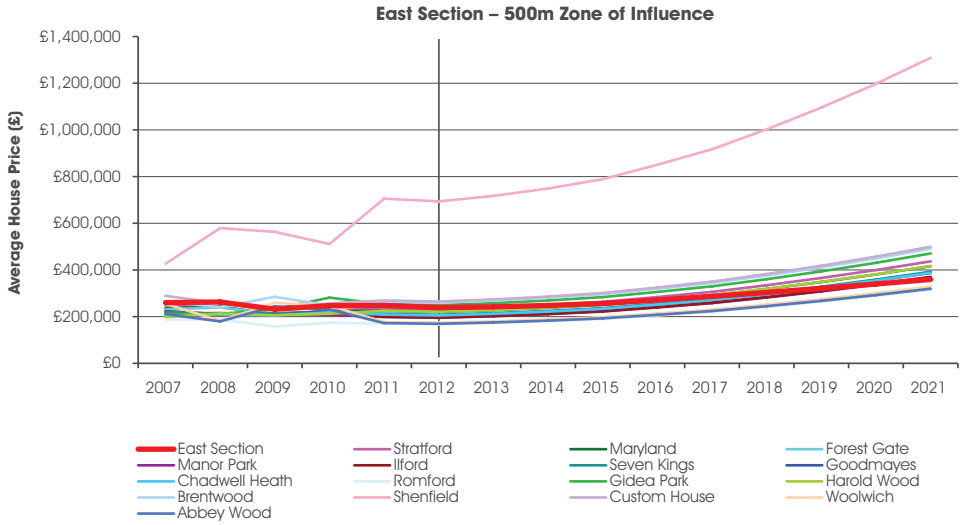


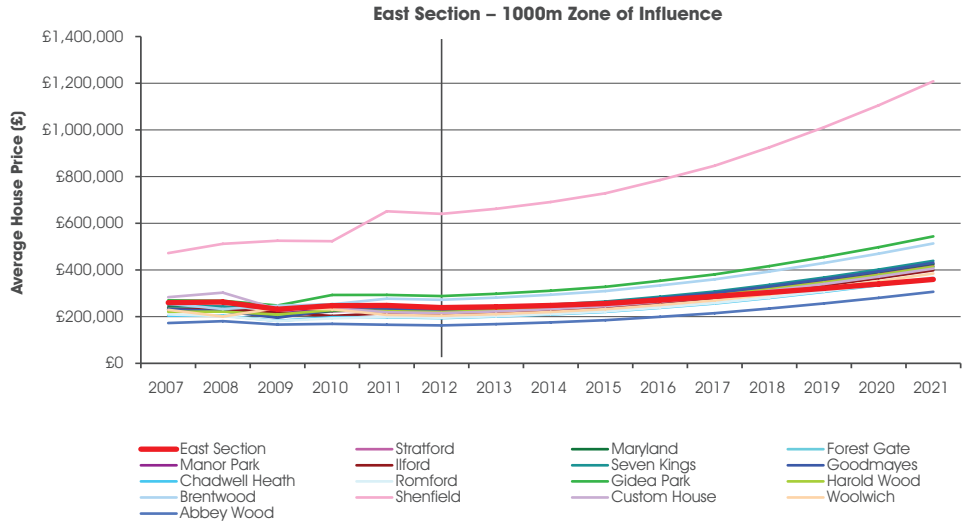


At Zones of Influence beyond the immediate 500m radius around stations, the uplift effect is reduced. While a number of outer Zones of Influence will continue to outperform the Line Section average, fewer locations will see a shift from under performing the Line Section average to out performing.

However, for both the Outer and Extended Zones of Influence, Southall and Langley will move above Line Section average performance. For Extended Zones of Influence, Iver and Burnham will also improve their relative performance. These last areas do, however, have limited development capacity in policy terms.

Southall has more significant capacity associated with the London Plan designated Opportunity Area. It also shows a particularly significant bias in terms of property values towards the Inner Zone of Influence around the station. The Inner Zone is clearly the strongest performing and is the only Zone to exceed the Market benchmark (Local Authority Average) values for the area. Also it can be seen to significantly widen the value differential to both the Outer and Extended Zone of Influence, which remain below the Market benchmark. This indicates that the Crossrail influence will be significantly weaker at distance from the station, potentially reflecting the influence on values of other factors such as a relatively low density housing stock of terraces and semi-detached, brownfield land and industrial locations.

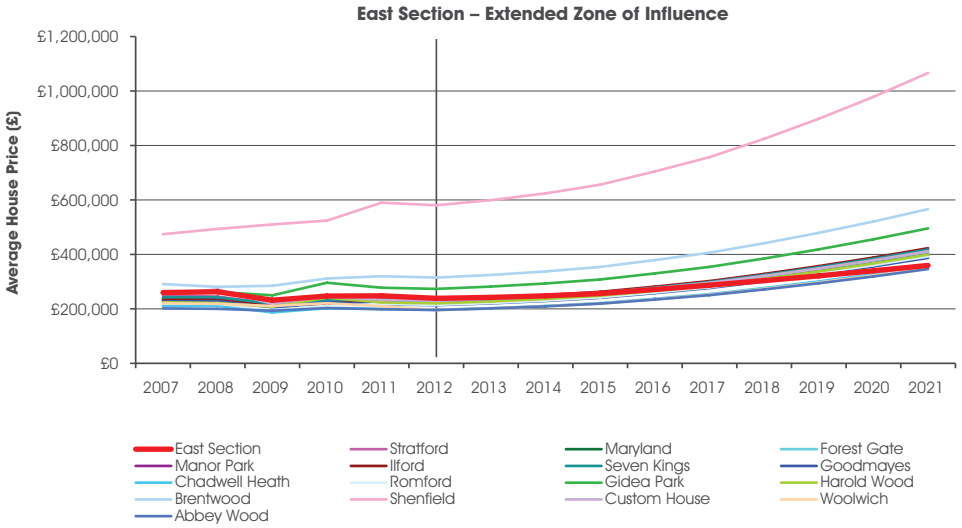


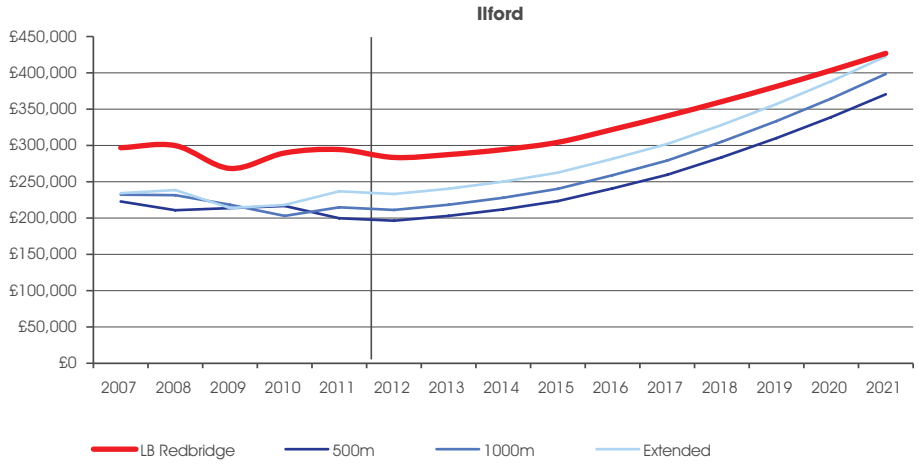


East Section

In the East Section value changes have clustered and are expected to stay close to the Line Section average for the Inner Zones of Influence. This may reflect the strength of a well established values pattern where there is lesser variability in value across East London and beyond as a whole, than across outer West London. The outlier is Shenfield where values are significantly and consistently higher.

Crossrail will drive some improvement in relative performance at a significant number of the Inner Zones of Influence. However, the effect at wider Outer Zones of Influence will be stronger, with Crossrail having an impact on a greater number of the Zones and moving more of them from under to out-performance of the average by 2021. By the end of the forecast period only Abbey Wood would continue to have values which are below the Line Section average. Despite the influence of Crossrail, Abbey Wood will not significantly improve its relative performance, with values remaining 15% below the Line Section average set by local authority area averages along the East Line Section. This can be considered to reflect the dampening effect of a wide range of local factors including quality of stock, local amenities and perceptions.

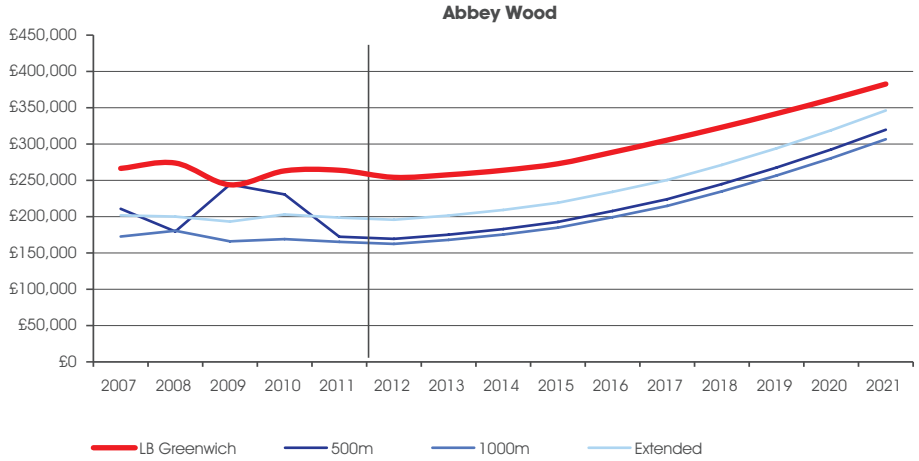


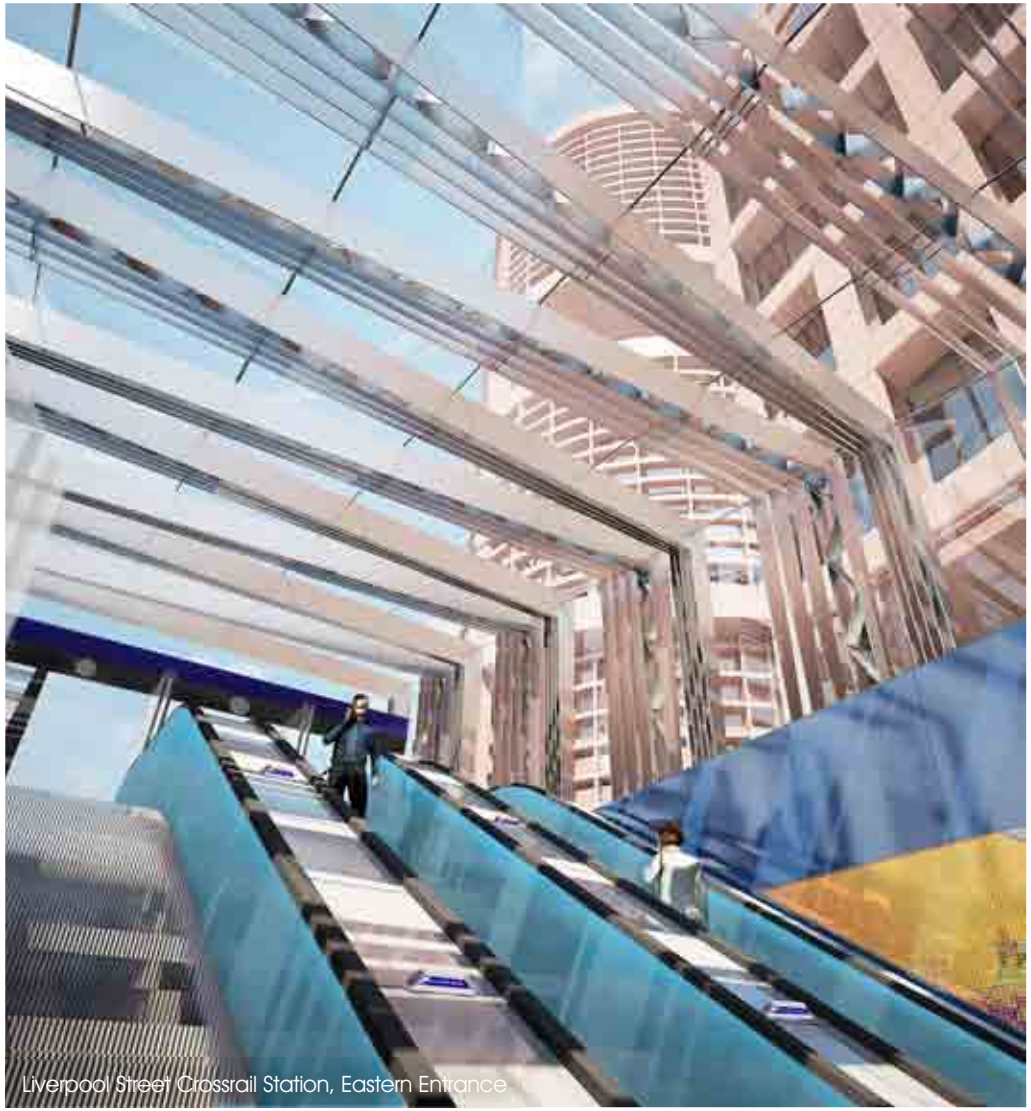


Performance in the Extended Zones of Influence reflects those of Inner Zones in terms of station locations that will see the greatest benefit and those which will continue to under-perform.

Some of the station areas in the East Section show that within the forecast period the Crossrail impact is unlikely to be sufficient to raise performance above the immediate identified Market Benchmarks. In Ilford, for example, values fail to reach the Market Benchmark (LB Redbridge Average Value). However the trend line suggests that, if improvement rates continue values will exceed the Market Benchmark by 2025.

In Abbey Wood, the trend suggests that values are unlikely to equal the Market Benchmark (LB Greenwich Average value) as a result of Crossrail until the very long term, although development activity and take-up rates are expected to increase; a conclusion supported and emphasised through developer discussions undertaken as part of the study. This suggests, that there are much larger challenges facing the property market than Crossrail investment alone can address, particularly related to property stock, deprivation, employment opportunities and the state of the physical environment.



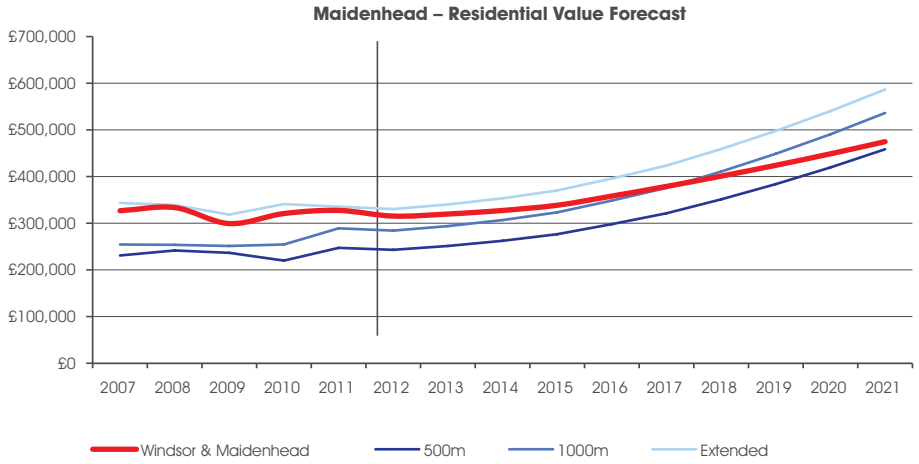

Liverpool Street Crossrail Station, Eastern Entrance

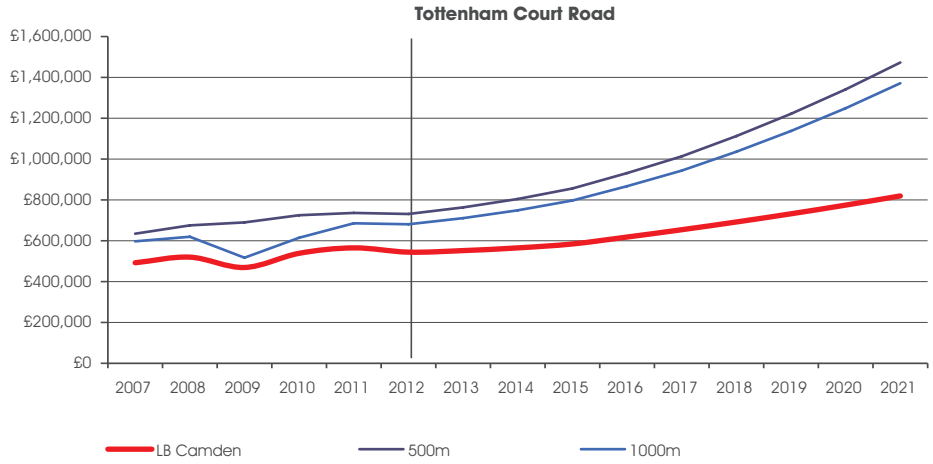
Variation in Effect at Extended Zones of Influence

Over the forecast period (2012 to 2021) there is an interesting general difference between performance within the Central Section and the West and East Sections.

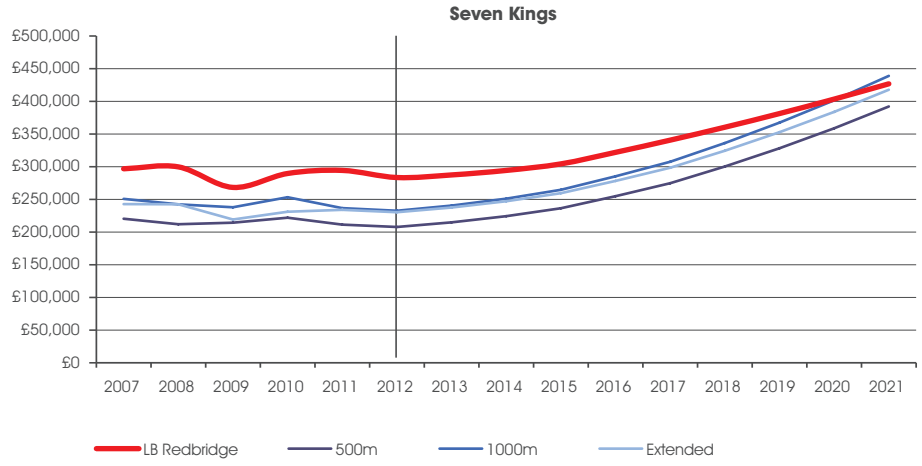
In the outer Sections, Inner Zone of Influence residential values tend to lag behind the larger Outer and Extended Zones of Influence further from Station locations. In most cases this Inner Zone of Influence lags behind the local authority Market Benchmark values identified for the particular station area. This could reflect adverse amenity perceptions commonly associated with rail stations in suburban areas (which are based on noise, parking approaches or surplus rail land that can characterise some areas).

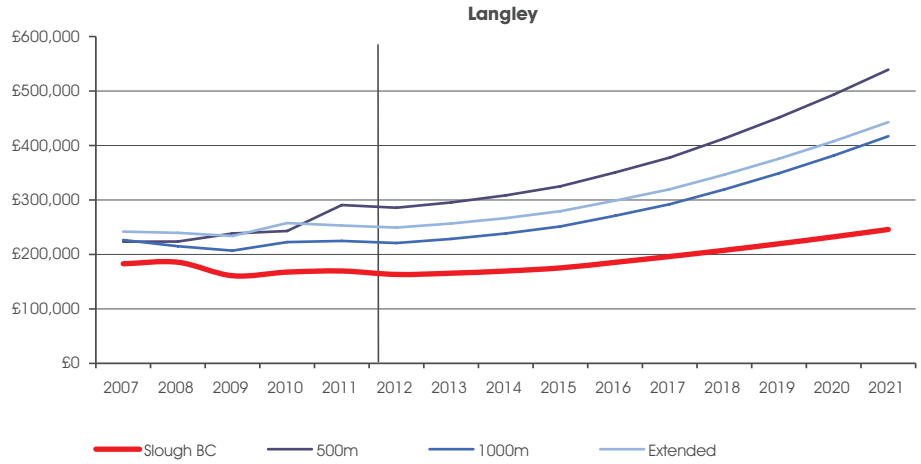
In the Central Section, the relationship is less clearly established with a number of Inner Zones of Influence recording values well in excess of the Market Benchmark or Outer Zone of Influence. This may be based on the more complete and high density built environment, and greater tolerance for transport impact within the Central city area. Many stations are, of course, below ground in Central London. The charts below provide examples of this relationship.





This relationship highlights the wider influences on the property market which have historically set value parameters. These factors are likely to include the nature, quality and scale of stock available, the quality of the environment and the negative impact of close proximity to over ground rail infrastructure, which will have an impact on residential prices. From the value forecasts it appears unlikely that the introduction of Crossrail will fully offset these issues, although the forecast indicates it will reduce the impact and narrow the difference in performance significantly. The impact of this wide range of factors on the property market highlights the challenge of isolating the direct impact of Crossrail and underlines the importance of relating the forecasts back to relevant Market Benchmarks.





The Impact of Timing

The Crossrail Bill received Royal Assent in July 2008, in effect giving the go-ahead for development and confirming the route alignment, station locations and timetable for delivery. Given the certainty of the major elements of Crossrail created by Royal Assent, some immediate benefits were felt in the areas around the stations as property owners and developers tried to capitalise on early publicity for the route.

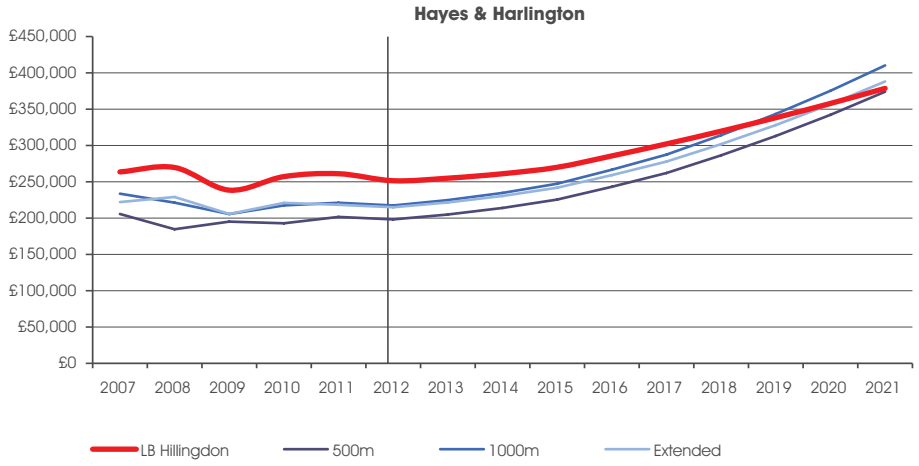
Early Benefits – Modifying Recession Impact

In order to identify any potential early benefits following confirmation of the Crossrail route, the historic performance of the market has been tracked. This data also forms the base information for future forecasting. In general there appears to have been little early benefit created by Crossrail in the immediate period after Royal Assent with no consistent pattern of uplift or deviation from the wider market trend established by the area benchmarks evident across the range of station areas.

The level of transactions recorded between 2008 and 2011 has fallen consistently from their peak, most likely as a result of the ongoing recession. However, in 2010 and 2011 a number of Station areas or individual Zones of Influence did witness some modest increases in transactions activity, albeit still significantly below the pre-recession peak. Given the small recovery in the housing market in this period (particularly in London) it is difficult to attribute this increase solely to any Crossrail influence, although it is likely to have been a contributing factor.

Turning to property value changes, again the evidence is inconclusive as to the direct level of impact of the Crossrail announcement in general across the Line. However, there has potentially been some influence at an individual station level. Langley, for example is showing house prices within the Inner Zone of Influence outperforming the wider Slough Market Benchmark.

The station at Hayes and Harlington demonstrates another potential early influence of Crossrail showing that, whilst it may not have caused values to increase it may have helped in offsetting the most significant impacts of the recession.



As shown above in the peak of the recession in the housing market (2009-2010) the Market Benchmark (LB Hillingdon Average Value) value curve showed a considerable fall, with values decreasing by approximately £30,000. However, within the Inner Zone of Influence values remained relatively constant, with only a small (approximately £3,000) change. The larger Zones of Influence demonstrated a similar dip in performance to the benchmark, suggesting that there may be a link between station proximity, Crossrail announcements and relative price stability.

Other areas where a similar influence is identifiable include:

- West Ealing;
- Ealing Broadway;
- Farringdon;
- Liverpool Street:
- Ilford; and
- Brentwood.

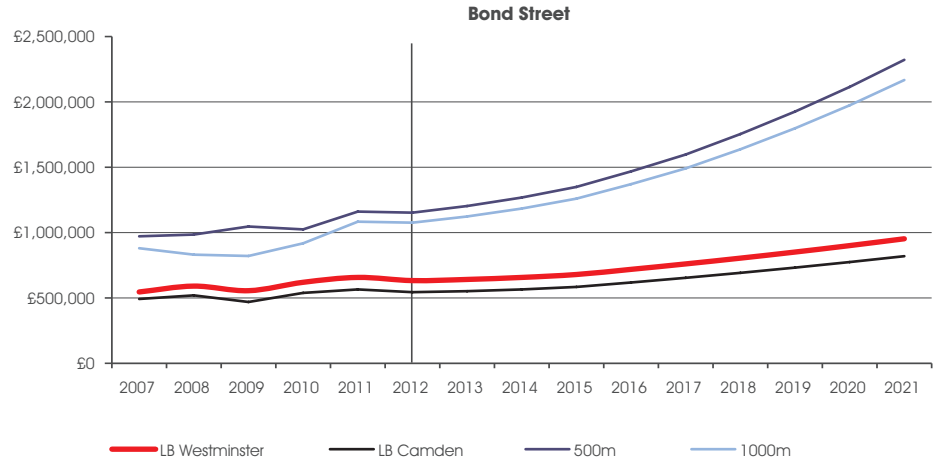
Despite the potential positive impacts that Crossrail may have in the pre-construction phase, it is important to realise that with historic data it is more difficult to disaggregate the direct Crossrail effect from other influences on local property markets such as major regeneration schemes or infrastructure initiatives. The whole impact cannot be attributed to the announcement of the Crossrail investment.

Construction Phase: 2012-2017 – Evident Impact

The second identifiable phase for which to test the impact of Crossrail is the current construction phase. It is within this period that the presence of Crossrail begins to become more evident along the route with major construction works underway on and under the ground and also significant coverage in the press for the major Over Site Development projects include:

- Paddington;
- Bond St (Davis St);
- Bond St (Hanover Square);
- Tottenham Court Road (Dean St);
- Tottenham Court Road (Charing Cross Road);
- Farringdon (Cowcross St);
- Farringdon (Lindsey St);
- Liverpool St (Moorgate); and
- Liverpool St (Blomfield St).

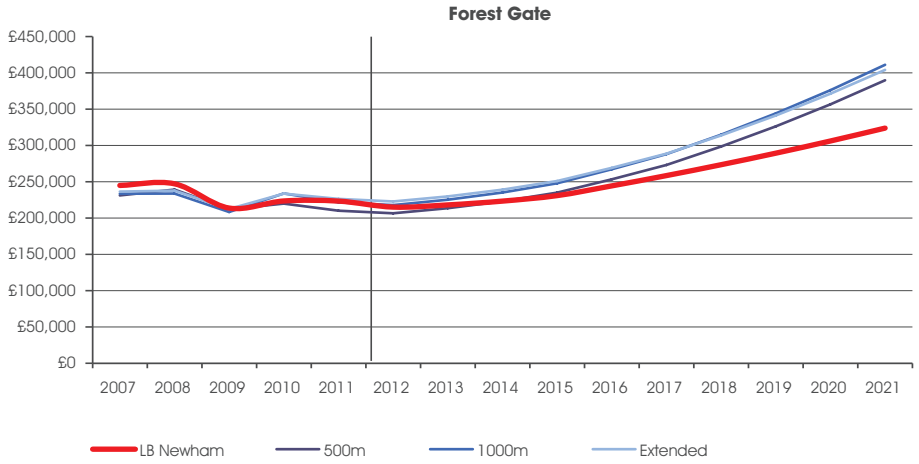
This increasing physical presence of Crossrail will establish the route more firmly in the minds of developers and land owners, confirming the location of stations in a more 'concrete' way than achieved by Royal Assent of the Crossrail Bill. As such it is reasonable to expect that this increased awareness will begin to influence behaviour and investment decisions. The impact on immediate surroundings will also be reflected in the £90m programme for public realm improvements.



In general the impact on values within the construction phase on the residential property market is forecast to be relatively modest, however it is forecast to be uniformly positive across the length of the route. This conclusion is supported by developer discussions.

In general the construction phase will see property values within the Zones of Influence begin to increase at a greater rate than the Market Benchmarks, this will have differing effects on the market depending on the relative 'starting position'. For example, in areas such as Bond Street, where values are higher than the Market Benchmarks, the gap between the Zones of Influence and the Market Benchmark values will begin to increase.

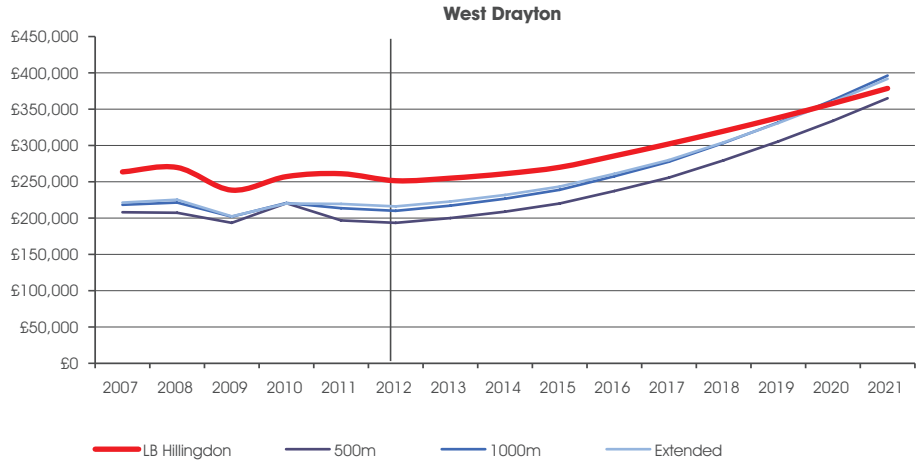
For Bond Street, at the start of the construction period (2012) values in the Zones of Influence are between 40% and 50% higher than the Market Benchmarks (LB Camden and LB Westminster Average Values), however by 2017 this gap has increased to between 50% and 60%. This is a considerable increase in performance that, given the structure of the forecast, can be attributed to the impact of Crossrail as it lies above the general London-wide growth trend.



In areas where values are not currently above the Market Benchmark then Crossrail is forecast to have a different effect, narrowing the level of underperformance or even creating the opportunity for values in some Zones of Influence to exceed Market Benchmark values.

Forest Gate station is a good example of this as all Zones of Influence values begin to exceed the benchmark level within the construction phase. The Outer and Extended Zones of Influence move above the benchmark from 2013. However the Inner Zone of Influence only reaches parity in 2015 given it starts from a position of relative underperformance.

This suggests that Crossrail has the potential to shift the market position within Forest Gate even before the line is operational, moving all Zones of Influence from a position of relative underperformance to one where values exceed the Market Benchmark



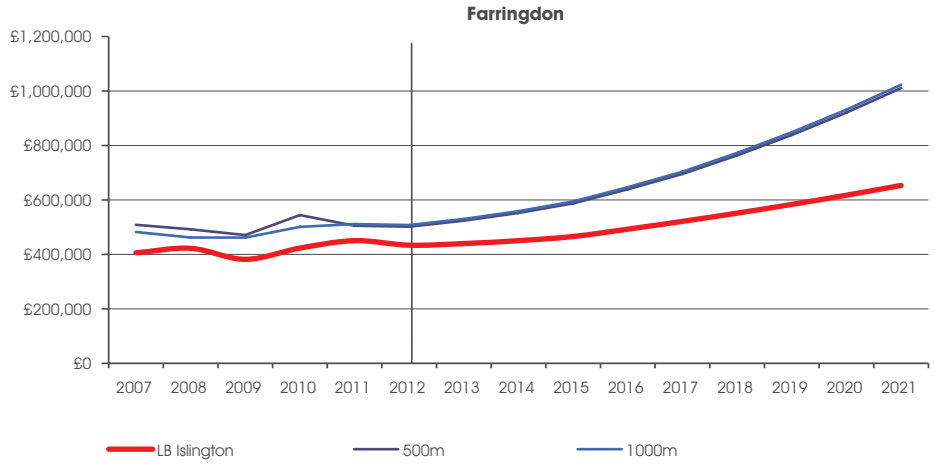
Crossrail Opening: 2018+ reatest Impact

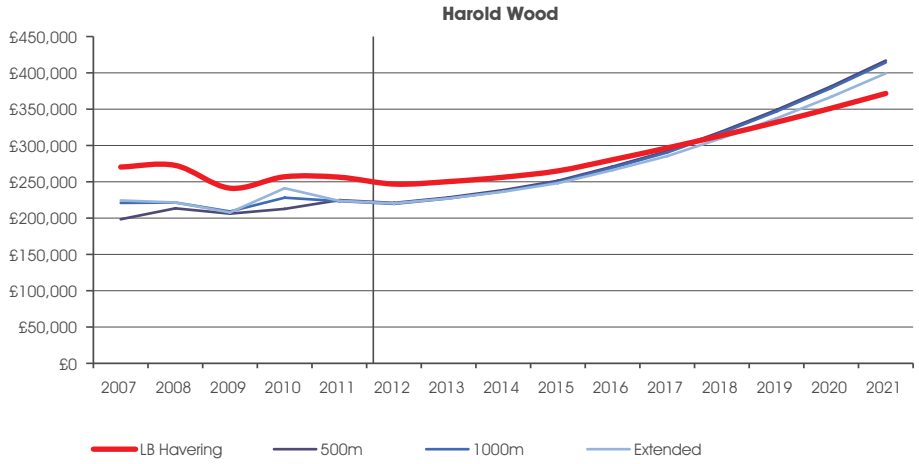
Crossrail's planned opening from 2018 will quickly see services running the full length of the Line and a full timetable in operation. It is during this period of early operation that the market is most likely to react to its presence and hence its greatest influence will be witnessed.

As expected, once the Line is fully operational and the full benefits can be experienced, there is likely to be a much more significant impact on residential values and transactional activity, with the comparative position of local property markets changing as a result of Crossrail and a number of Zones of Influence shifting from underperformance to exceeding Market Benchmark values.

As shown for West Drayton the Zones of Influence consistently under-perform when compared to the Market Benchmark (London Borough of Hillingdon Average Value) until 2019, when both the Outer and Extended Zones of Influence both begin to exceed these values. Whilst the inner Zone does not reach the Market Benchmark by 2021, the trend suggests that it would quickly catch up and potentially exceed the Market Benchmark value beyond the forecasting period. Once operational, Crossrail also appears to have the potential to provide an additional impetus to even out the levels of out-performance across Zones of Influence at individual stations.

Whitechapel provides a good example of this 'equalisation' effect. Whilst the differential in values between the two Zones of Influence does not alter post opening (as the rate at which values are forecast to grow in each Zone is constant), there is change to the relative underperformance of the Inner Zone of Influence when compared to the Market Benchmark (London Borough of Tower Hamlets Average Value). The Outer Zone of Influence begins to outperform the benchmark pre-opening in 2015, however the Inner Zone of Influence remains significantly below. However the additional benefits felt post-opening result in an acceleration in relative performance in the Inner Zone of Influence curve, shortening the period of under-performance and allowing values in this Zone to exceed the Market Benchmark in 2020.





In areas where the performance of all the Zones of Influence has been consistently above the local authority Market Benchmark the opening of the Crossrail Line will see values increase at a much greater rate, widening the gap in performance.

As shown, at the point of entering full operational mode values in both the Inner and Outer Zones of Influence are approximately 30% higher than the Market Benchmark (LB Islington Average Value). However, by 2021 this difference has increased to at least 35%. This indicates that in the three years forecast post-opening there is a positive benefit of at least 5% on average property prices in Farringdon.

However, the benefits and impacts are unlikely to be linear across all of the Zones of Influence. Indeed, within the Extended Zone of Influence the influence begins to diminish compared to the Inner and Outer Zones of Influence, having the potential to change the relationship between the Zones in the long term.

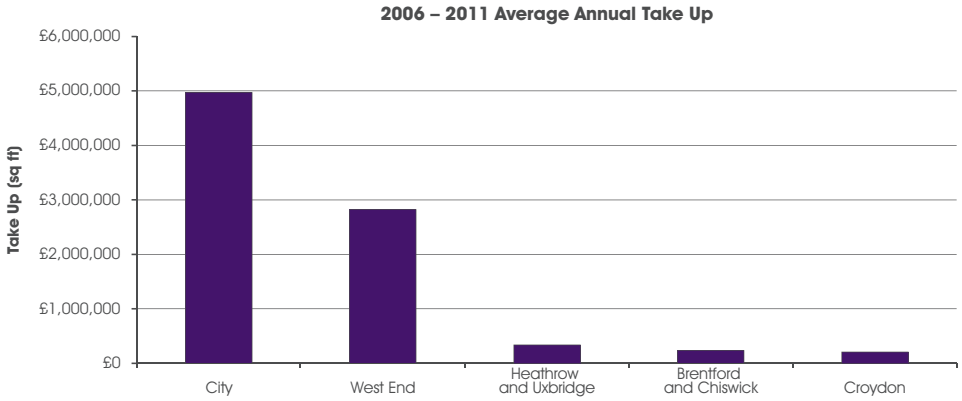
As shown for Harold Wood, all of the Zones of Influence have a similar value profile prior to Crossrail opening and begin to exceed benchmark values at roughly the same time, around the time the Line is fully operational. However, post-opening the Inner and Outer Zones of Influence begin to diverge from the Extended Zone of Influence. Over the whole period it can be seen that the relative position of the Extended Zone of Influence changes from the highest value in 2007 to the lowest in 2021.

Residential Places to Watch

Based on the residential market analysis it is possible to identify a list of Crossrail stations as particular places to watch where there are likely to be distinct or large scale impacts on the residential property market. In particular these include:

- Slough;
- Hayes & Harlington;
- Southall;
- Bond Street;
- Tottenham Court Road;
- Farringdon;
- Whitechapel;
- Isle of Dogs;
- Custom House; and
- Woolwich.

The growth and development potential of these areas are subject to a more detailed review in Section 5 and Appendix 6.



Annual Average Office Floorspace Take-up Central and Outer London Areas, 2006 – 2011

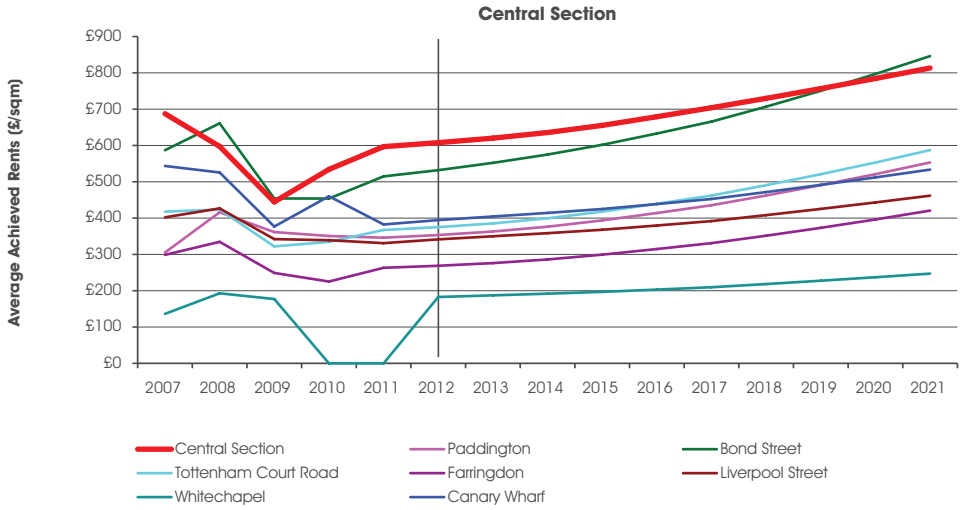
Office Markets

The office market within London functions in a very different way to the residential market. Business activity is not spread evenly across London and the wider South East region. Central London and the City of London in particular represent substantial concentrations of office based activity and employment in financial and business services, corporate occupiers and government occupiers. This is a fundamentally different market than that found in Outer London and beyond. There are also differences in values between the City of London, Westminster and Canary Wharf, and between central London as a whole and other office markets that Crossrail will run through.

It is widely recognised that the central business district within London lies within the Central Activity Zone (CAZ) which encompasses the West End, Mid Town, the City of London, City Fringe, and the Isle of Dogs / Canary Wharf areas. All have proximity to Crossrail stations. It is these locations that serve UK and international business activities and hence offer significant supply; experience large floorspace demands, and demand the highest rental levels. Capital values are correspondingly high. Outside of the CAZ, barring a few individual locations (such as Chiswick Park in West London), demand and values are lower and supply tends to serve a more localised market.

Essentially office markets outside of the CAZ area function in a similar manner to any non-London office market across the UK, responding to the same drivers of demand and supply. As such many experience lower levels of demand and often accommodate some level of over-provision of floorspace. This significant difference is shown in the average annual take-up rates data collated by GVA.

Given the strength of these existing market dynamics it is important to consider the impact of Crossrail as part of the wider mix of demand influences, rather than a single defining characteristic. Given its relationship to existing office centres, Crossrail is unlikely to create new office markets or major locations of new demand in its own right, but it is highly instrumental in reinforcing and growing office clusters and supporting occupier demand in established office locations.



Comparison to Line Section Averages

Similar to the residential market analysis, this section compares the forecast office market performance of individual station locations to that anticipated for Central, West and East Line Section averages.

Central Section

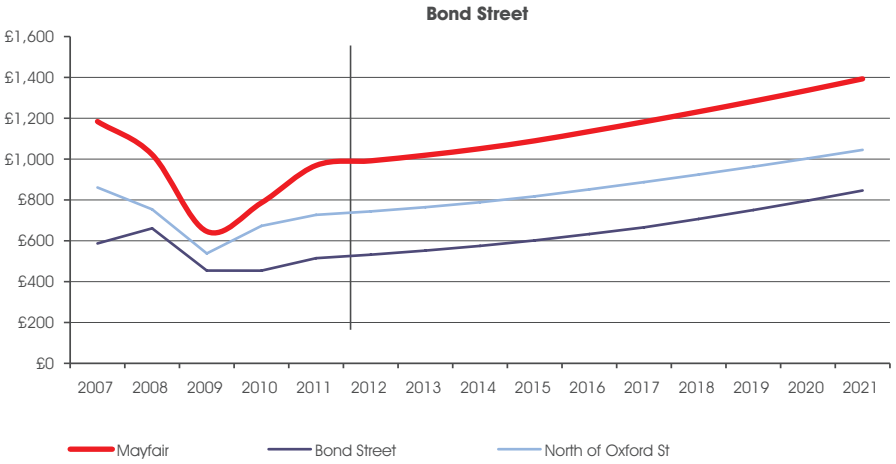
The Central Section of the Crossrail route will directly serve a number of the core market locations within the CAZ through stations such as Paddington, Bond Street, Liverpool Street and Canary Wharf. Such is the strength of the existing demand and international 'pull' of these locations, and the range of transport, retail, service and public realm amenities of Central London, Crossrail is unlikely to be the driver of a major step change in performance for the Section as a whole. Crossrail will act as one factor amongst a myriad that influence occupier demand, therefore it is more likely to support the existing strength of the market and enable growth trends to be maintained into the future.

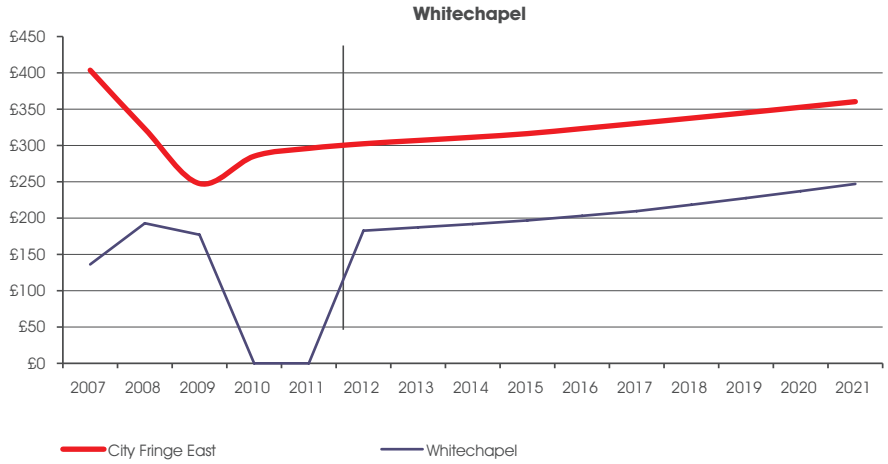
For some of the Station areas within the Central section, Crossrail is shown to have a positive benefit when values in the Inner Zone of Influence are compared to the Central Line Section average set by the average across the relevant local authority areas.

It should be noted that the Line Section average for the Central Section is distorted by the values achieved in the West End and Mayfair, which considerably outstrip those in the City, City Fringe and Canary Wharf. As such under performance compared to this Line Section average is not necessarily as significant as it may first appear given the range of values found across the Central Sub Surface Section and the sub markets it represents.

Whilst only one of the Station Area Inner Zones of Influence (Bond Street) will move above the Line Section average, post completion of Crossrail, other locations are also positively influenced. Inner Zones of Influence at Paddington, Tottenham Court Road, Farringdon and the Isle of Dogs will all see the performance improve, reducing the gap to the Line Section average.

However, neither Liverpool Street nor Whitechapel are likely to see an improvement in their performance relative to the Central Line Section average. In the former case this may be because of the large well established office market and plethora of transport infrastructure, whilst at Whitechapel the immediate Station Area is not currently or projected to be a significant office location. However, there are effects on absolute value performance, which are considered below.





The relationship of how values at Inner Zones of Influence around stations, and nearby office Market Benchmark (Local Comparator) reference locations are projected to change between 2012 and 2021 has also been considered. For the Central Section we have found that there is typically an identifiable reduction in the gap between Station locations and the Market Benchmarks. The gap typically narrows by between approximately 6%, as at Farringdon, and 11% as at Canary Wharf within the context of rising values overall. This indicates that immediate Crossrail office locations will receive a value boost from the service.

While adding to an existing direction of travel, Crossrail does create much needed new transport capacity, enabling a greater number of employees to enter the CAZ more efficiently.

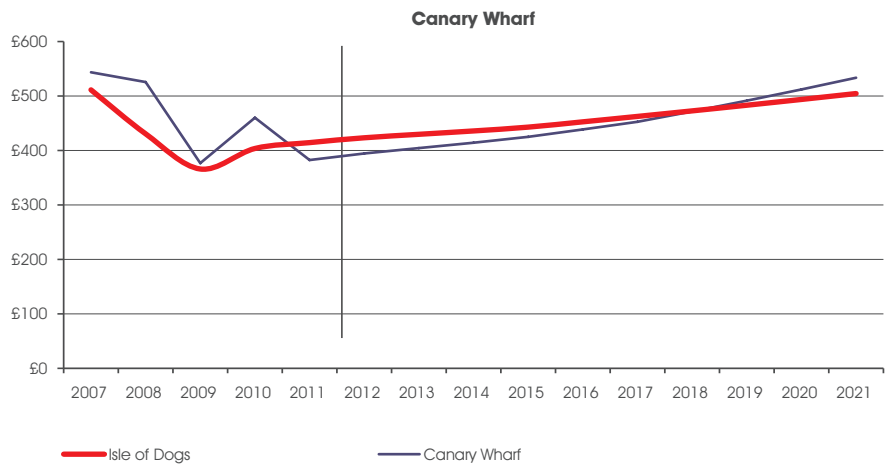
The Crossrail service to Bond Street exemplifies this capacity creating role, with its impact on maintaining office rental values (as a proxy for demand).

Office rents within the Inner Zone of Influence at Bond Street station are lower than both the Market Benchmark for Mayfair and the area to the North of Oxford Street. These two Market Benchmarks are identifiable sub-markets within the CAZ and are likely to compete with the Bond Street area for occupiers.

Over the forecast period the relative position of Bond Street to the Market Benchmark narrows by 8% in the decade from 2012 to 2021 within the context of generally rising values. This indicates the role of Crossrail in facilitating the ongoing strength of all these market areas, providing a more general benefit to the central office market and maintaining historic trends in the future.

It should be considered that maintaining values can be as important in high value areas as increasing them in other more modestly prices locations in the Central Zone. Maintaining a diverse supply across the entire Central Section will be an important part of maintaining London's unique global position. It is likely that, without the introduction of Crossrail, congestion on existing networks would begin to act as a brake on demand within these locations, creating a restriction on overall performance.

Whitechapel, within the City Fringe sub-market is one of the areas which will benefit most from Crossrail's introduction in proportionate terms. Reliable data for Whitechapel is available from 2008 onwards. Value trend data shows a consistent



gap between rents achieved in Whitechapel and rents for Market Benchmark (the Wider City Fringe East market) up to 2011.

However, although from a low base, values are expected to both increase and move closer to the Market Benchmark level by an identifiable amount. The difference will narrow by 8% over this period within the context of rising values at both. Whitechapel, in particular, will experience a significant change in accessibility by Crossrail. Crossrail will increase capacity at Whitechapel and provide it with new direct rail services, This will change the market dynamics within Whitechapel significantly. It should be noted, however, that gross office output for Whitechapel is relatively modest when compared to the overall scale of the nearby City of London.

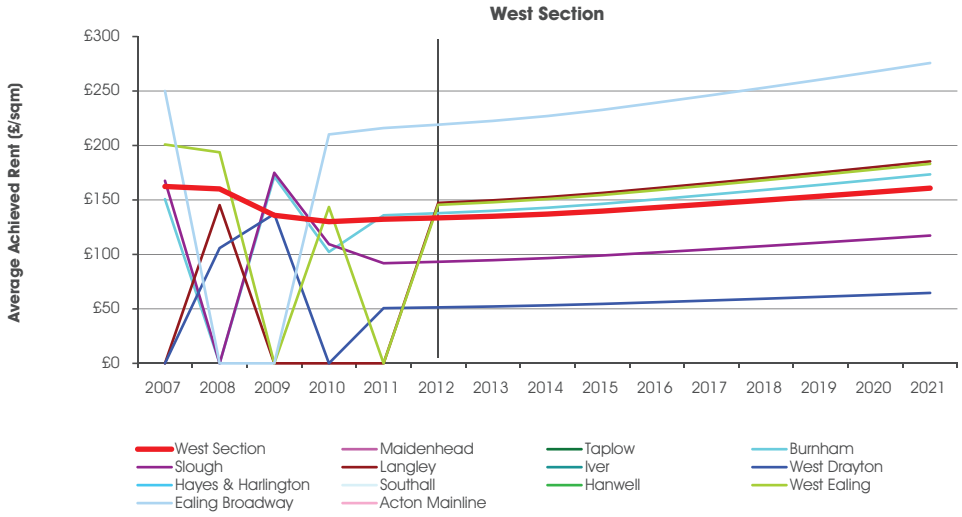
The influence of Crossrail on the Isle of Dogs is likely to be pronounced in scale, particularly once the route is fully functional in 2018. Not only does Crossrail alleviate the critical levels of congestion on the existing Jubilee Line service, it also connects directly to Heathrow and to significant residential locations to the West and East of London. As compared with Whitechapel, both the scale of development and the level of rents entailed are significantly higher, representing a much greater overall impact on extending a well established commercial office destination.

As shown in the graph above, the Inner Zone of Influence around the proposed Canary Wharf Station area is has been outperformed by the wider Canary Wharf Estate at the Isle of Dogs in the past. However the influence of Crossrail from 2012 onwards shows an increase in the pace of rent growth in the Inner Zone of Influence to the point where it will exceed the levels achieved across the wider estate even before the Station opens. Following opening, the forecast shows the Inner Zone of Influence values accelerating away from the wider Market Benchmark, reinforcing the influence of Crossrail in opening the Isle of Dogs to a wider labour pool, and broadening the direct international connections available to businesses. The overall value relationship changes by 13% as the locations change their relative positive across the decade, within the wider context of rising values.

Columbus Tower, Canary Wharf

2 Trafalgar Way, Canary Wharf

25 Canada Square, Canary Wharf



West Section

Outside of the Central Section, Crossrail is likely to have a limited impact in terms of generating additional take up of office floorspace, particularly in locations where there is little or no historic demand or take up. However some Zones of Influence will experience a positive benefit and see a boost to values when compared to the Market Benchmark.

The office market along the West Section of the Crossrail route has shown considerable volatility over time. This potentially reflects the impact of a smaller number of transactions on smaller markets and the more sensitive nature of the markets outside of the core central London locations. Forward forecasts have sought to 'smooth' this volatility and present the central tendency of a likely future scenario. It should be noted that for some areas no commercial office data was available, potentially reflecting an absence of such stock. These areas are not represented on the graph.

As shown below a number of station locations outperform the Line Section averageset by local relevant authority averages, both before and following the introduction of Crossrail for the immediate Inner Zones of Influence.

However, Crossrail does not appear to change the relative performance of any of the Station Inner Zones of Influence. None of the areas change their position significantly in relation to each other or the Line Section average. Indeed, on the West Section of the route, there is little or no change in the level of over or under-performance in station locations.

The relationship of values at Inner Zones of Influence around stations and nearby office Market Benchmarks is projected to change between 2012 and 2021. For the West Section there is typically a minor reduction in the gap between Station locations and the Market Benchmark. The gap typically narrows by approximately 3% over a decade within the context of modestly rising values. This suggests that wider office market dynamics will have a greater influence overall than Crossrail investment itself.

East Section

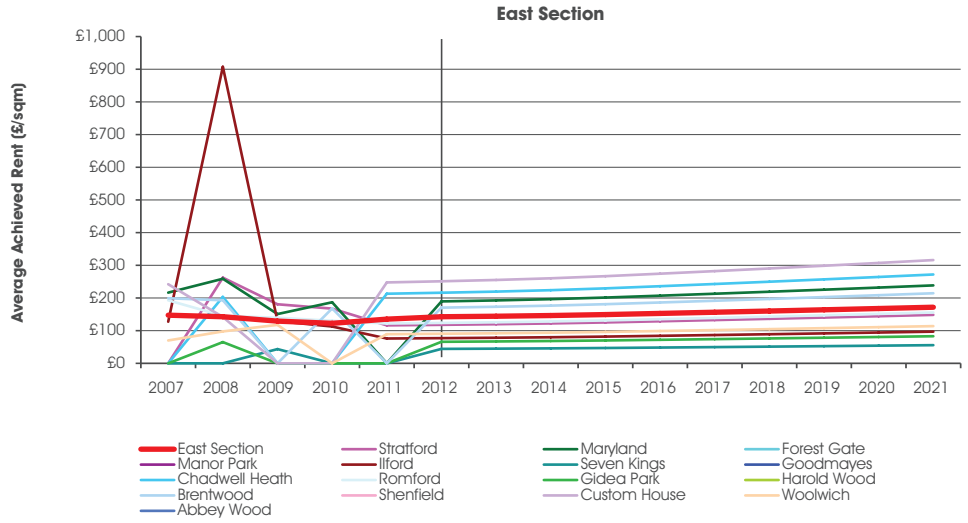
The East Section is not expected to see a significant impact on office values from Crossrail. Broadly, from 2012 onwards there is little or no change in the performance of each of the Inner Zones of Influence at stations on the East Section. Each continues a relatively consistent relationship to the Line Section average and each other up to 2021. There are two exceptions.

Custom House outperforms the Line Section average, and has a stronger rate of uplift than other locations. This is consistent with the desire to establish an office role at the Royal Docks beyond the current public sector representation.

On the East Section improvements are also forecast for Maryland. While it will not outperform its Market Benchmark over the forecast period, the gap will be narrowed against other locations.

Brentwood in Essex also outperforms the Line Section average. Brentwood is home to both corporates (BT) as well as a local town centre office market. The Zone of Influence around the station will decrease the value difference with its Market Benchmark. However, the overall gains in value are relatively modest.

We have also considered how the relationship of values at Inner Zones of Influence around stations and nearby Market Benchmark (local comparator) office locations is projected to change between 2012 and 2021. For the East Section we have found that there is typically a minor reduction in the value gap between Station locations and the Market Benchmark. The gap typically narrows by approximately 3% over a decade within the context of modestly rising values. This suggests that wider office market dynamics will have a greater influence overall than Crossrail investment itself.



(Note: single transactions can distort trends at individual locations)

However, there is a select group of locations where there wider contextual changes at scale and strong public sector investment and policy impetus may combine with Crossrail to advance office objectives. This includes Stratford and Custom House.

The potential of these locations does need to be considered in light of substantial place making initiatives, the visibility of the 2012 Olympics and specific land development programmes associated with the London Legacy Development Corporation. It is also important to consider that as values are projected to continue to increase at established locations, the appeal of the closest locations to Central London that could offer a new commercial office price category could be significant. The provision of Crossrail services is therefore potentially very significant.

Commercial Office Places to Watch

Crossrail appears to reinforce strong existing markets directions. It will underpin existing Central London locations. It will have the greatest effect where it creates new distinct capacity for existing Central London locations, as at Canary Wharf.

The key role for Crossrail in terms of the commercial office market will be to support the ongoing functioning and growth of the London core markets of the West End, City and City Fringe, and the Isle of Dogs. Through capacity enhancements at all Central Section stations and the broadening of accessibility to the Isle of Dogs. This is likely to be manifested both in increased values and take up but also increased development rates.

However, where office markets are limited in scale, or diminishing as part of wider Outer London trends, Crossrail will not change these directions. In these instances Crossrail cannot reverse the over-riding market trend; however it is serving to soften the rate of comparative decline and may act as a driver for the retention of some business activity which may otherwise have been lost.

Outside of this London core, Crossrail's influence will be limited, in particular there may be no specific influence where primary markets are driven by local demand and therefore 'strategic' access is less of an issue for occupiers. In these locations other market factors will outweigh the impact of Crossrail and markets are likely to follow established trends.

The other key influence of this trend, in areas where residential values are strengthening significantly, may be to increase the pace of changing uses within the Station Zones, particularly seeing a shift from commercial to residential activity. Whilst values do not fully identify this potential, divergent trends in each market sector would suggest an area is ripe for change and may encourage landowners to seek redevelopment.

Whilst there are positive benefits within certain Zones of Influence these will predominantly support existing trends, and are therefore unlikely to change the character of most station hinterlands. Given the period over which most of London has developed most station areas have an established 'role' within which Crossrail will serve to reinforce the predominant characters. The potential for increases in value and, new commercial space or a marked change of use can be expected at:

- Tottenham Court Road;
- Farringdon;
- Liverpool Street; and
- Canary Wharf.

There are, therefore, a limited number of places to watch for office development and activity beyond market trends, these include:

- Stratford;
- Custom House; and
- Brentwood.

There are also areas where divergent market trends across residential and office sectors will lead to changes of use, potentially shifting the balance of activity within the 500m Zone of Influence from commercial activity to residential. In these cases Crossrail will provide a significant driver for change and assist in helping areas where the office market is already receding to find a new role and function. Places this analysis indicates includes:

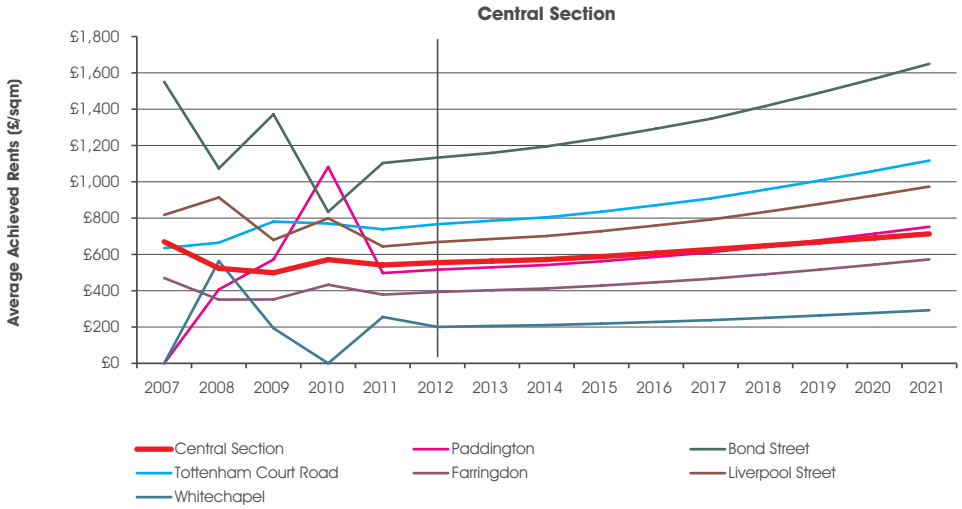
- Slough;
- West Drayton;
- Hayes & Harlington;
- Ilford;
- Romford; and
- Woolwich.

Retail Markets

As the Driving Forces section previously identified, there are a range of factors influencing the retail sector including:

- The role of Central London as a regional, UK and international tourist destination;
- E-tailing and online shopping;
- Floorspace sales efficiency trends;
- The role of new big centres;
- Declining overall retail requirements impacting traditional high streets and town centres; and
- Convenience foodstore restructuring.

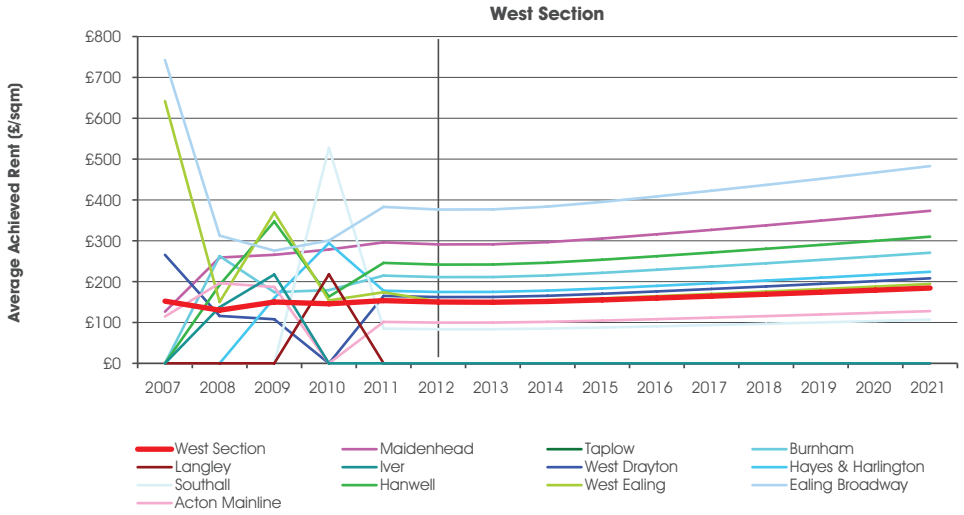
These represent a wide range of significant and countervailing trends for the retail sector. The level of development that occurs in terms of floor-space will also be significantly influenced by residential growth and local policy provisions. As such, the specific impact of Crossrail cannot be accurately identified, however, potential impacts can be suggested.

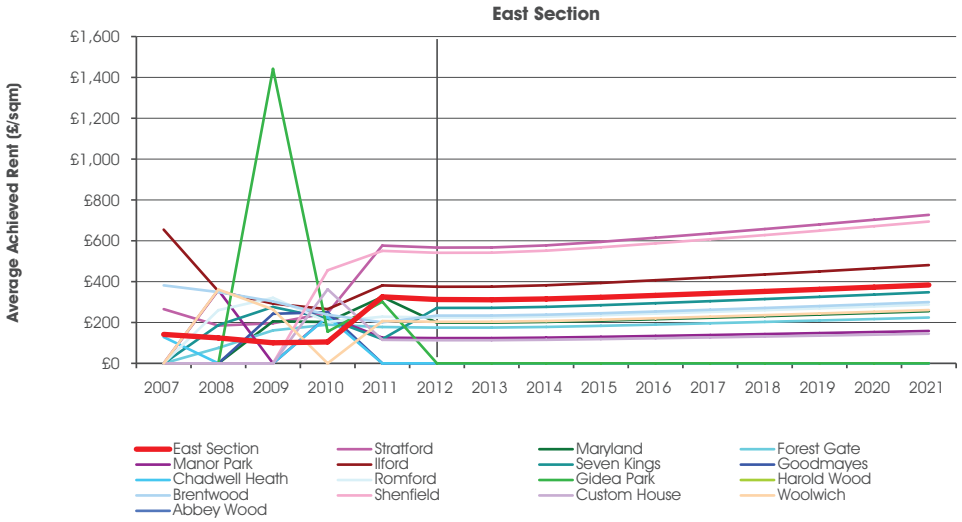


Central Section

Access to Central London shopping destinations, particularly Oxford Street, Bond Street and Tottenham Court Road in the West End will be significantly enhanced by Crossrail. The line will add to existing services, reducing journey times and eliminating the need to change mode or line and increasing the convenience and attractiveness of existing West End destinations, offering further support to them over the long term. However, in the context of a wide range of UK and London-wide retail trends, the specific impact that Crossrail may have is less identifiable.

There may be greater impact to the east however. One New Change, Canary Wharf and Stratford represent major and recent additions to the Central London and eastern fringe shopping offer. Crossrail has the potential to significantly improve the speed and convenience with which residents of the wider East London hinterland can access this. Direct services to Stratford in particular can be expected to present new challenges to established shopping centres at Ilford and Romford. Direct access to Canary Wharf has the potential to impact Woolwich town centre in particular. Each of these more local town centres will need to maintain an attitude of continuous improvement.





West Section

In addition to the gravitational pull of Central London shopping, there are potential effects within each section. Again, Crossrail will be one of many influences on retail activity. However, it is likely to reinforce trends towards agglomeration in comparison shopping. Slough and Ealing Broadway in particular have the opportunity to draw on increased accessibility from their immediate hinterlands. At the same time, more localised centres at Hayes and Southall may find themselves increasingly focused on meeting local convenience retail needs. However, Southall may also benefit from increased catchment for its specialist Asian retail sector. Demand for such retailing will be likely to grow with increased residential populations supported by Crossrail services.

East Section

There are particular challenges presented to existing town centres by new, faster and direct services to Stratford and Canary Wharf. There is also an opportunity to draw on increased accessibility from local hinterlands. A strong focus on quality and a locally distinctive role for Woolwich, Ilford and Romford based on a growing local population and appeal to residents from intermediate stations may be reinforced by the enhanced access provided by Crossrail.

Image: Aviva Investors

Moorgate, Liverpool Street Crossrail Station

5. The Opportunities for Development Activity

5. The Opportunities for Development Activity

Summary

This section considers the opportunity for development activity at and around each Crossrail station. The character of the station areas, their wider Zones of Influence and the planning policy context are important factors in understanding the development effects that Crossrail will catalyse. Crossrail is expected to have significant impacts at a range of station locations across Central, West and East line sections. Key places with potential for increased development focus include:

Central Section

- Tottenham Court Road;
- Farringdon;
- Whitechapel; and
- Canary Wharf.

West Section

- Maidenhead;
- Slough;
- Hayes and Harlington;
- Southall; and
- Ealing Broadway.

Canary Wharf Crossrail Station

East Section

- Custom House;
- Woolwich;
- Abbey Wood;
- Stratford;
- Ilford;
- Romford; and
- Shenfield.

Introduction

This section considers the opportunity for development activity at and around individual Crossrail stations. The character of the station areas, their wider Zones of Influence and the planning policy context are important factors in understanding the development that Crossrail could stimulate. It is supported by a more detailed analysis of each Crossrail station's area included in Appendix 6.

Central Section – Paddington to Canary Wharf

The Central Section, includes new stations from Paddington through to Canary Wharf. New, dedicated Crossrail stations are under construction within the sub-surface section of the route. Coupled with the Over Site Development projects, the provision of new rail tunnels and track infrastructure represents a truly transformational change in the level and quality of access and interchange through the heart of Central London. Direct connection to Central London from the west and east without the need to interchange between rail, tube or bus provides the basis for a transformational effect on property market development activity.

The current construction works and the progress in securing relevant planning permissions for the Over Station Development sites serve to raise the visibility and profile of Crossrail in the Central area. In each case, the works are already starting to have an effect on development market interest and activity in the Inner Zones of Influence at each station. Development activity is further supported by investment in wider public realm enhancements and in proactive planning policies that assist and influence this market focus when coupled with the existing prime retail, commercial and residential values. Crossrail will work to shape and reinforce market sentiment within the Central Section and promote the redevelopment and intensification of sites at and in close proximity to the Over Site Developments.

The review of development market activity and of the potential for new development during the Crossrail construction phase and after opening, identifies the following station locations as having the greatest potential to become property development hotspots. These are the stations where the greatest market activity and potential for significant property change will be driven by Crossrail's development. They are:

Tottenham Court Road – capitalising on the dated quality and appearance of the area, the consolidation of land ownerships promoting new development activity, and the ability to intensify and re-use sites for commercial retail, office and residential uses;

Farringdon – the increase in accessibility and the ability to interchange directly with Thameslink will open up new commercial office and related mixed use opportunities including residential development;

Whitechapel – with the new station increasing accessibility and the presence of available large development opportunity sites to support new activity; and

Canary Wharf – supporting the evolution and growth of Canary Wharf with new levels of transport accessibility being essential to unlock additional commercial and residential development.

Table 1 in Appendix 6 provides the market activity context and greater detail of the policy position for each of the Crossrail stations in the Central Sub-surface section of the line.

West Section – Maidenhead to Acton Main Line

The west section of the Crossrail line runs from its terminus station at Maidenhead to Acton. The review of previous development market activity and of the potential for new development during the Crossrail construction phase and after opening identifies the following station locations as having the greatest potential to become property development hotspots, where the greatest market activity and potential for significant property change may be supported by Crossrail are considered to be:

Maidenhead – making best use of the station's connection to the Town Centre, its position as the western Crossrail terminus and its established plans for growth in the Centre and more widely particularly for residential development;

Slough – serving the established Heart of Slough regeneration programme, making best use of identified development sites and existing market for town centre and residential uses and potential for office replacement;

Hayes and Harlington – facilitating a step change in the use of land, intensification and re-use of older commercial office stock and complementing new mixed use developments already planned;

Southall – linking the District Centre and local residential areas to Central London and assisting

in opening up development opportunities in the Town Centre and at the Southall Gas Works site as a major brownfield opportunity; and

Ealing Broadway – promoting and supporting established plans for re-development of Town Centre sites including the station and surrounding areas stretching along the Uxbridge Road towards West Ealing. Capitalising on current residential and retail/mixed use schemes.

In the West Section of the line, Crossrail offers improvements to each of the stations as it uses the existing rail line and station infrastructure as the basis for the new route.

Development market activity and opportunity will undoubtedly be supported by Crossrail's significant investment in enhancements to the stations themselves as well as the improved journey times. This in turn, and in combination with supportive planning policies promoting residential, retail and commercial employment growth at and in the Zones of Influence surrounding many of the stations, indicates that Crossrail's potential development opportunity impact will be significant.

This potential is likely to be focused primarily on new residential development. Inner Zones around some stations, particularly where they are in close proximity to existing town centres, will also support new and enhanced retail and leisure provision as part of mixed uses.

Retail development opportunities will be mostly focused into the defined town centres as part of mixed use scheme under current planning policies. The pace and timing of such developments, while positively influenced by Crossrail's construction will be more widely affected by national economic trends and the long term re-shaping of retail activity in the UK.

Residential use is likely to form the principal development market interest due to the continued long term demand for housing in the Berkshire and West London areas and due to the over-supply, take-up rates and viability issues currently evident in the development of new commercial employment office floorspace.

There are clear, available development sites and areas of under-used land in and around many of the stations that offer the development market the opportunity to bring forward appropriate schemes.

There are exceptions to the significant development market potential. Activity at Taplow, Iver and Langley outside London and in Hanwell within London will be constrained by planning policy, the availability of development or intensification sites close to the station and the constraints placed by Conservation Area and heritage designations. For the stations outside London, Green Belt policies will act as a restraint on significant outward development expansion into greenfield sites.

Table 2 in Appendix 6 provides the market activity context and greater detail of the policy position for each of the Crossrail stations in this section of the line.

East Section – Custom House to Abbey Wood and Stratford to Shenfield

The East section of Crossrail is split into two sections of the route. The first runs from Custom House in the Royal Docks area of Newham eastwards to the Abbey Wood terminus in the London Borough of Greenwich. The second section runs from Stratford station in Newham eastwards to Shenfield in Brentwood Borough, Essex. Tables 3 and 4 of Appendix 6 provide more details of the opportunity for development on this section of the Crossrail line.

Development market activity and opportunity will undoubtedly be supported by Crossrail's significant investment in enhancements to the existing stations as well as the transformational effect of new railway line and stations at Custom House, Woolwich and Abbey Wood. The effect on journey times, the ability to make direct journeys into the heart of Central London and the significant benefits in terms of route interchange are further factors driving development market interest and activity in the Eastern Surface section.

Proactive and positive planning policies promoting significant residential, retail and commercial employment growth at and in the Zones of Influence surrounding many of the stations give the basis to support Crossrail's potential development opportunity impact.

This potential is likely to be focused primarily on new residential development in all station Zones of Influence. Residential use is likely to form the most significant development interest due to the continued long term demand for new

housing in East London and in Brentwood and Shenfield in Essex. The improved accessibility and enhanced travel times that Crossrail will bring to existing centres and residential communities will have a positive effect throughout this section of the route to encourage additional residential development both in the Inner Zone of Influence and more widely in the Outer and Extended Zone of Influence around each station.

The Inner Zone of Influence around some stations, particularly where they are in close proximity to existing town centres such as Ilford and Romford supporting significant new and enhanced retail and leisure provision as part of mixed uses.

For the smaller and more local centres, Crossrail will continue to reinforce retail, employment and leisure viability although the development market interest at and around these stations is more likely to emphasise a demand for residential development.

The availability of development sites and the opportunity to intensify or change the use of property is evident around many of the stations in this section of the Crossrail route. Such availability will, as Crossrail starts to operate, accelerate the pace of new development as the market is able to capitalise swiftly.

There are a number of Crossrail stations and wider locations along the route where there clear heritage and conservation policies protecting the existing character of the area, or where current land use patterns are well established (especially mature residential suburbs such as Gidea Park and Harold Wood for example) which lack larger scale development opportunity sites. In these constrained cases, the development effect arising from Crossrail is likely to be limited to increases in property value over time rather than larger scale or more comprehensive development, change of use or intensification.

The East Section of the Crossrail route provides both improvements and enhancements to a number of existing stations, but also the development of new line and stations at Woolwich and Abbey Wood. The improvements to existing stations will support development market activity, but it is the transformational effect of new stations and of the rail line opening up that will have a particularly significant and catalytic effect on the Zones of Influence around those stations.

Across the Custom House to Abbey Wood branch of the East Section, the following station locations have the greatest potential to have an increased development focus:

Custom House – with its supply of significant development opportunity sites, proximity to Excel and the advanced plans and investment programmes evident in this area of the Royal Docks;

Woolwich – transformational change in the immediate station area and more widely in the Town Centre, supporting its growth to a Metropolitan Centre facilitated by the new Crossrail station's leap in accessibility and journey time improvements;

Abbey Wood – new residential development catalysed by the new station opening up this area to employment opportunities, services and facilities provided elsewhere along the Crossrail route, although a range of regeneration interventions will be required here.

In the Stratford to Shenfield branch of the East Section, the station locations with the greatest potential to become development focal points influenced particularly by Crossrail are considered to be:

Stratford – supporting the next phase in the evolution and growth of Stratford Town Centre, particularly supporting the residential and office market;

Ilford – supporting the established plans for Town Centre renewal and growth and reflecting the availability of potential large development sites at and around the station and in the centre. Crossrail's positive effect in changing the visibility of Ilford will also drive market interest in this location;

Romford – assisting the plans for the Town Centre's growth and leveraging from recent residential and mixed use developments completed. Crossrail's positive effect in changing visibility and perceptions will also drive market interest in this location; and

Shenfield – as the eastern terminus of Crossrail, the Zone of Influence around this station will benefit from improved journey times and quality of service above that currently experienced that will in turn support future residential development in the wider area.

Woolwich

Spitalfields. Nearest Crossrail Station: Liverpool Street

. Concluding Themes & Crossrail Places to Watch

. Concluding Themes & Crossrail Places to Watch

Introduction

This section draws out conclusions on the key themes of the property market and development activity analysis.

With a headline additional effect on value of some £5.5bn for the period 2012 to 2021 and supporting or influencing the delivery of more than 57,000 new homes and 3.25m sqm of commercial office floorspace within 1km of the stations along the route, Crossrail's investment will have a transformative effect on the property market and development activity over time.

A significant amount of information has been assembled across a wide range of property market, planning and development sources. The following is intended to distil and synthesise this information at the highest level to identify the locations where the most significant property impacts and divergence from current development trends can be anticipated and attributed to Crossrail's development.

Crossrail Locations

Crossrail is a national scale infrastructure investment covering a wide and diverse economy and a complex urban geography. Crossrail stations under consideration represent a range of market characteristics and development opportunities as well as a series of barriers and challenges to that development. Key characteristics are driven by the urban morphology, property market and planning policy context that the stations will sit within. These contexts can be summarised as:

Central City – encompassing the West End, the City and Canary Wharf in London;

Major Regeneration Areas – encompassing Paddington and the Old Oak Common area, Stratford, the Royal Docks, Woolwich and Abbey Wood where large scale change is projected;

Outer London – from West Drayton to Acton Main Line, Maryland to Ilford and Romford;

Suburban Communities – from Maidenhead to Slough and Brentwood to Shenfield.

Intensity and Density

Crossrail station locations sit in a wider variety of activity contexts reflecting daytime or peak period population and built density. This includes:

Highest – the highest employment, footfall and, or, residential zones;

High – town centre or transport interchange environments;

Medium – local centres and corridors, with a mixed employment and residential base;

Low – lower density residential areas.

Individual locations will also reflect a mix of 'destination' and 'origin' characteristics linked to a commercial and employment role or a residential role and function.

Relative Scale of Change – Impact of Crossrail Services

There are also fundamental categories that describe the relative scale and impact of change from new Crossrail services on the immediate context. This is based on the intensity and density of activity evident today.

The potential change is related to the net additional service improvement, the scale and density of development and economic activity in place and planning policy support for future growth. These can be categorised as:

Creating change – where a substantial change in current development quantities and types of land use can be expected;

Reinforcing directions – where support is given to active, in-progress development programmes to reflect changing property values;

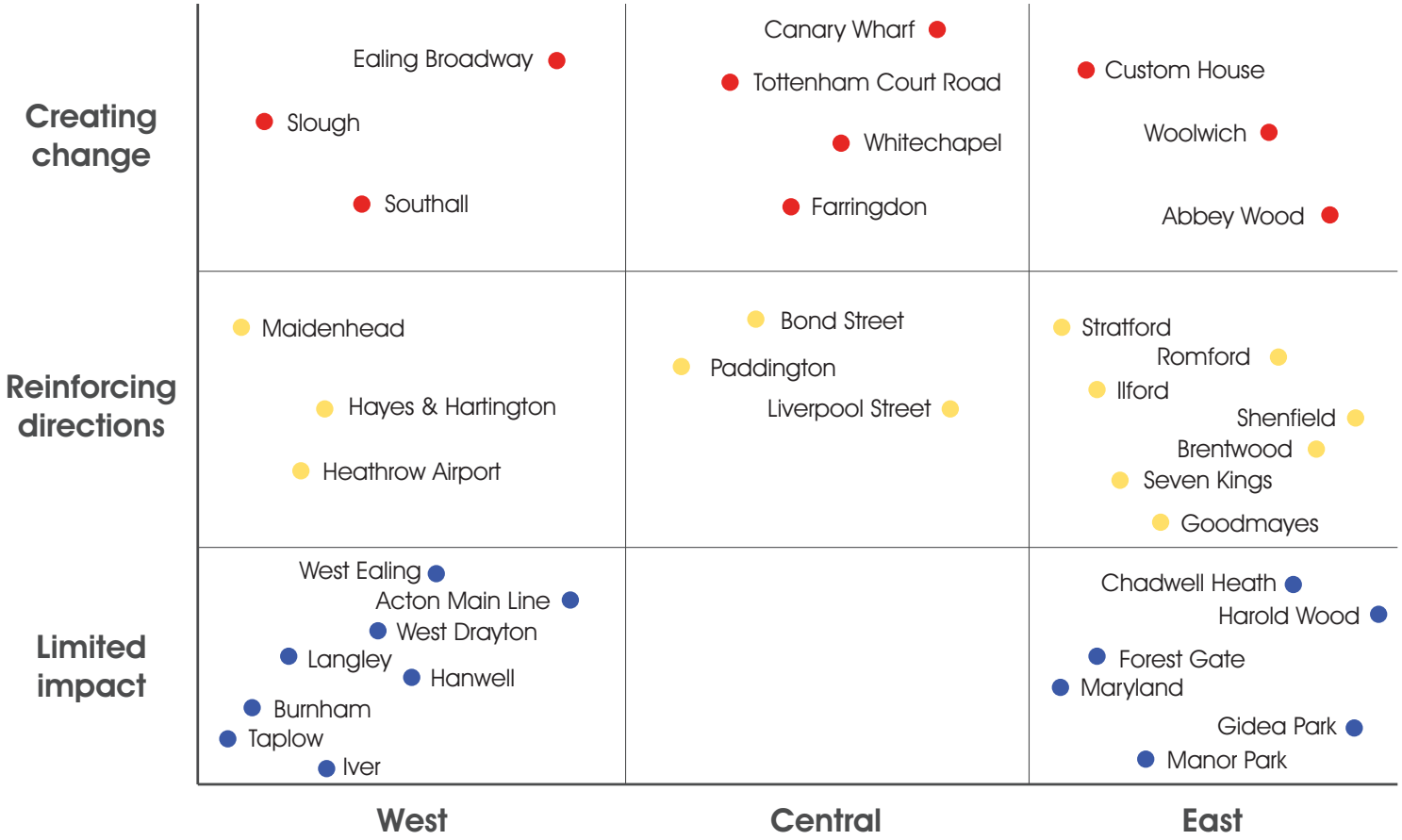
Limited impact – where little change to the current development context can be expected.

Places to Watch

Based on this approach and a synthesis of the analysis findings in the previous sections, it is possible to identify the Crossrail 'places to watch'.

Locations where Crossrail will create a significant change and have good development capacity form the key criteria for their identification as 'Places to Watch'. These criteria establish a mix of places, from high profile market leading locations such as Canary Wharf through to key regeneration opportunities such as Abbey Wood.

Locations with medium or low levels of activity where existing directions will be reinforced or there is low impact are not considered likely to offer significant prospects for property market development or change.



Liverpool Street

Working in partnership with developers, local authorities and key stakeholders, Crossrail is leading placemaking. The catalytic effects of new stations will revitalise the concept of the station being the centre of a community hub.

Clerkenwell, nearest Crossrail Station Farringdon

Whitechapel

Central St Giles, nearest Crossrail Station Tottenham Court Road

Exmouth Market, nearest Crossrail Station Farringdon

Appendix 1

Review of Previous Property Impact Studies of ew Rail Infrastructure

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Review of Previous Property Impact Studies of ew Rail Infrastructure

Purpose and Approach

A focussed survey of evidence of the impact or relationship between land and property values and transport infrastructure improvements was undertaken. This was to ensure that as wide an evidence base as practical was assembled to help in assessing the property impacts arising from Crossrail, running from Maidenhead in the west through Central London and eastwards to Abbey Wood and Shenfield in Essex. In particular, the evidence from the literature review was to be used to help assess the potential nature and scale of property impact that Crossrail could generate.

Much of the evidence reviewed has focussed on post completion analysis (i.e. measuring what actually happened), rather than an analysis of forecasts of impacts. This means that information regarding suitable ways of forecasting impacts or relationships is limited. Nevertheless, the evidence base on actual (or inferred) impacts is still valuable as a means of judging the 'realism' of the modelled impacts.

The review of evidence has been based upon the material produced as part of the study GVA completed for the Scottish Executive (Developing a Methodology to Capture Land Value Uplift Around Transport Facilities, 2004), with UCL providing a detailed literature review; and subsequent work for Centro on the Black Country Rapid Transit Spine (2009).

The focus was upon the most recent evidence (mainly post-1990) from the UK and North America. However, some key pre-1990 work was included in the review.

The literature includes academic papers and consultancy reports, plus some more polemical pieces. For further insight into the literature on public transport and land values see ARW and UCL (2002). There have been a series of related reviews carried out on transport and competitiveness (Llewelyn Davies and UCL, 2003) and on the importance of transport in business location decisions (Napier University, 2003).

Review Findings

Transport Improvements and Property

Transport investment results in changed levels of accessibility, and these improvements are reflected in the cost benefit analysis that is carried out prior to any investment being made. The principal component of benefits is travel time savings to the users of the system. This in turn has secondary benefits for employers as their labour market areas can be extended and for employees who now have a wider range of jobs available within a given time constraint. There are also increased catchment areas for all types of services and facilities (schools, shops and leisure facilities for example).

These transport benefits are well known, but where there is much less knowledge is in the other potential impacts of transport investments, principally on land values and property values (Banister and Berechman, 2000; ARW and UCL, 2002). The findings reported here focus on the impacts in terms of property value uplift, rather than the wider economic effects on employment, regional investment and patterns of consumption. This should enable the assessment made of the Crossrail impacts to be put into a realistic context.

There is no single accepted methodology for assessing value change associated with new transport infrastructure investment. This is due, in part, to the complexity of the issues under analysis and partly due to the lack of suitable time-based data. As such, the evidence presented here needs to be viewed cautiously and needs to be understood as indicative.

In this respect it is worth noting that current conventional thinking is that there may well be additional (value added) benefits associated with new transport infrastructure, but these are dependent on other factors being present in the local economy. Principal among these is:

- Supportive local economic conditions relating to labour and property markets;
- A supportive planning policy and political environment that is conducive to inward investment; and
- The availability of both private and public funds for investment.

If these necessary supporting conditions are present, then the transport investment might well lead to an enhancement in property and land values.

Overview of Impacts

There is a growing body of empirical evidence relating to changes in commercial and residential property market values and transport investment. Table A1 presents an overview of some of these findings.

The information from the studies examined have been summarised according to the

variables specified. This was considered to be the best means of presenting a large quantity of information in a digestible format.

It should also be noted that much of the information is not directly comparable between projects, as definitions vary, data assumptions are not always specified, the quality of the data is mixed, and the time span over which change is measured is also variable or not specified. Comparison between studies is therefore problematic and often requires matters of judgement.

Despite the above caveats, as can be seen from Table A1, the evidence is broadly positive with most difference being found between the residential and commercial markets, the time over which impacts take place, and how close areas were to the stations. Parsons Brinkerhoff (2001) conclude that "it is clear that in most cases access to rail systems is valued by property owners and there is little support for the suggestion that proximity to rail actually decreases property values".

In order to help judge the potential scale of impact that Crossrail may have, the range of impacts that are outlined in Table A1 are summarised below. The impacts have been grouped into commercial and residential sectors, rather than in terms of the individual studies as listed in Table A1. The emphasis has also been upon actual numbers or ranges, rather than 'directions' of impact. This should provide more generalised guidance that can be applied to Crossrail. However, it should be noted that these impact ranges are indicative only.

Commercial Sector

- Land values: increase in values of 23%, 120% and 146% reported.
- Property capital values: limited quantitative data, but impacts ranged between 25%-45%
- Property rental values: impacts ranged into following groupings – too small to assess; 25-30%, 45-50%, 100%+
- Activity levels: generally reported as increased, although limited quantitative data. Forecasts of 5-10% increase in development activity.

Residential Sector

- Capital value: impacts ranged into the following groupings – minimal; 3.8%-10%; 15%-25%
- Rental values: limited evidence, but indications of 15%+
- Activity levels: limited quantitative data.

Table A1: Summary of Transport Improvement and Property Value Impacts

Case	Impact distance/assessment focus	Impact on	Impact	Source
London Jubilee Line Extension (JLE)	Set radii from the stations – 1000m and 3000m	Residential	Capital values - positive	Chesterton (2000)
		Commercial	Occupancy levels from estate agents, developers and investors perceptions - positive	
London JLE	Set radii from the stations – 1000m. Note that impact greater where rail infrastructure was poor – 25% increases in 7 out of 10 stations.	Residential	Capital values - positive, but variable. Highest for maisonettes and flats	Chesterton (2002)
		Commercial	Occupancy levels from estate agents, developers and investors perceptions – positive	
London JLE	Note that sites close to stations more attractive to commercial and mixed use developments, and those further from stations more attractive for residential developments	Residential	Development applications – variable impact by accessibility, potential and development history – positive, but in limited areas	Pharoah (2002)
		Commercial	Sites close to stations sought for mixed use and commercial developments	
Review Paper	Multi sector – commercial and residential developments at different distances from stops	Residential and commercial property values	Intra urban and regional, capturing agglomeration (economic effects) and network effects (transport effects)	Wrigley and Wyatt (2001)
London Crossrail	Assumed impact area set at 1km from the stations	Commercial	Additional floor space of 10.87 million sq metres by 2025	Hillier Parker (2002)
		Residential	54,804 new dwellings in study area by 2025	
Croydon Tramlink	Assumed impact area set at 1km from the tram stops	Residential property values	Some localised impacts	ARW et al. (2003)
Sheffield Supertram	Assumed impact area set at 1km along either side of line	Residential property values	House prices reduced with anticipation of construction of tram lines, but negative impact disappeared after opening	Hennebury (1998)
Sheffield Supertram	Supertram corridor	Non residential property values	Unable to identify any discrete Supertram influence.	Dabinett (1998:178)
		House prices	Influence so small that cannot be separately distinguished	Dabinett (1998:179)
Manchester Metrolink	Metrolink corridor	House prices	Influence so small that cannot be separately distinguished	Dabinett (1998:179)
Toronto	Proximity to Metro	Tax assessment values	+45% overall; +107% around stations, compared with +25% elsewhere	Hack (2002)
		Commercial office space rents	Adjacent, +30% 500m, +10% over city average	
		Residential price premium	'close' to metro +20% (max)	
		Residential house prices and rents	+	
Boston	Community with a commuter rail station	Single-family residential property values	Positive +6.7% above trend	APTA (2002) and Armstrong (1994)
New Jersey	Census tracts served by PATCO rail	Home price	+10% above median	Voith (1991)
New Jersey	Access to SEPTA rail	Single family home price	+7.5%-8% above median	
Pennsylvania	Census tracts served by SEPTA rail	Home price	+3.8% above median	

Case	Impact distance/assessment focus	Impact on	Impact	Source
Washington, DC & Atlanta	System-wide ridership	Average office rents	Positive	APTA (2002) and Cervero (1994)
	Joint development near rail station	Annual office rents	Positive + 3/grsqft	
		Office occupancy rate	Positive	
		Share of regional growth	Positive	
Dallas	Proximity to DART (LRT) station	Property values	Positive +25%	APTA (2002) and Weinstein & Clower (1999)
		Class A office	+	
		Class C office	+	
		Strip retail	+	
		Class A occupancy	80/s ft 1994 to 88.5/sqft 1998(+11% above base)	
		Class A rent	15.6 to 23/sqft (+47% above base)	
		Strip retail occupancy	+ 49.5%	
		Strip retail rent	+ 64.8%	
Chicago	Proximity to transit (MTA/Metra stations)	Value of single family homes	Positive	APTA (2002) and Gruen & Associates (1997)
		Apartment rent value	Positive	
		Apartment occupancy	Positive	
San Francisco Bay Area	BART	Value of single family homes	Positive 3200 to 3700 depreciation per mile distance from BART station	APTA (2002) and Sedway Group (1999)
		Apartment rental	Positive +15%to 26%	
		Land price for office properties	Positive 74/sqft within mile 30/sqft over mile	
Santa Clara, California	Walking distance from LRT	Commercial land values	Positive + 4/sqft (+23% above base)	APTA (2002) and Cervero & Duncan (2001/2a and b)
	mile from CalTrain station	Commercial land values	+ 25/sqft (+120%) above mean	
Los Angeles	mile corridor from Metro	Mean sales price of commercial space	+ 31 per sqft	Fejerang et al (1994)

Source: GVA et al (2004) Developing a Methodology to Capture Land Value Uplift Around Transport Facilities

Spatial Impacts

Table A1 identified some of the geographies of impact used or identified in various studies. However, there are other issues to consider in terms of spatial impacts from transport infrastructure. Thus, the overall spatial impacts of public transport investment will reflect the overall interplay of individual lines and stations, their overlapping or competing catchments and the layout of the city as a whole.

As an example of this, Ingram (1998) reports results of experience with new subways in Montreal, San Francisco, Toronto and Washington, D.C. From this it was considered that there was:

- Very modest effects on metropolitan development patterns;
- Some evidence of development around stations (Toronto and Washington);
- Some evidence of CBD development in Montreal and San Francisco.

Much depended upon how the new station links or enhanced accessibility to the whole system. This is pertinent for the Crossrail, as the route has a wide range of existing public transport provision in most locations, although the leap forward in accessibility, quality and enhanced interchange is an important additional factor.

Cervero (1998) observes that radial rail systems can strengthen downtown cores. Banister and Berechman (2000:280-282) observe that BART has had a very modest impact in a highly localised and rather uneven pattern, with central San Francisco benefiting and maintaining its dominant position. The Tyne and Wear Metro was found to have a localised effect on the housing market "in a few inner urban areas, where the attractiveness of housing increased and some redevelopment took place" (Walmsley and Perrett, 1992:31).

Boarnet and Crane (2001:34) note that the more expensive the land at a given location, "the more likely a given site will be developed densely as builders trade off construction cost against unit land costs." Hence densities are expected to decline with distance from central locations.

Walmsley and Perrett (1992:127) suggest that: "Rapid transit tends to accentuate existing trends. If an area is undergoing an expansion or boom period, rapid transit can accentuate the expansion. If an area is declining, rapid transit may help to stabilise the area but will not reverse the decline. In one or two examples, the symbiotic process has worked in reverse: in Lille the Metro enabled people in the declining areas to go somewhere else to shop or work ".

Wegener (1995) offers the explanation that the Land Use-Transport (LU-T) feedback cycle operates under conditions of scarce accessibility, but less so with ubiquitous accessibility. Banister and Berechman (2000:285) also suggest that "One possible explanation for the small and variable impact of urban rail investment is the condition of ubiquitous accessibility found in many urban areas Any additional infrastructure, particularly where the network is already well developed, makes very little impact on the overall accessibility."

Cervero and Wu (1998) conclude: "the results of our research are also consistent with the proposition, that factors other than accessibility increasingly shape metropolitan locational decisions", such as planning policy. Meanwhile, Bollinger et al. (1998) claim "Our results provide the first hard evidence that convenience for face-to-face meetings is an important determinant of office rent. In fact, we find that this factor is among the most important predictors of locational differences in office rent."

This suggests that public transport investment can support growth in property value or rent where it boosts locations with good opportunity for face to face meetings and general social interaction. This is typically through the creation of high density urban nodes with a concentration of facilities and services, such as those found in the major rail terminals and at transport accessible locations (e.g. transport development areas).

Overall, then, it can be said that an improvement in accessibility is the logical foundation for, and necessary prerequisite of, increases in property value, but is not on its own sufficient. Its impacts depend on both the scale of the investment and on the contribution of the new link to the network.

Scale of Change

Hall and Marshall (2000) summarise a series of studies that conclude that transport investment is often necessary but not sufficient to generate development (Tolley and Turton, 1995; Walmsley and Perrett, 1992:127; Dabinett 1998:172, 185). Where this 'necessity' would bite would be in the following cases:

- Areas lacking transport infrastructure generally.
- In 'advanced' transport networks, where there is a significant step change in accessibility,

such as a river estuary crossing (or channel tunnel) where previously separate economic systems merge.

- Also in 'advanced' transport network contexts, where there are 'bottlenecks'.

In other words, in already advanced transport situations, it would take a major step change (b or c above) to see significant effects. Otherwise, the effects would be marginal.

The above points echoes comments by Ryan (1999) noting that it is where time savings are made that increases in property values are likely to accrue. In other words, if the change in accessibility is of a sufficiently large change, (e.g. new metro in a public transport-poor metropolitan area) then measurable time savings will be made (by at least some sectors of the population who would use the system). Alternatively, if a public transport investment was made that hardly changed travel times to any significant degree (whether because accessibility was already good in the direction served, etc.), one would not expect to see a large impact.

Economic and Planning Context

The above evidence indicates that a new metro system needs to increase accessibility in order to create rises in property value. However, enhancing the attractiveness of a location, by increasing the amenity (perhaps visibility, identity and prestige of a locality with its new metro station) and/or avoiding reducing local amenity, may also lead to value increases. The combination of these factors suggests a potential for property values to increase and new development to be realised. However, these may be necessary but not sufficient factors.

Thus, Hall and Marshall (2000) noted two particularly important contextual items regarding transport investment on development in general as (1) General economic climate and (2) Regulatory context, e.g. planning control. In other words, generally speaking, it has been found that infrastructure investment has led to land use development in buoyant economic contexts, and that public transport-led development in particular has tended to flourish where planning policy favoured public transport-oriented development and/or restricted car use/car-oriented development.

Cervero (1998) drawing lessons from Toronto, San Francisco and elsewhere, suggests that transit redistributes rather than creates growth; and that a prerequisite is a healthy regional economy. He also notes that land-use impacts are greatest when transit investments occur just prior to an upswing in regional growth. This may be of particular relevance to Crossrail given the current position in the economic cycle and the expectations for economic recovery during the construction phase and by the date of the line's opening.

Banister and Berechman (2000:280-282), reviewing the impacts of BART, suggest that development impacts are not uniform and only occur where other economic conditions already favour development. They draw similar conclusions regarding a high speed rail scheme which requires the presence of a buoyant local economy that can take advantage of the new accessibility opportunities.

Walmsley and Perrett (1992) found a consensus of opinion on the effects of rapid transit on urban development: that development can only be successfully channelled if there is demand for property (1992:127). Walmsley and Perrett (1992:130) also report various examples where areas in economic decline are not boosted by a new transit system. In Tyne and Wear, demand for industrial property in the early 1980s was low, and the Metro had no significant effect on location decisions. This is echoed in the case of the light rail system in St Louis, where Hack (2002) notes that "the real estate market in areas along the rapid transit line is moribund and the private sector has been reluctant to invest in station area development until the Metrolink proves successful."

Various studies point to the importance of supportive public policies being in place to encourage development demand at public transport stations. Contextual factors found to be relevant include zoning and taxation policies; also, the availability of land (appropriately assembled) in the first place (see for example Boarnet and Crane, 2001:166).

Dabinett (1998:173) makes reference to studies, which showed that "rail transit can have a strong influence on the location, intensity and timing of new development, especially when it is supported by positive development incentives and coordinated land use/transit planning." The importance of planning context is made by Pill (1988) – citing zoning bonuses for developments around Toronto subway stations – and Greenberg (1988).

Other evidence from the literature suggests the following broad points need to be borne in mind in interpreting findings:

- Cities that do not have a strong downtown, and/or having dispersed trip patterns, may not be able to take full advantage of the high capacity potential of metro systems;
- Cities with a lack of a public transport culture (where systems are introduced in cities without a tradition of high public transport use) may lead to less impact on travel and perceived value of accessibility improvements;
- Similarly, socio-economic factors may mitigate against the full possible impact of transit investment on property value, where property owning and transit-riding sections of the population do not coincide;
- The availability of relatively cheap car travel and good road infrastructure may also affect the relative impact of transit investment, compared with more costly/congested cities.

Table A2 provides a summary of the impacts of a selection of metro and rail-based systems, relating their impacts to four key contextual factors: accessibility, planning policy regime, market (economic climate) and locale/ design attributes. For example, with respect to the JLE, the Chesterton study concluded that the planning environment and accessibility were positive factors, whilst the housing market situation and local factors were more variable along the JLE corridor. Nevertheless, the impacts on both the residential and commercial markets were positive.

Table A2: Summary of Empirical Contextual Evidence

Case			Contextual Factors				Impact	
Source	Case	Mode	Access.	Plan	Market	Locale/ Design	Sector	Type
Chesterton (2000)	JLE	Metro	Positive	Positive	Variable	Variable	Residential. Commercial	Positive
Chesterton (2002)	JLE	Metro	Positive	Positive	Variable		Residential. Commercial	Positive
Pharoah (2002)	JLE	Metro	Positive	Positive	Positive	Positive	Residential. Commercial	Positive
Hillier Parker (2002)	Crossrail	Rail	Positive	Positive	Positive	Positive	Residential. Commercial	Positive
TRL (1993)	Tyne & Wear	Metro	Positive	Negative	Negative		Residential.	Positive
Hennebury (1998)	Sheffield Supertram	LRT	Positive				Residential.	Negative
Damm et al (1980)	Washington	Metro	Positive				Commercial	
Retail	Negative							
Landis et al (1994)	BART	Metro	Positive			Negative		None
Landis et al (1995)	BART	Metro	Positive		Negative			None
Nelson 1999)	Atlanta	Metro	Positive	Positive			Commercial	Positive
Nelson (1999)	Atlanta	Metro	Positive			Positive /Negative	Residential.	Positive /Negative
Hack (2002)	St Louis	LRT	Positive		Negative		Real estate	None

Source: GVA et al (2004) Developing a Methodology to Capture Land Value Uplift Around Transport Facilities.
Note: The blank cells indicate that no comment was made on these factors in the study cited. The interpretation of the positive or negative effects of planning policies is a subjective one, and relates to whether planning (and other contextual factors) policies are supportive of change.

Conclusions

The review of literature revealed a number of other issues of relevance. These are summarised below.

- Much of the analytical and empirical research comes from the USA and Canada, and this has mainly concentrated on the commercial property market. The quality and availability of data from North America is good and allows the use of more sophisticated methods, including regression analysis and hedonic pricing to draw conclusions, and hence reasonably robust findings emerge.
- The evidence from the UK and Europe is more varied, but does include individual case studies and comprehensive reviews. There seem to be less time series or repeated cross sectional data available for analysis. The use of more simple indicators such as transactional price analysis, growth assessment and projected rateable values has been explored.
- Until recently, UK and European research has tended to concentrate on the transport impacts in terms of more traditional changes in demand patterns and the switching of travel to the new mode. There has been less interest in the property market effects. But this has now changed, with much of the recent work from key researchers and the property market sector itself being concentrated on the land and property value uplift effects of transport. This work has concentrated on the residential sector, where there is reasonable quality data from the Land Registry, the Valuation Office and other agencies.
- From the extensive literature cited, it appears that the expected effect on both the residential and commercial property markets is positive, but the range of impacts is very variable – from marginal to over 100% in the commercial sector from the North American evidence. In the UK the impact is seen as being positive, but there has been less emphasis put on exact amounts. However, some of this uplift may be due to the optimism of the markets rather than actual effects.
- The treatment of time is important in all studies. This is because changes are likely in land and property values in advance of the completion of the transport investment as developers and house builders will invest in the expectation of improvements in the transport infrastructure. Effects might also be expected immediately after the transport investment is opened, and further in the future as the full benefits are recognised.
- Catchment areas are also important. The impact area for residential developments is wider than those for commercial developments. Depending on the investment, residential impacts could extend to 1000m according to previous studies, while those for commercial developments are likely to be concentrated in a 500m radius.
- Although the analysis has produced variable results, there is also the question of attribution of impacts. It seems that the contextual situation is important and should be seen as an input to any analysis. Similar transport investments will have different impacts in locations where there is a vibrant local economy and where the economic conditions are less advantageous. The key question then becomes, what other actions are needed in an area apart from the transport investment to make a measurable impact in terms of value uplift

In terms of the Crossrail study a number of potential implications arise from the literature review. These are summarised below.

- In terms of catchment area definitions, the use of 500m, 1km and wider reference zones of influence appears reasonable. This has been adopted to assess impacts associated with Crossrail.
- The time coverage for impact assessment purposes tends to be a matter of local circumstances. For the purposes of Crossrail it has been assumed that the impact assessment period would cover the period from the announcement of the construction, through the construction phase and the line's operation from 2018.
- An indication of the scale and form of impact that may potentially arise from Crossrail based upon literature evidence is required. This is in order to provide guidance as to the range of impacts that could be generated from the scheme.

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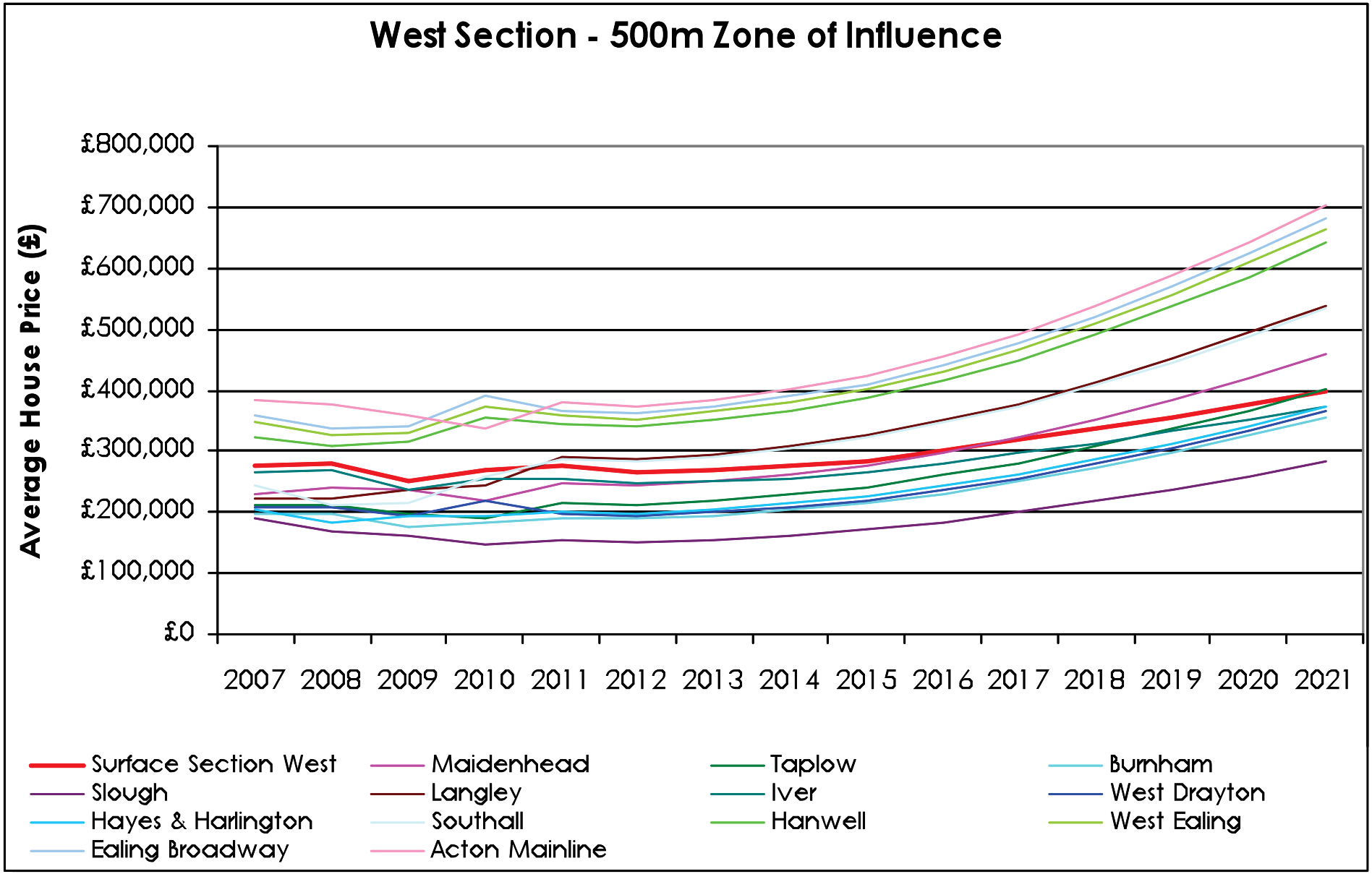
Appendix 2

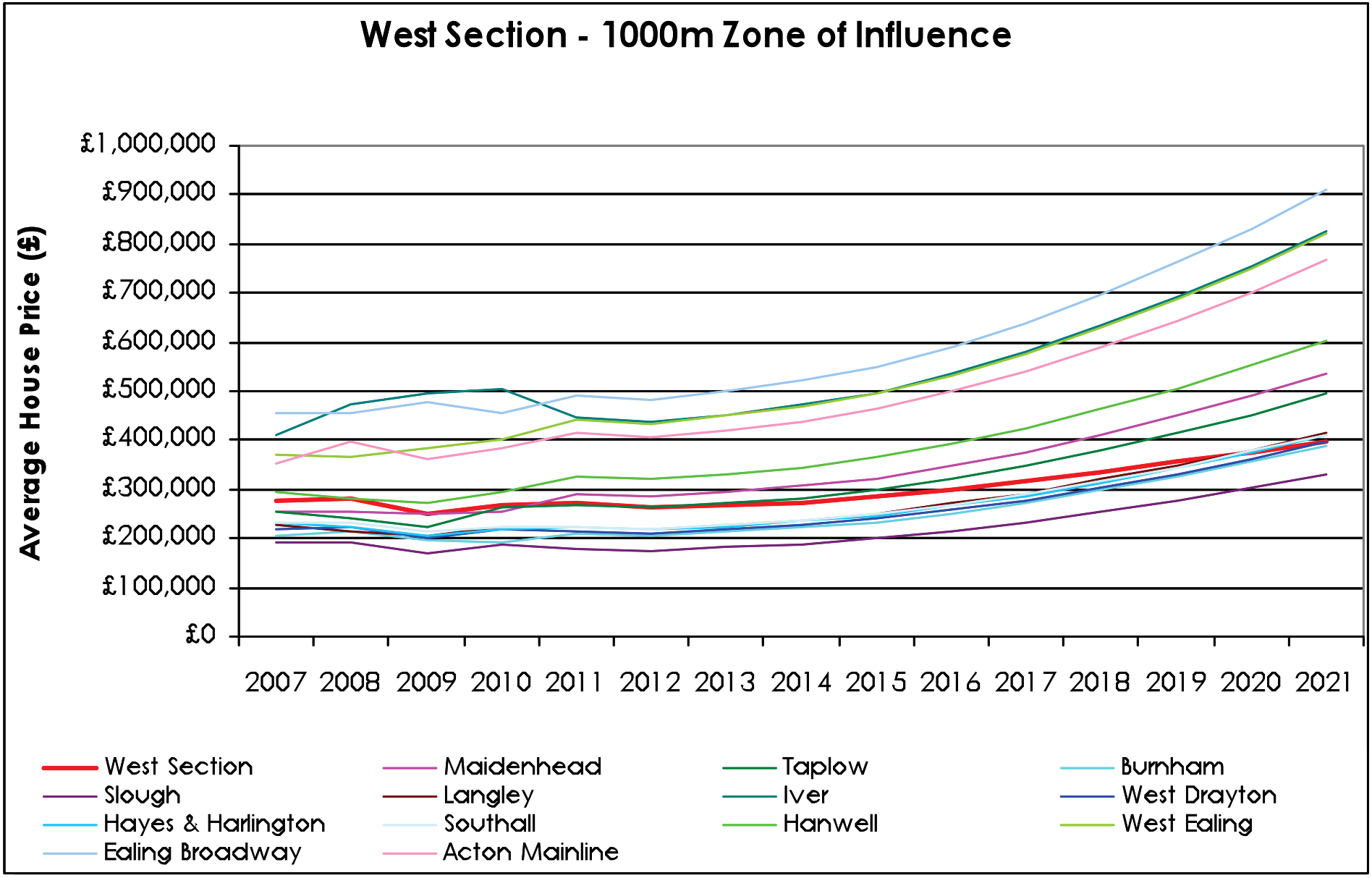
Crossrail Stations Defined Zones of Influence Map

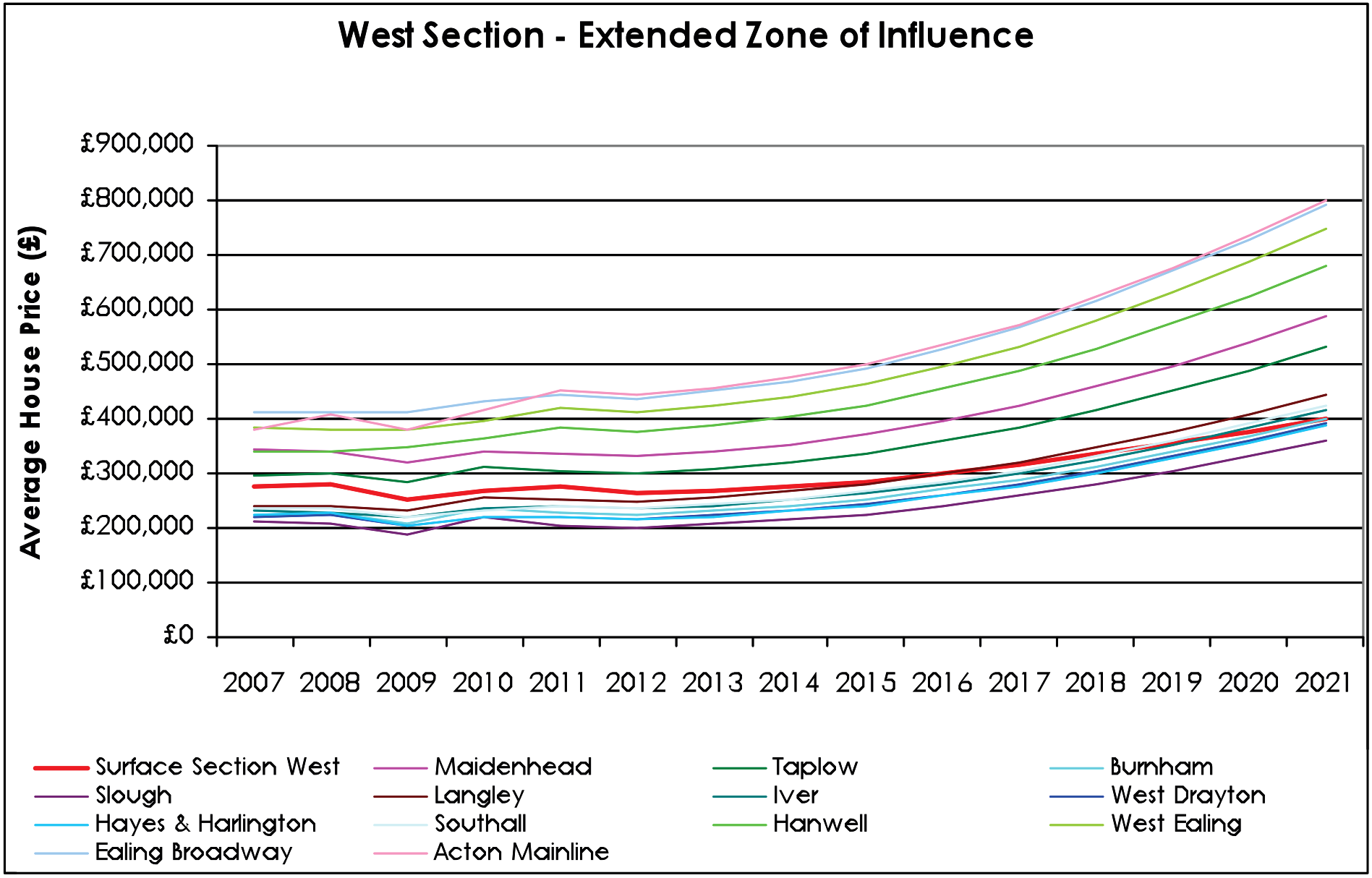
Crossrail Station
Crossrail Centre Line
Inner Zone of Influence
Outer Zone of Influence
Extended Zone of Influence

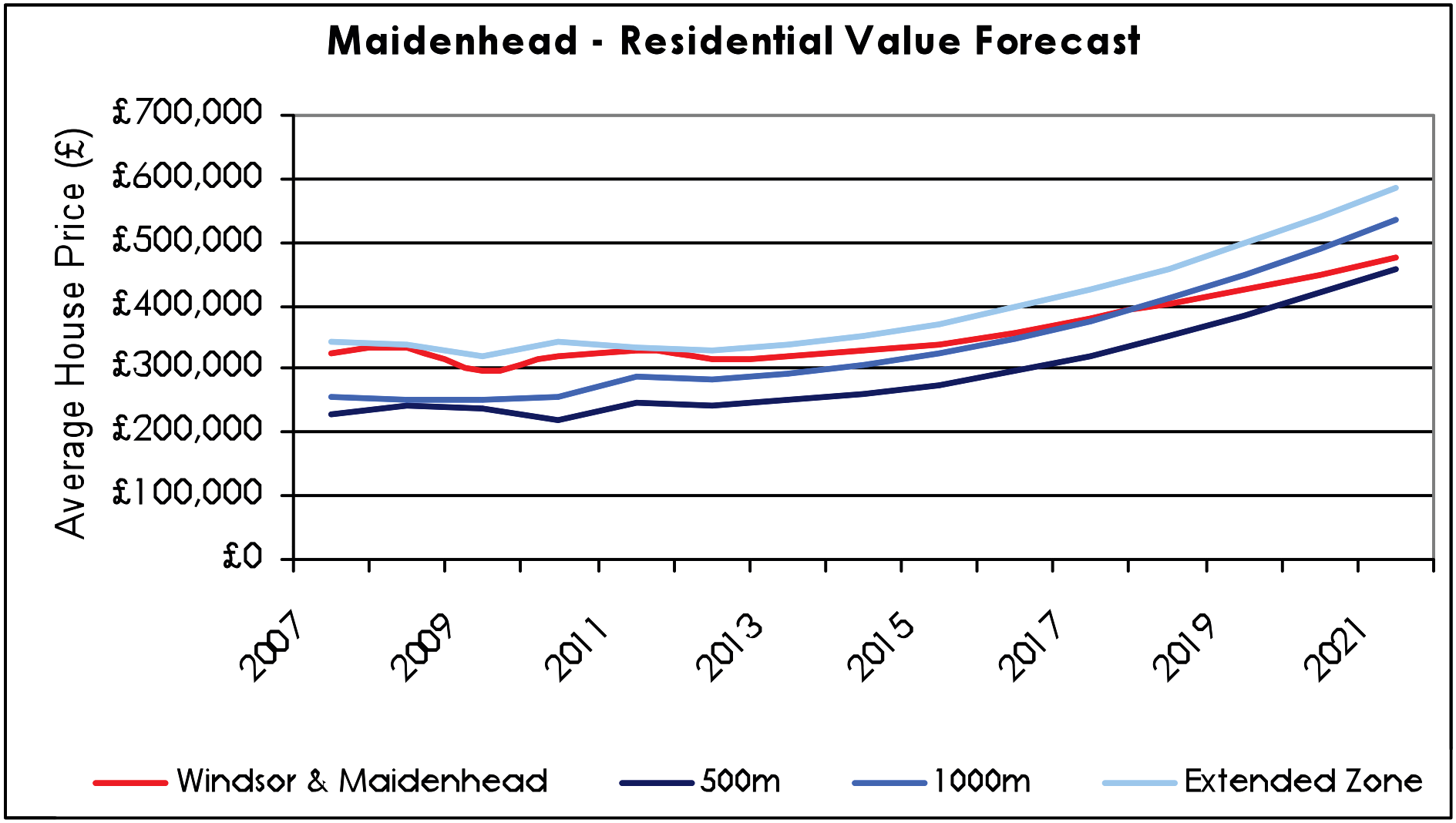
Appendix 3

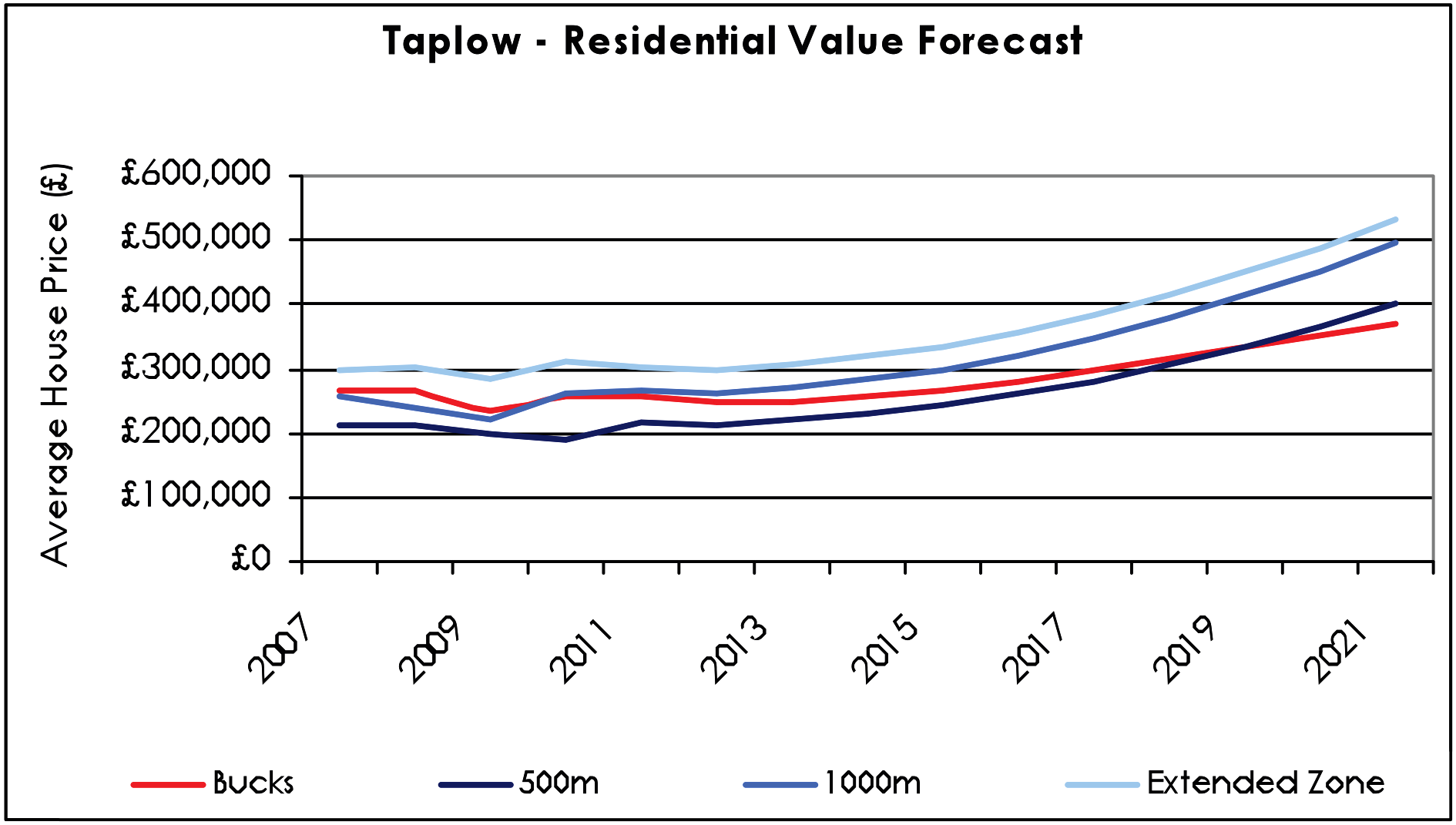
Residential Forecasts raphs

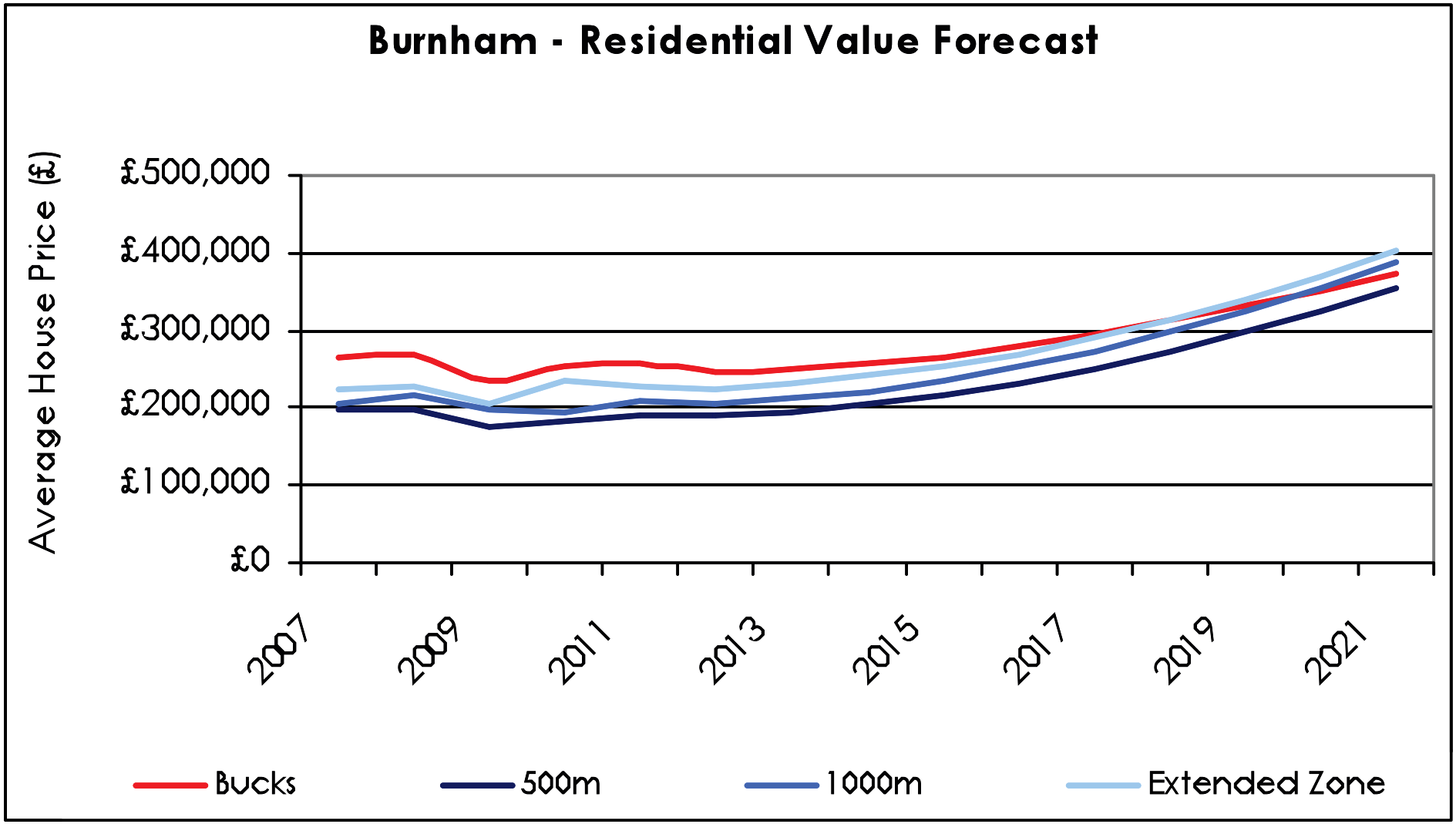

West Section - 500m Zone of Influence
Average House Price (£)
£800,000
£700,000
£600,000
£500,000
£400,000
£300,000
£200,000
£100,000
£0
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
Surface Section West
Maidenhead
Taplow
Burnham
Slough
Langley
Iver
West Drayton
Hayes & Harlington
Southall
Hanwell
West Ealing
Ealing Broadway
Acton Mainline

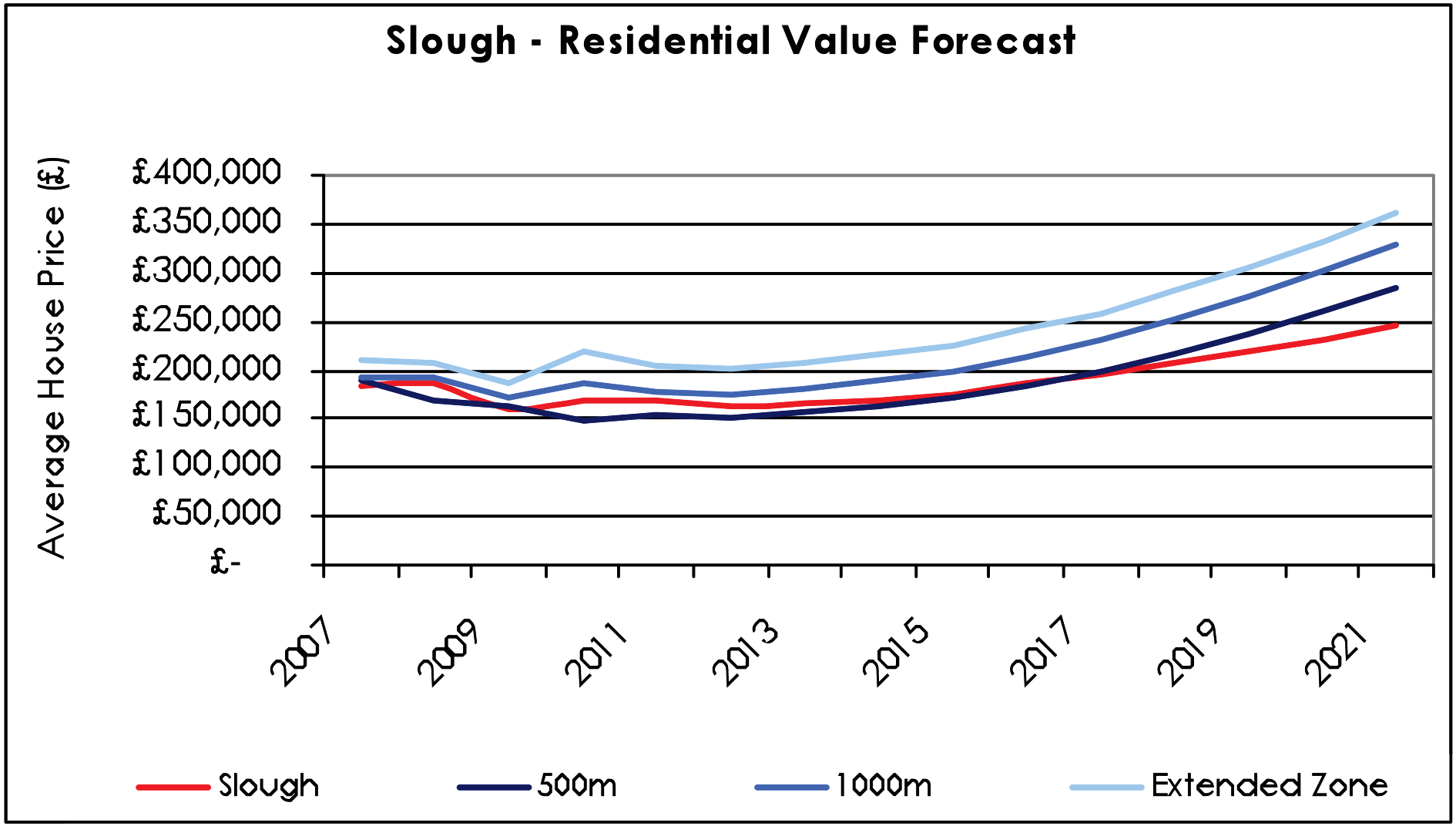

West Section - 1000m Zone of Influence
Average House Price (£)
£1,000,000
£900,000
£800,000
£700,000
£600,000
£500,000
£400,000
£300,000
£200,000
£100,000
£0
2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021
West Section
Maidenhead
Taplow
Burnham
Slough
Langley
Iver
West Drayton
Hayes & Harlington
Southall
Hanwell
West Ealing
Ealing Broadway
Acton Mainline

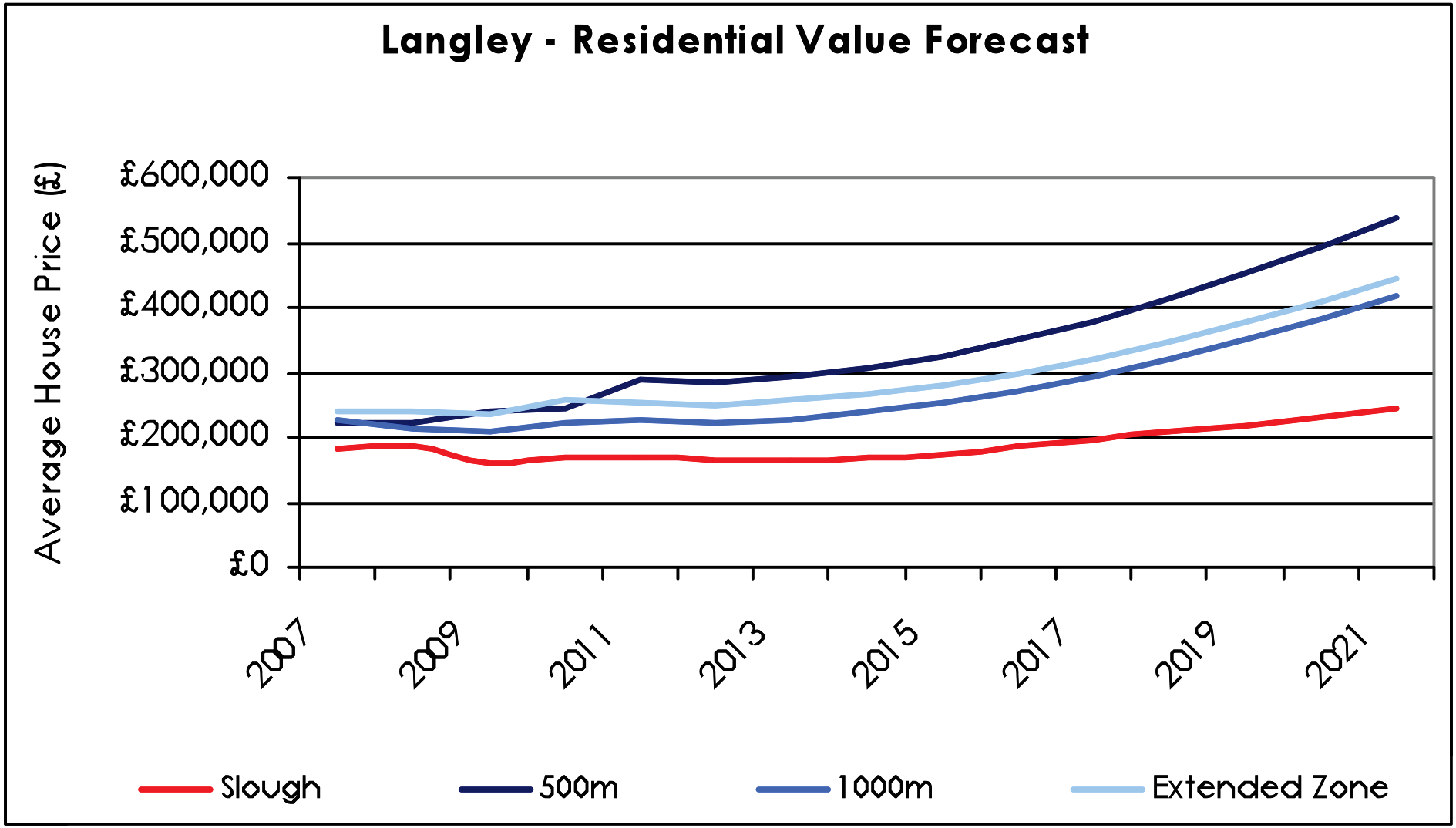

West Section - Extended Zone of Influence
Average House Price (£)
£900,000
£800,000
£700,000
£600,000
£500,000
£400,000
£300,000
£200,000
£100,000
£0
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
Surface Section West
Maidenhead
Taplow
Burnham
Slough
Langley
Iver
West Drayton
Hayes & Harlington
Southall
Hanwell
West Ealing
Ealing Broadway
Acton Mainline

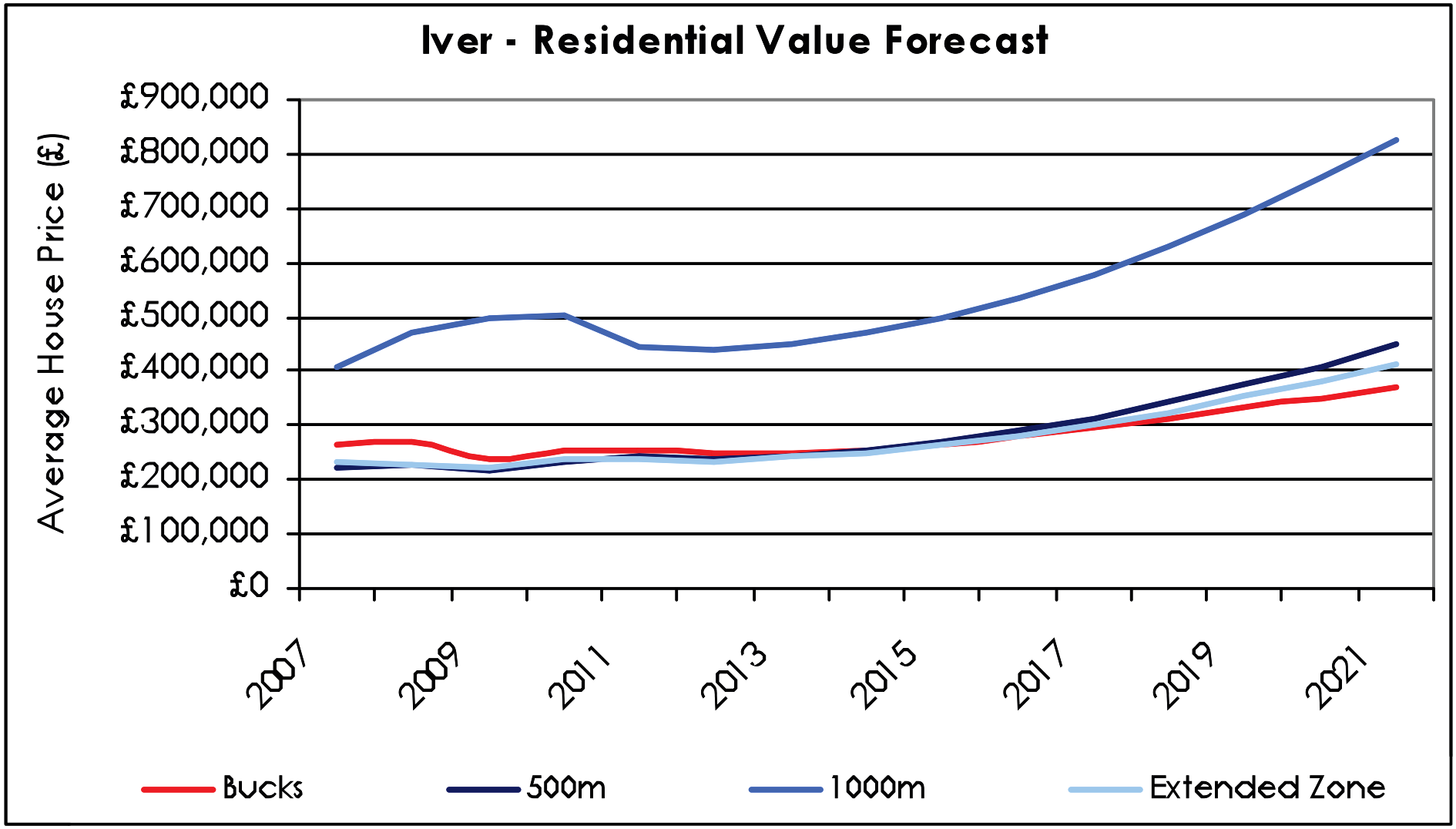

Maidenhead - Residential Value Forecast
Average House Price (£)
£700,000
£600,000
£500,000
£400,000
£300,000
£200,000
£100,000
£0
2007
2009
2011
2013
2015
2017
2019
2021
Windsor & Maidenhead
500m
1000m
Extended Zone

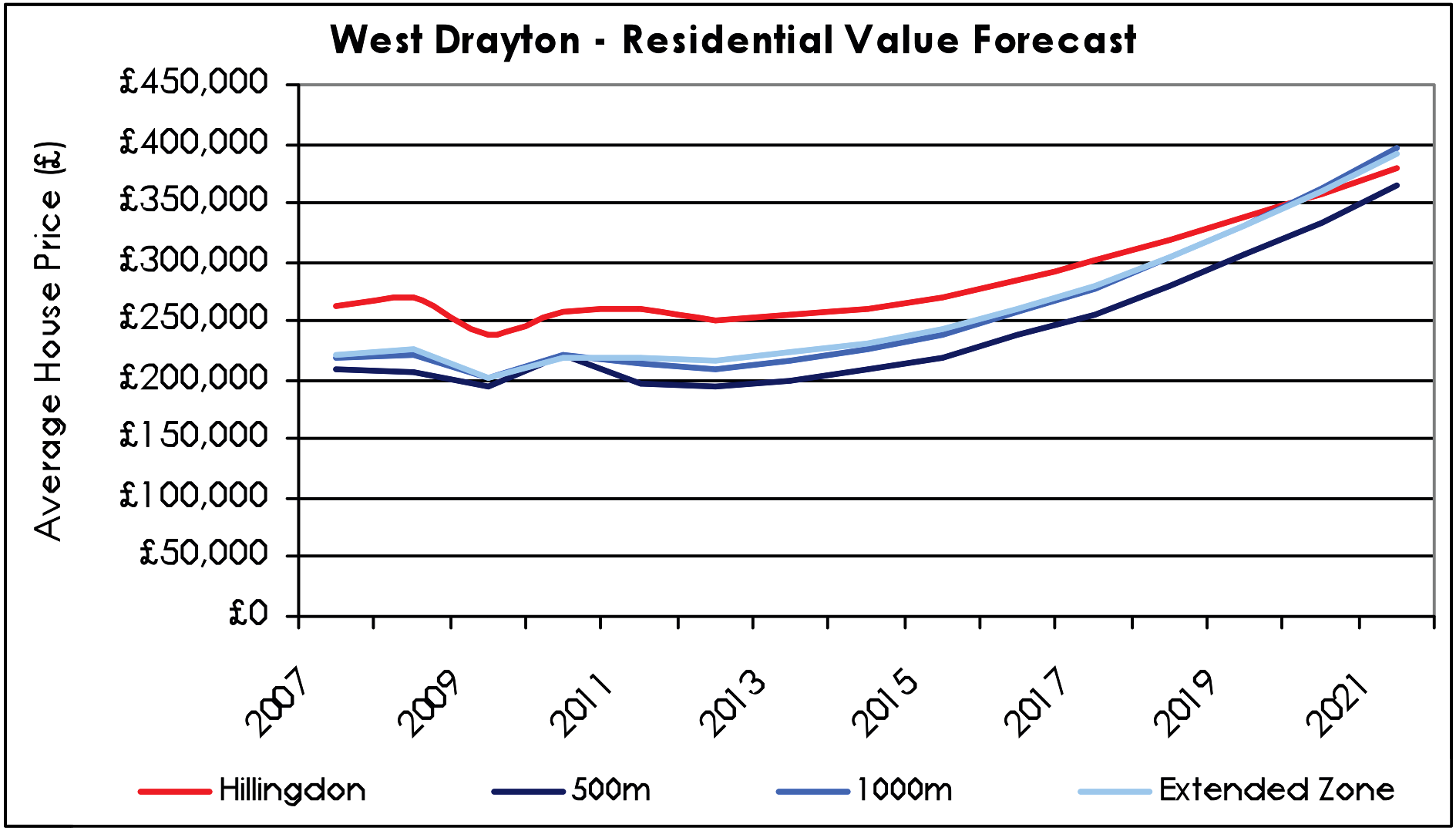

Taplow - Residential Value Forecast
Average House Price (£)
£600,000
£500,000
£400,000
£300,000
£200,000
£100,000
£0
2007
2009
2011
2013
2015
2017
2019
2021
Bucks
500m
1000m
Extended Zone

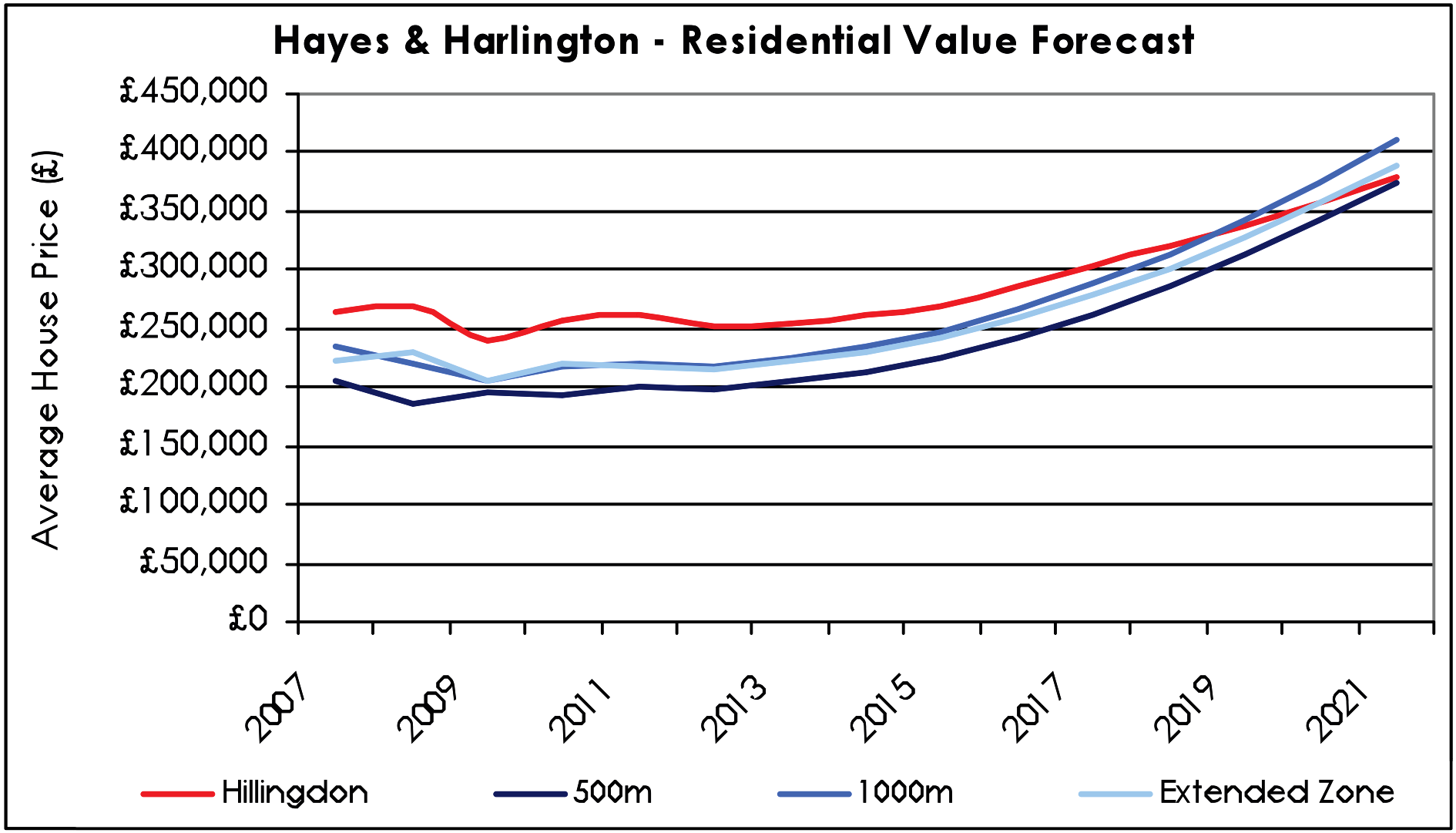

Burnham - Residential Value Forecast
Average House Price (£)
£500,000
£400,000
£300,000
£200,000
£100,000
£0
2007
2009
2011
2013
2015
2017
2019
2021
Bucks
500m
1000m
Extended Zone

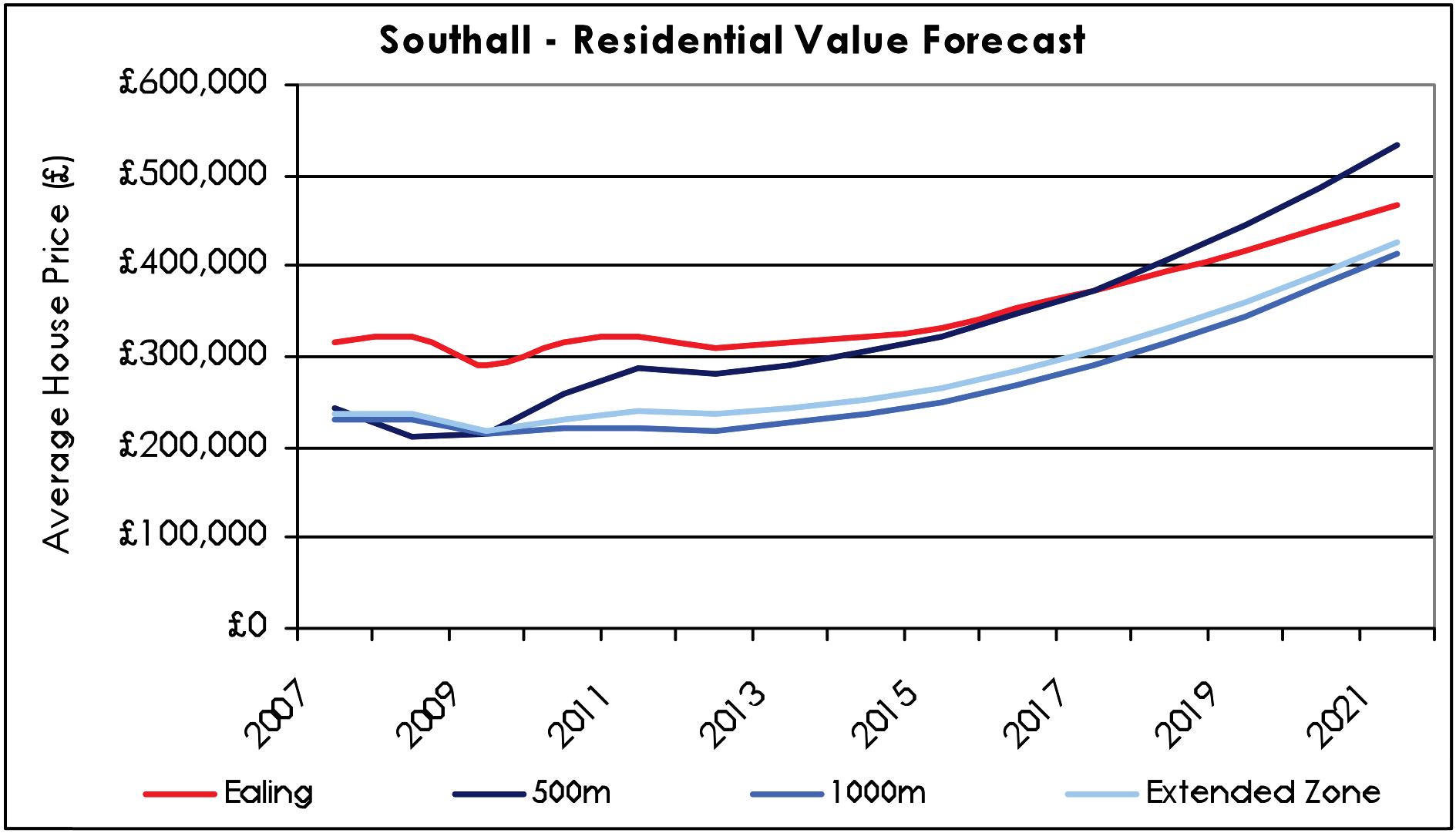

Slough - Residential Value Forecast
Average House Price (£)
£400,000
£350,000
£300,000
£250,000
£200,000
£150,000
£100,000
£50,000
£-
2007
2009
2011
2013
2015
2017
2019
2021
Slough
500m
1000m
Extended Zone


Langley - Residential Value Forecast
Average House Price (£)
£600,000
£500,000
£400,000
£300,000
£200,000
£100,000
£0
2007
2009
2011
2013
2015
2017
2019
2021
Slough
500m
1000m
Extended Zone


Iver - Residential Value Forecast
Average House Price (£)
£900,000
£800,000
£700,000
£600,000
£500,000
£400,000
£300,000
£200,000
£100,000
£0
2007
2009
2011
2013
2015
2017
2019
2021
Bucks
500m
1000m
Extended Zone


West Drayton - Residential Value Forecast
Average House Price (£)
£450,000
£400,000
£350,000
£300,000
£250,000
£200,000
£150,000
£100,000
£50,000
£0
2007
2009
2011
2013
2015
2017
2019
2021
Hillingdon
500m
1000m
Extended Zone


Hayes & Harlington - Residential Value Forecast
Average House Price (£)
£450,000
£400,000
£350,000
£300,000
£250,000
£200,000
£150,000
£100,000
£50,000
£0
2007
2009
2011
2013
2015
2017
2019
2021
Hillingdon
500m
1000m
Extended Zone


Southall - Residential Value Forecast
Average House Price (£)
£600,000
£500,000
£400,000
£300,000
£200,000
£100,000
£0
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2009
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2013
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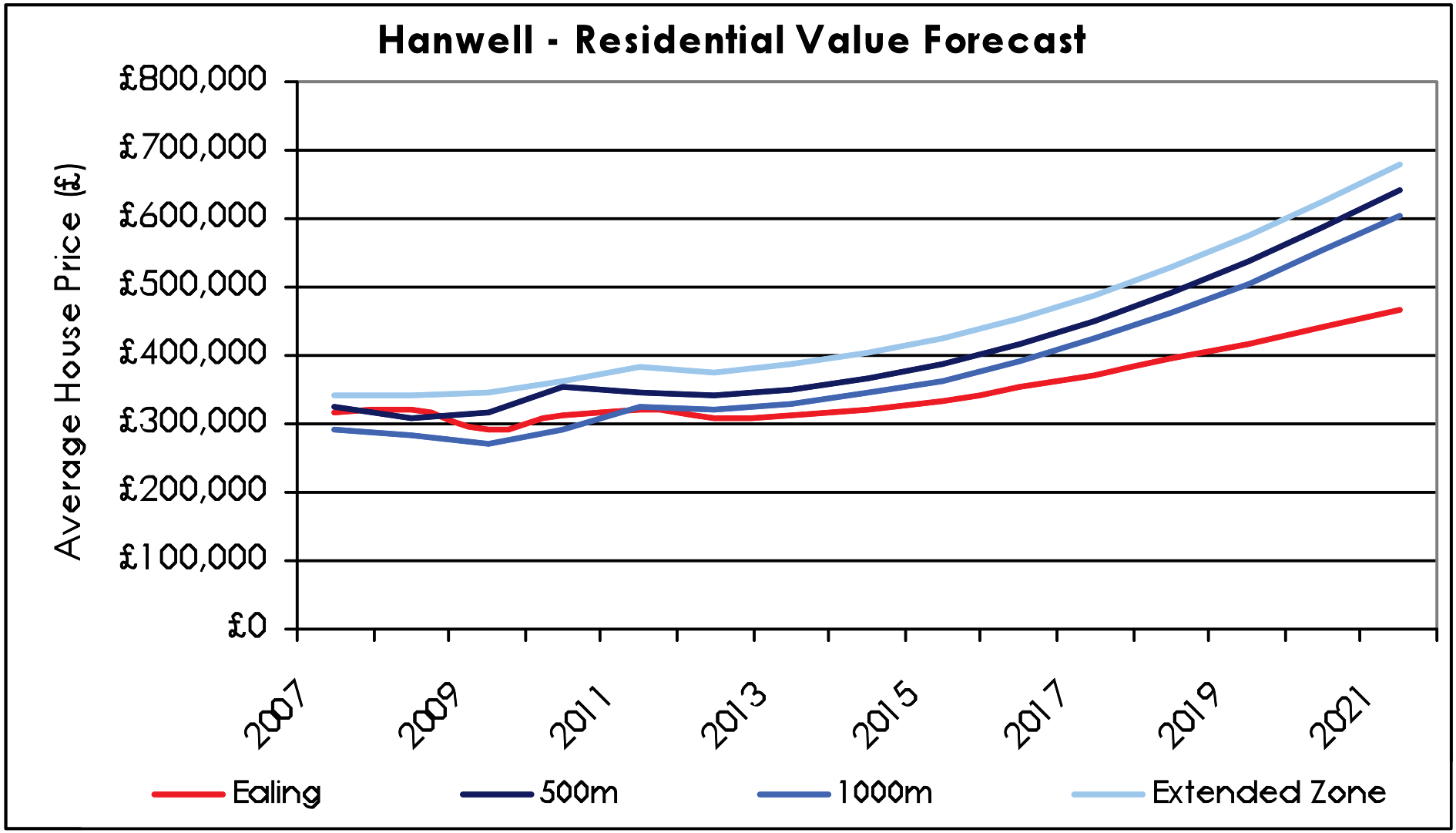
2019
2021
Ealing
500m
1000m
Extended Zone


Hanwell - Residential Value Forecast
Average House Price (£)
£800,000
£700,000
£600,000
£500,000
£400,000
£300,000
£200,000
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2009
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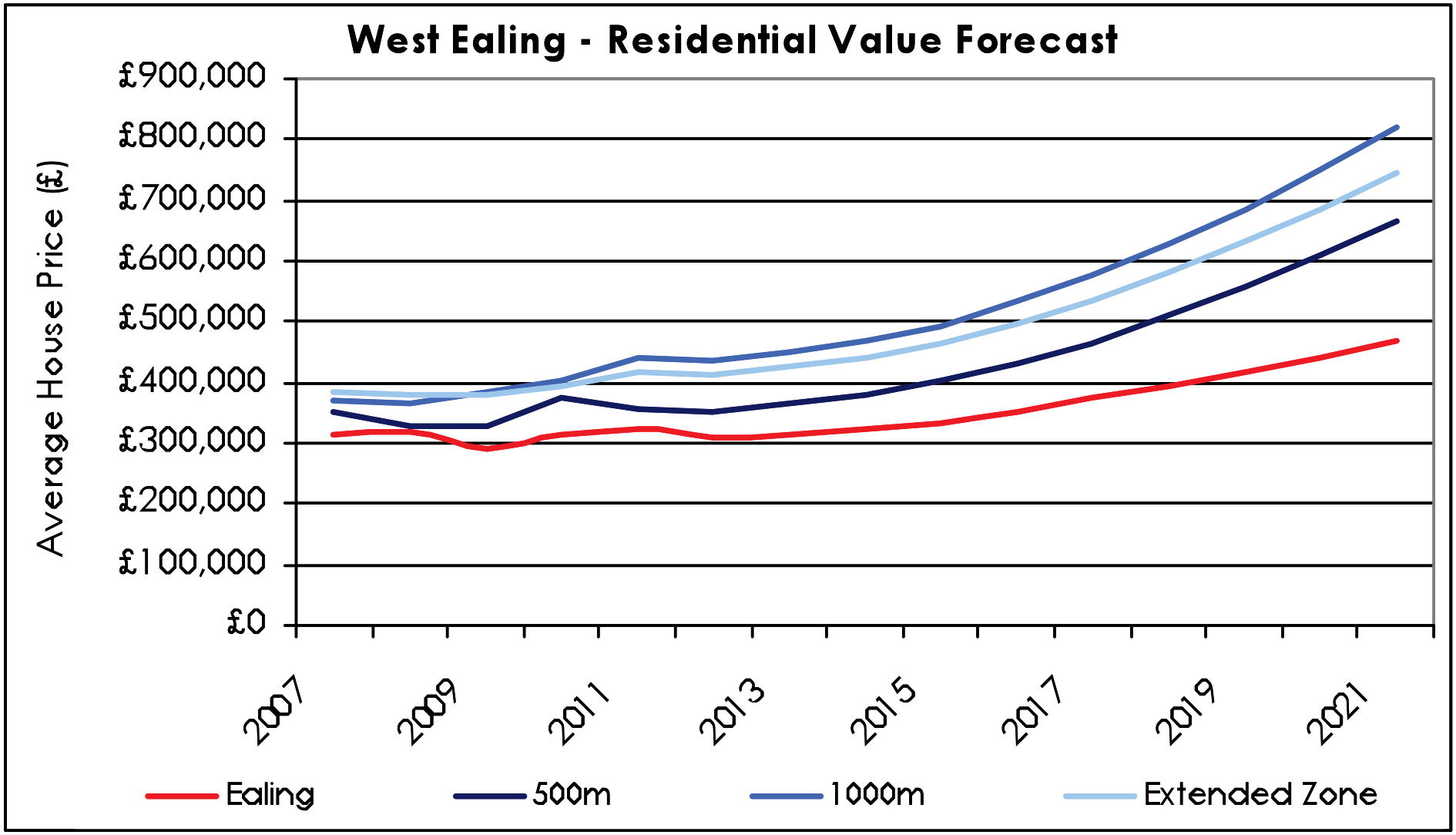
2017
2019
2021
Ealing
500m
1000m
Extended Zone


West Ealing - Residential Value Forecast
Average House Price (£)
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£700,000
£600,000
£500,000
£400,000
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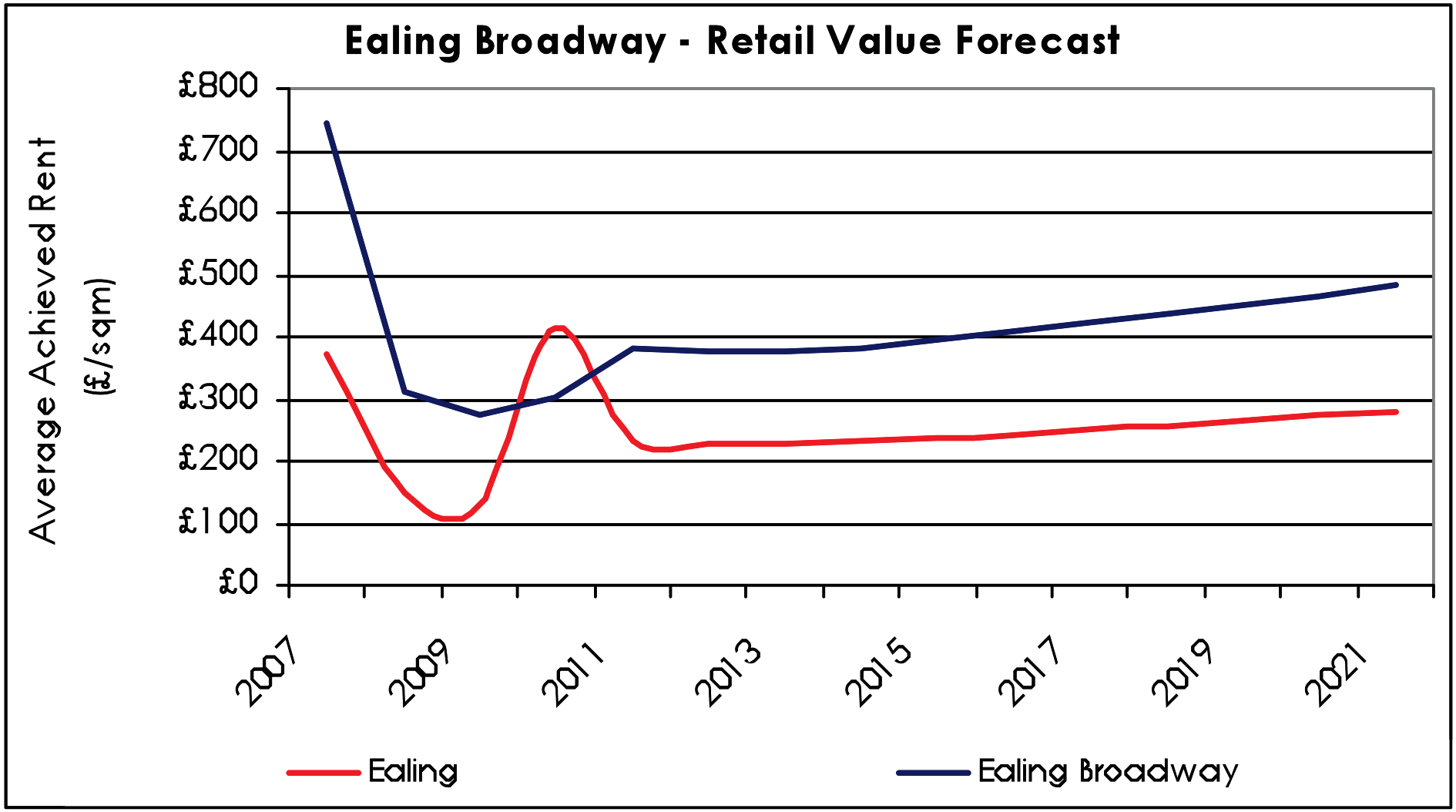
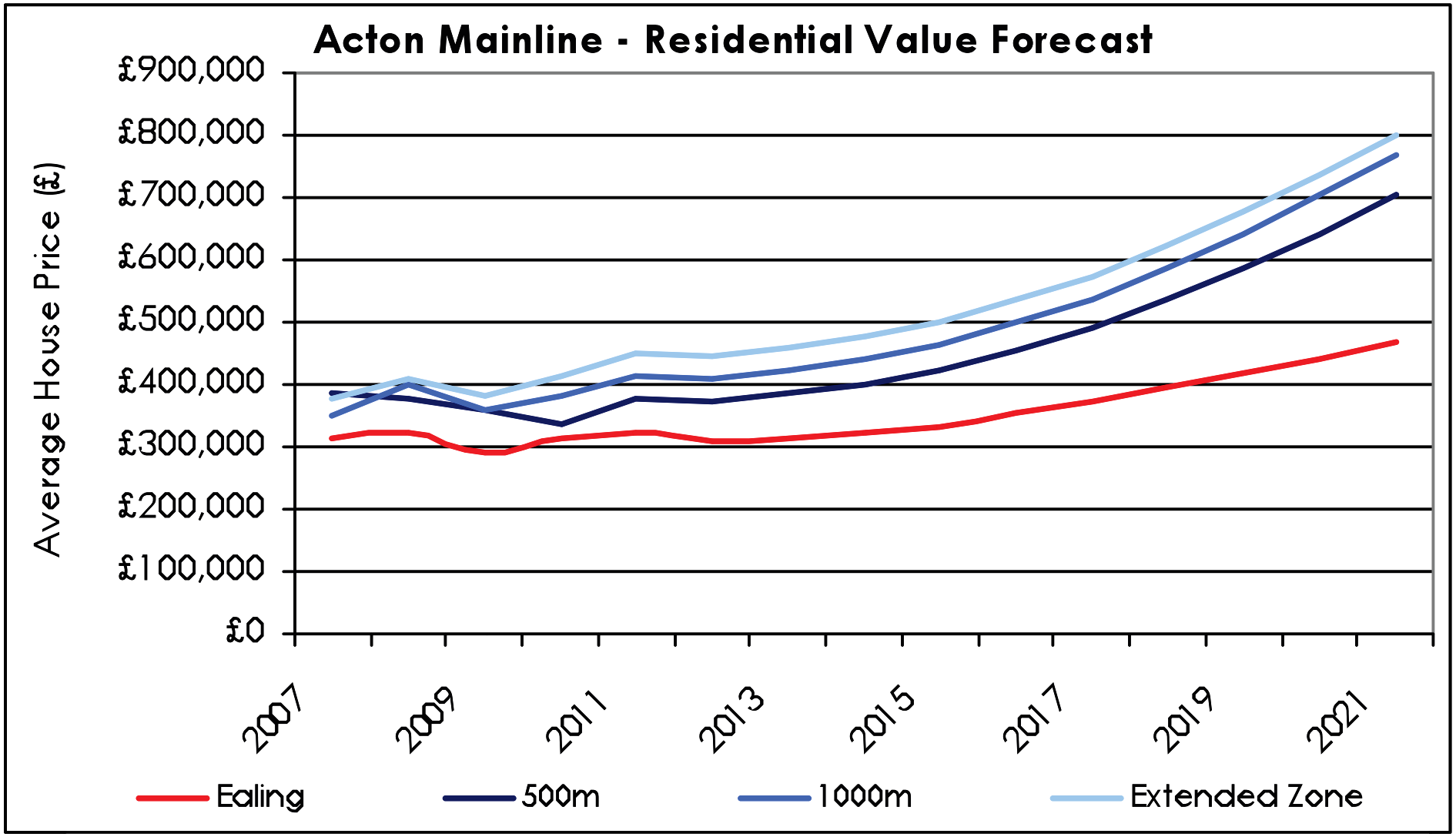
500m
1000m
Extended Zone


Ealing Broadway - Retail Value Forecast
Average Achieved Rent
(£/sqm)
£800
£700
£600
£500
£400
£300
£200
£100
£0
2007
2009
2011
2013
2015
2017
2019
2021
Ealing
Ealing Broadway


Acton Mainline - Residential Value Forecast
Average House Price (£)
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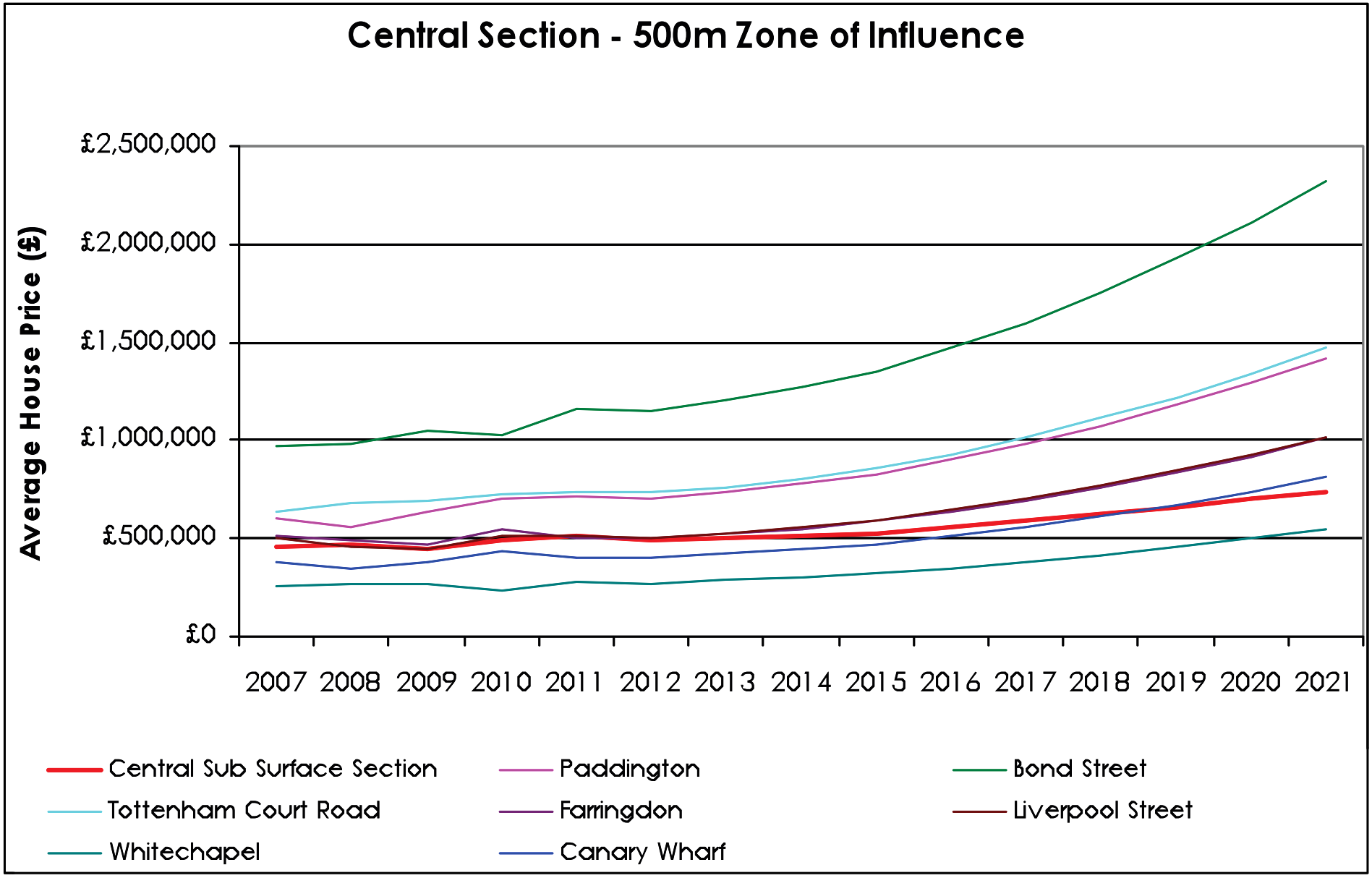
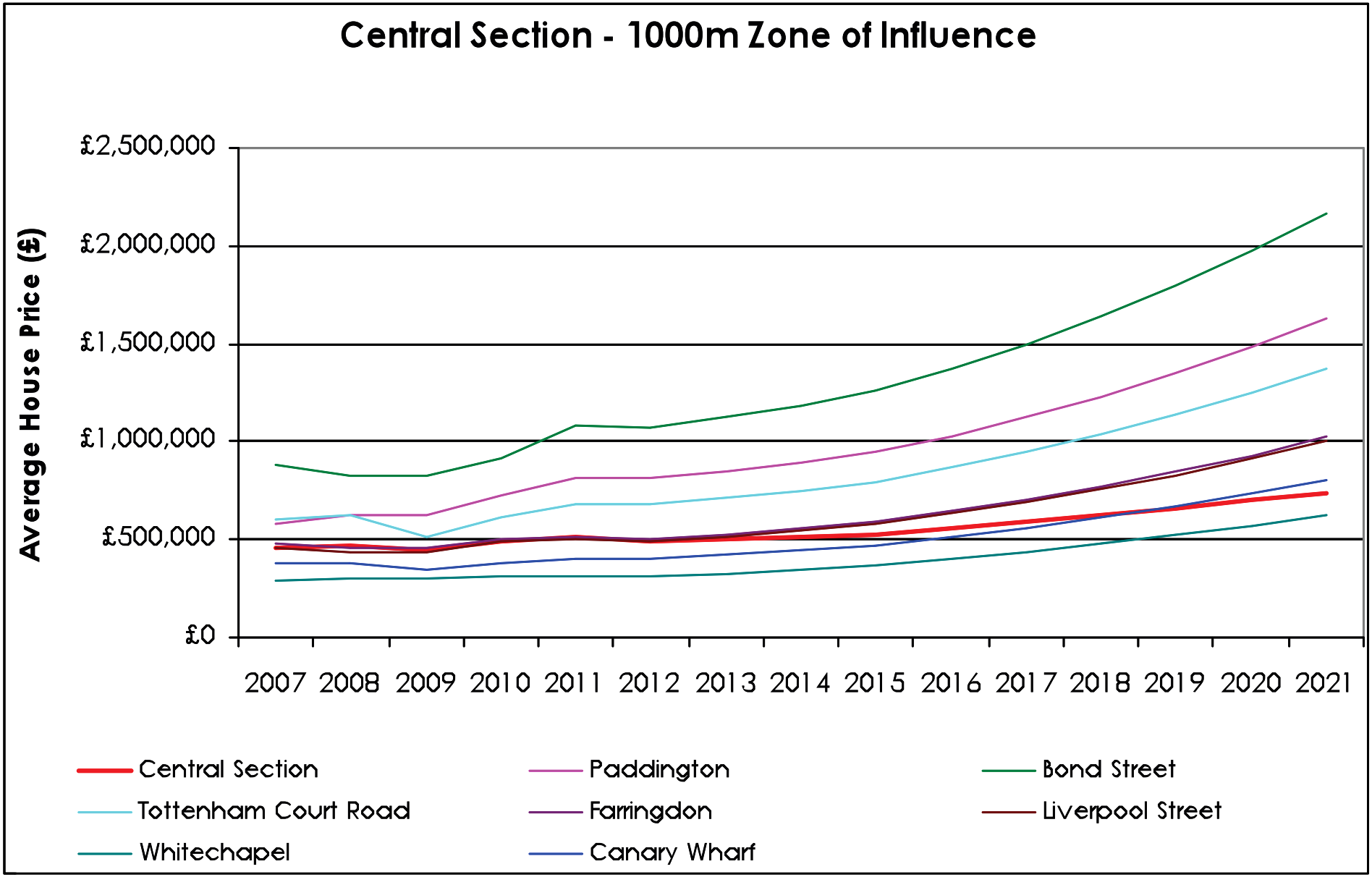
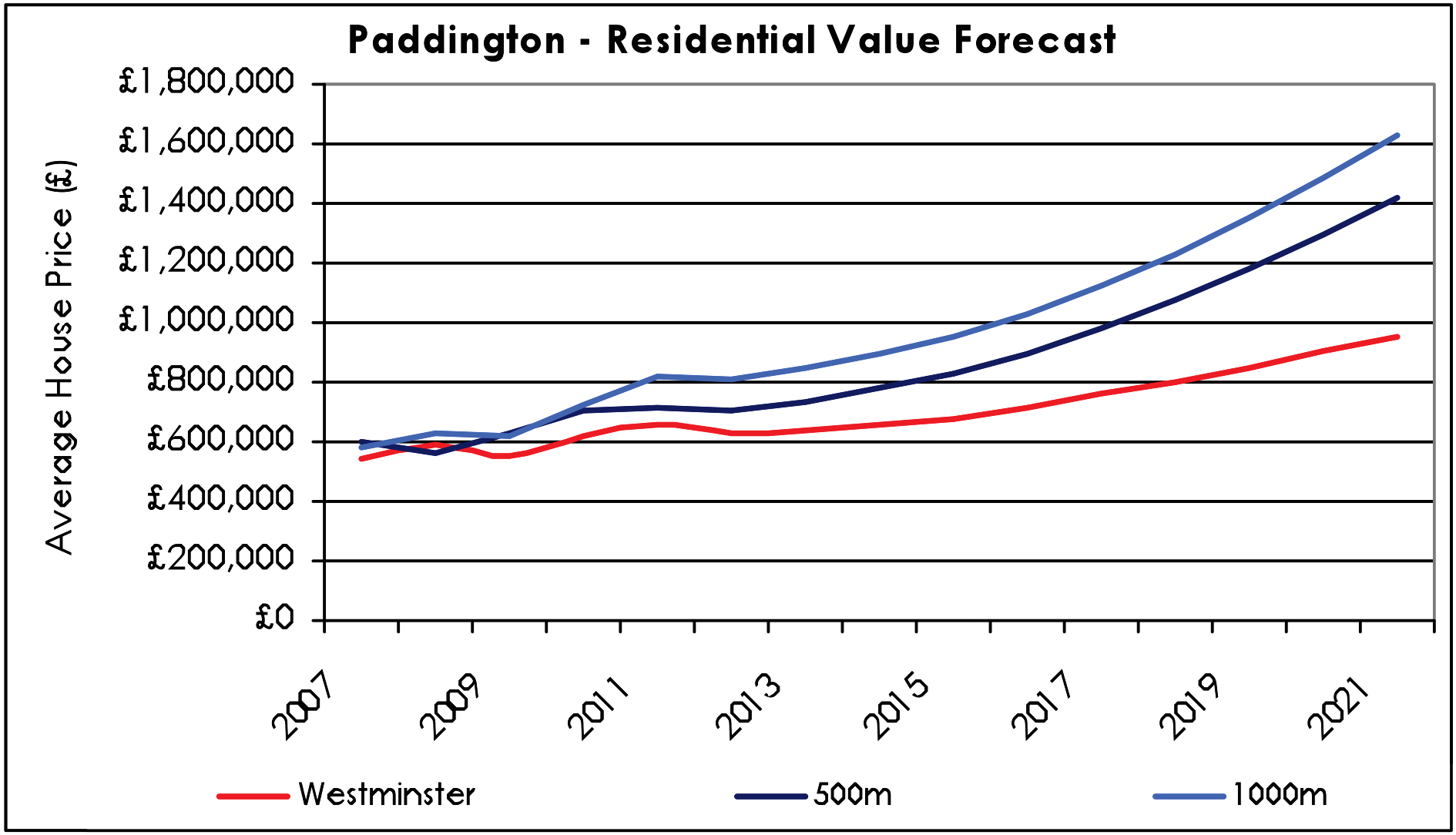
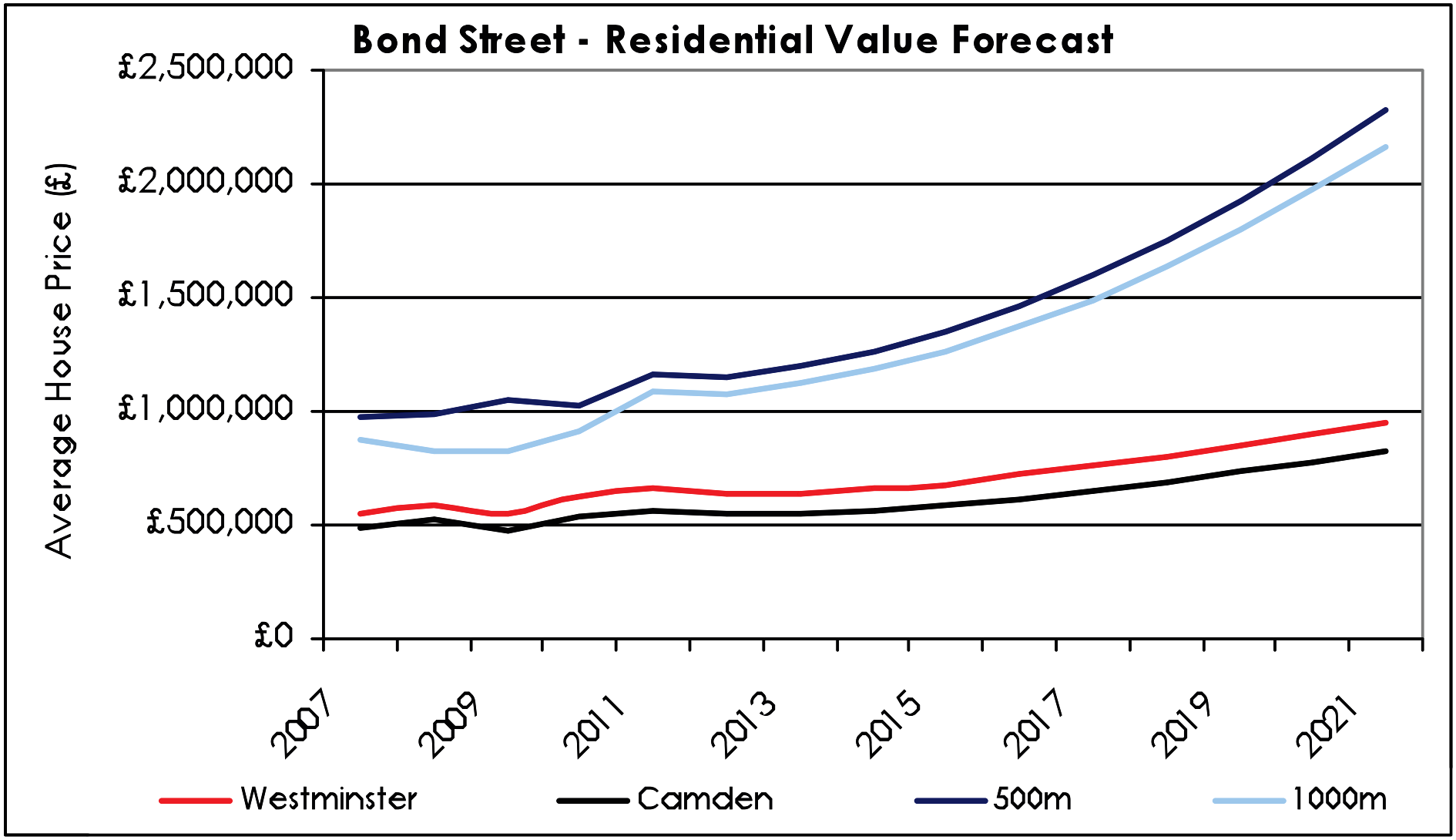
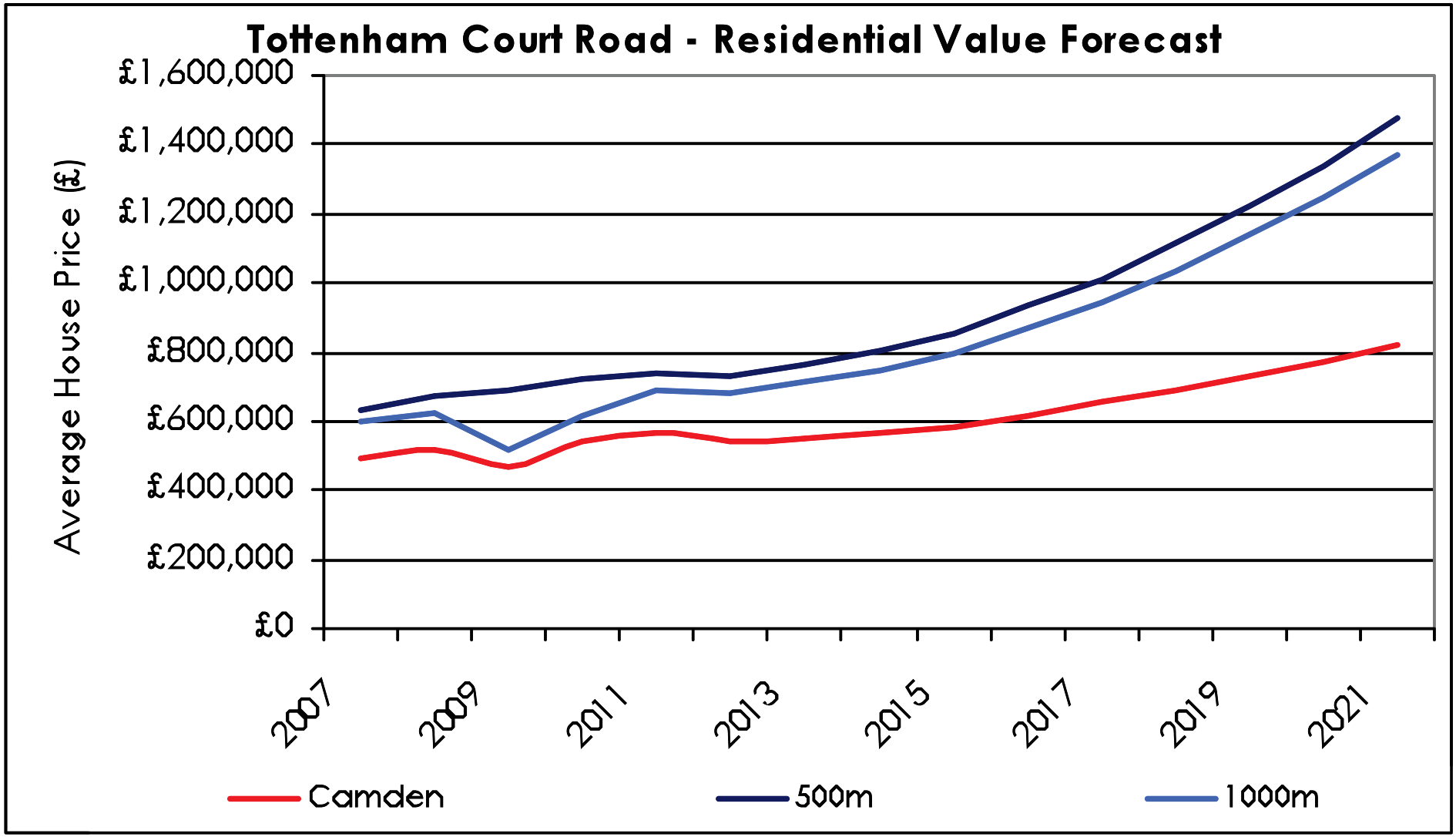
£800,000
£700,000
£600,000
£500,000
£400,000
£300,000
£200,000
£100,000
£0
2007
2009
2011
2013
2015
2017
2019
2021
Ealing
500m
1000m
Extended Zone

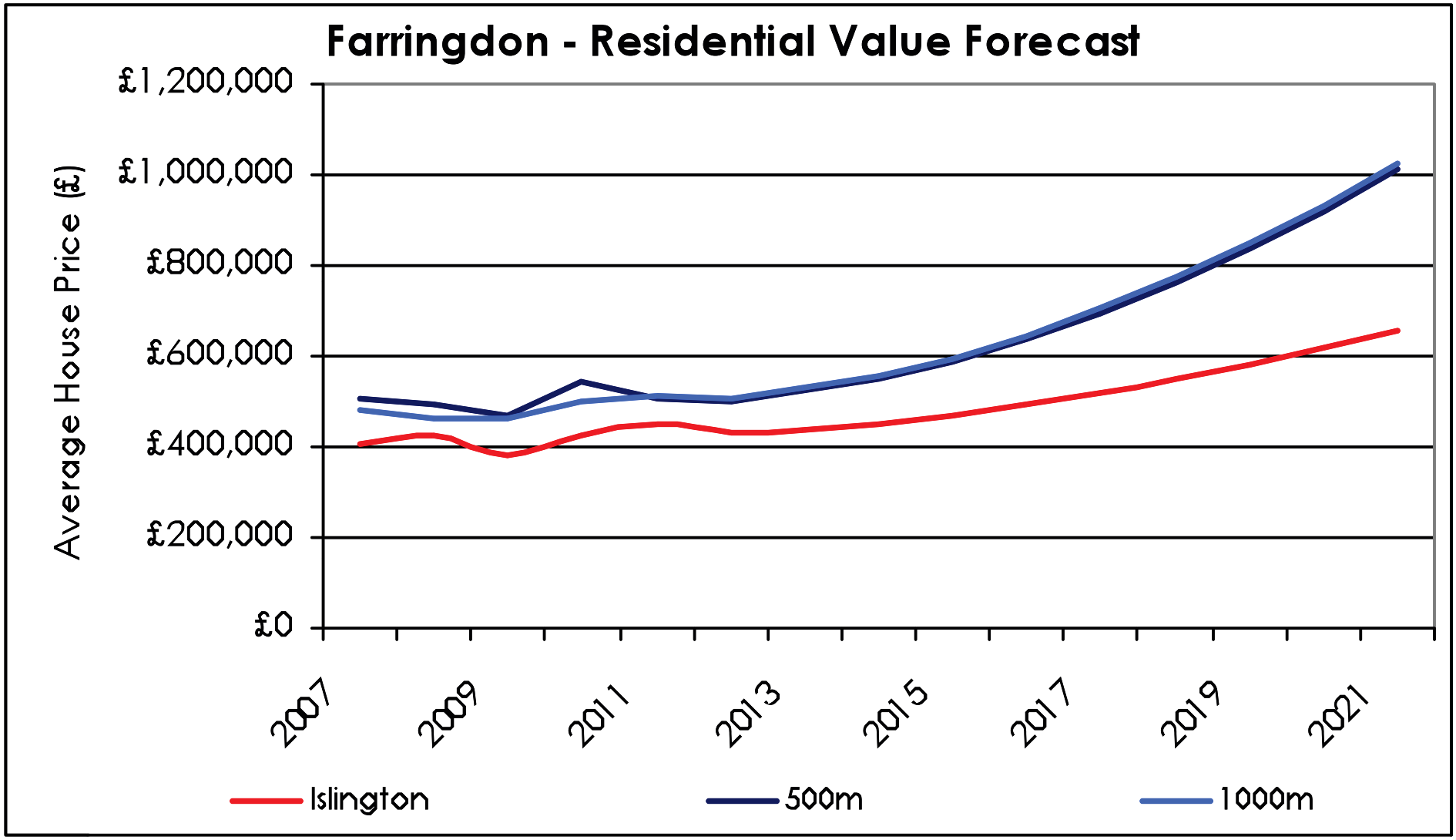

Central Section - 500m Zone of Influence
Average House Price (£)
£2,500,000
£2,000,000
£1,500,000
£1,000,000
£500,000
£0
2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021
Central Sub Surface Section
Paddington
Bond Street
Tottenham Court Road
Farringdon
Liverpool Street
Whitechapel
Canary Wharf

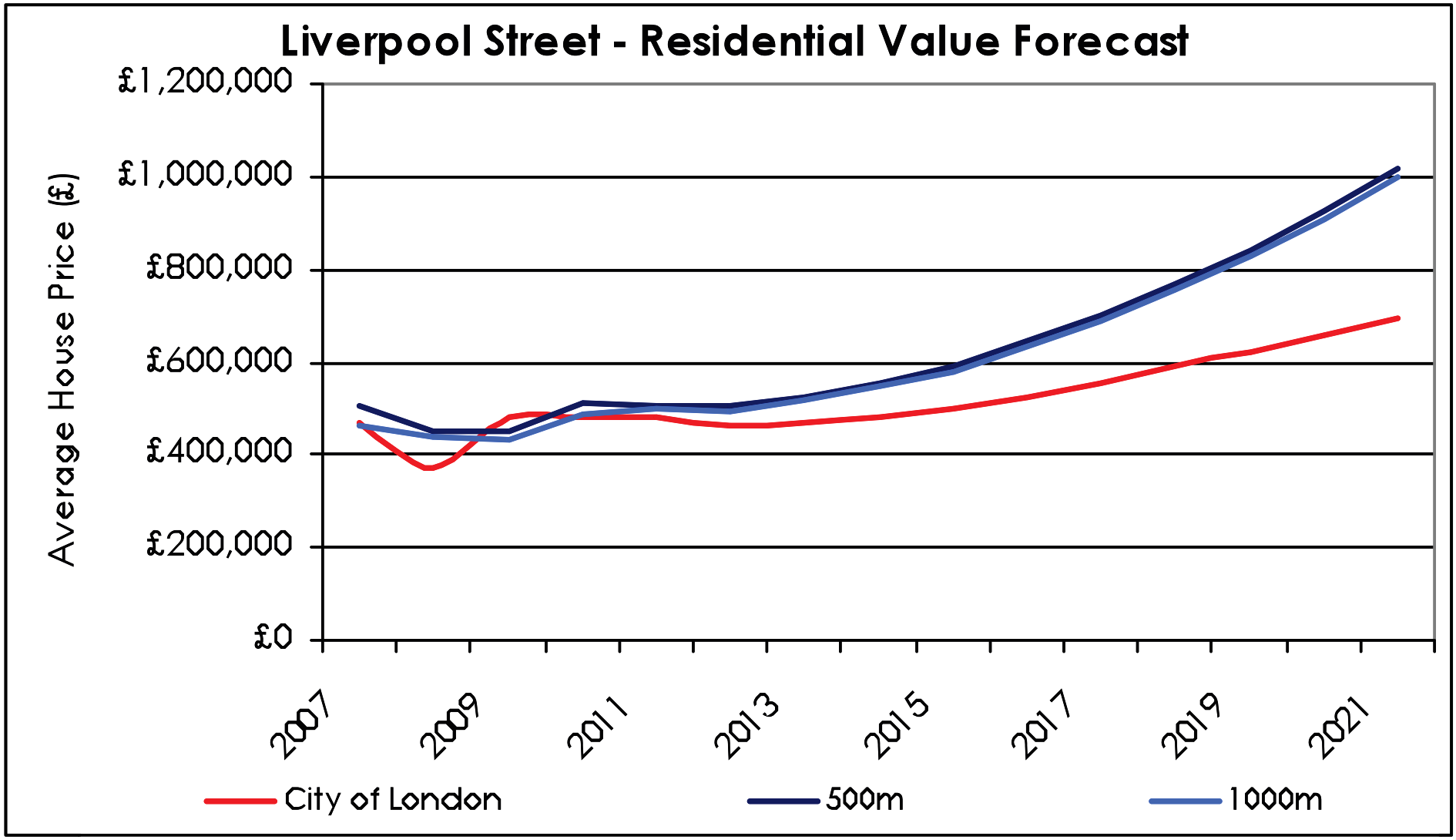

Central Section - 1000m Zone of Influence
Average House Price (£)
£2,500,000
£2,000,000
£1,500,000
£1,000,000
£500,000
£0
2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021
Central Section
Paddington
Bond Street
Tottenham Court Road
Farringdon
Liverpool Street
Whitechapel
Canary Wharf

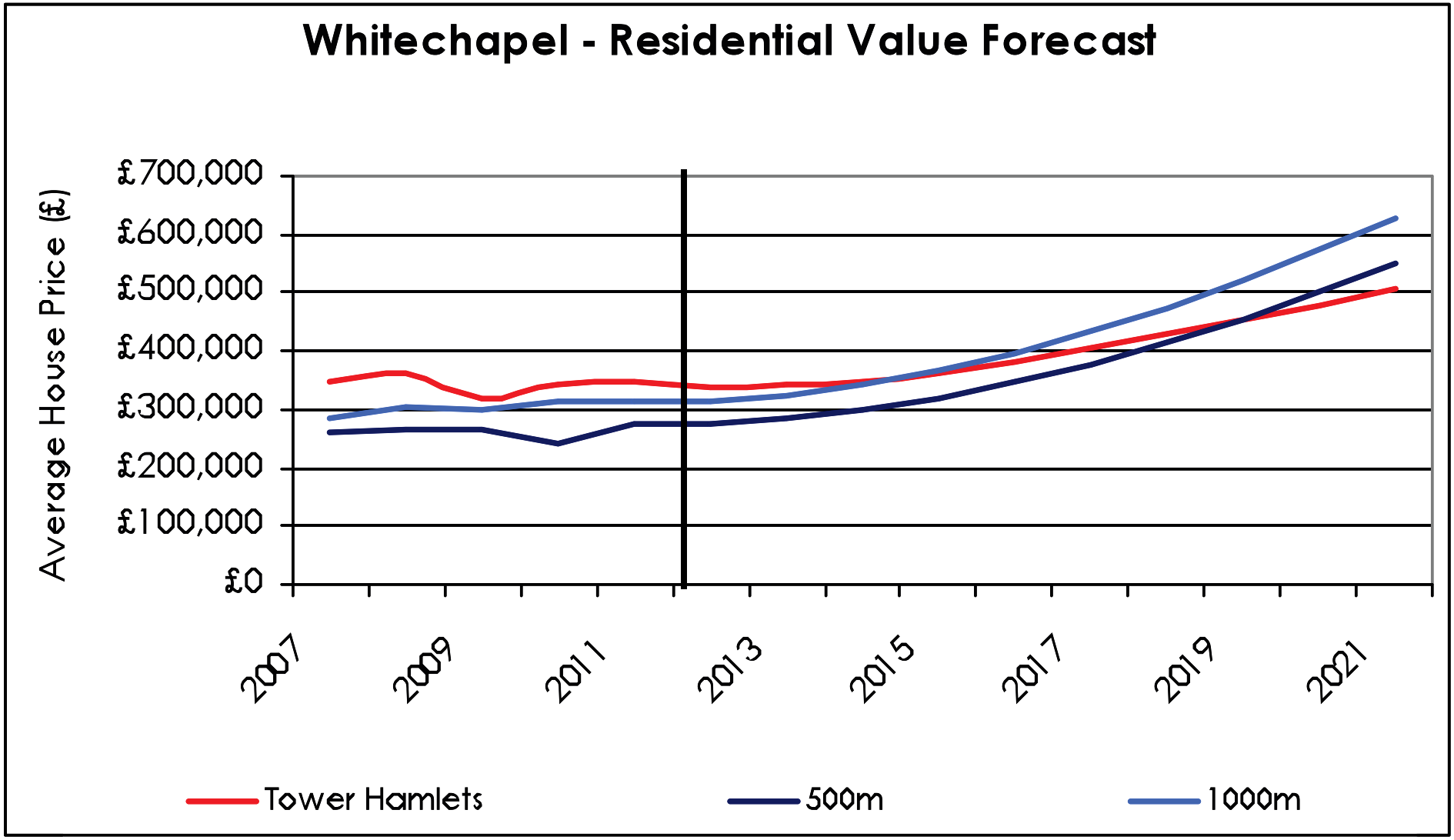

Paddington - Residential Value Forecast
Average House Price (£)
£1,800,000
£1,600,000
£1,400,000
£1,200,000
£1,000,000
£800,000
£600,000
£400,000
£200,000
£0
2007
2009
2011
2013
2015
2017
2019
2021
Westminster
500m
1000m

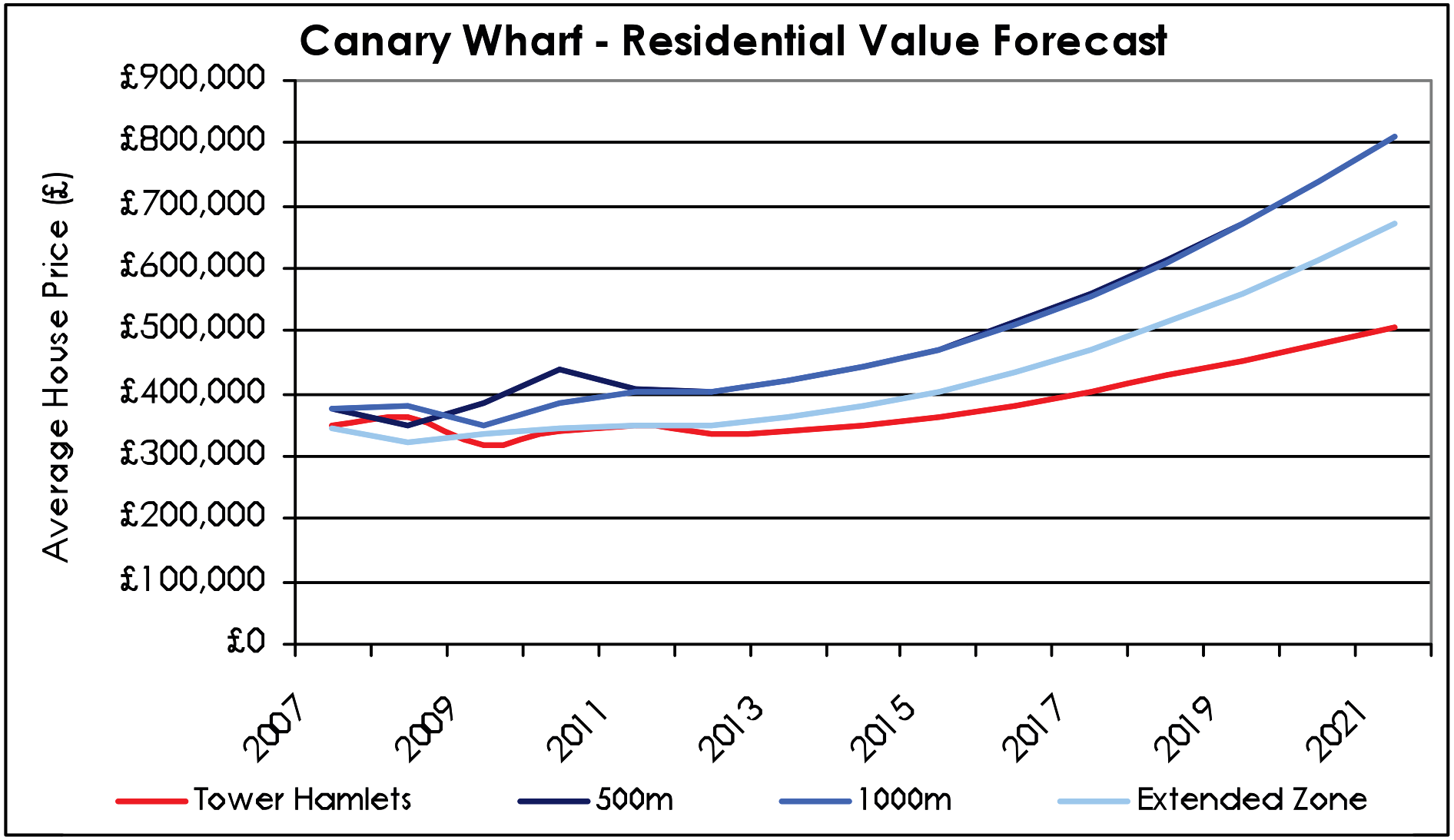

Bond Street - Residential Value Forecast
Average House Price (£)
£2,500,000
£2,000,000
£1,500,000
£1,000,000
£500,000
£0
2007
2009
2011
2013
2015
2017
2019
2021
Westminster
Camden
500m
1000m

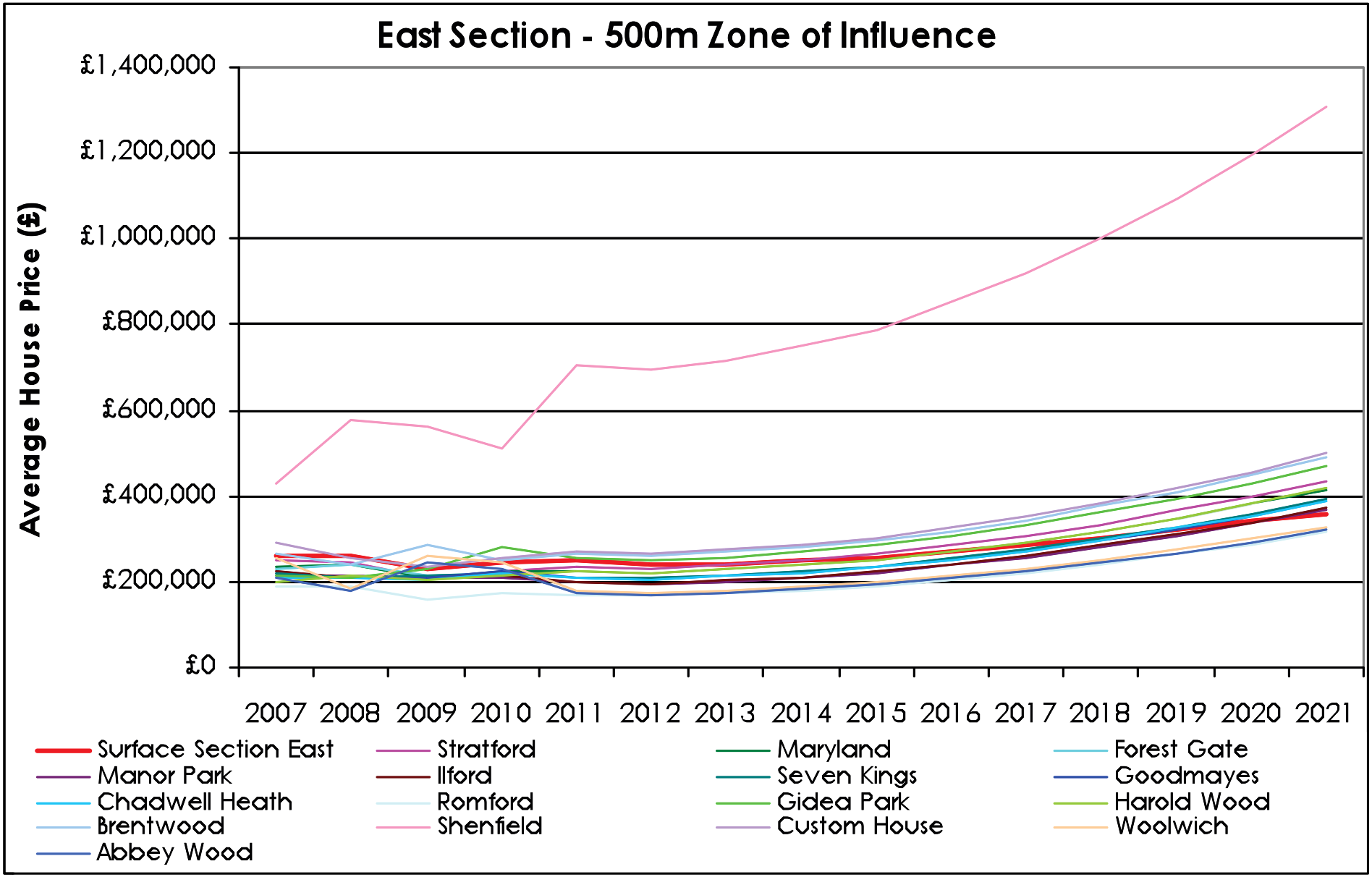

Tottenham Court Road - Residential Value Forecast
Average House Price (£)
£1,600,000
£1,400,000
£1,200,000
£1,000,000
£800,000
£600,000
£400,000
£200,000
£0
2007
2009
2011
2013
2015
2017
2019
2021
Camden
500m
1000m

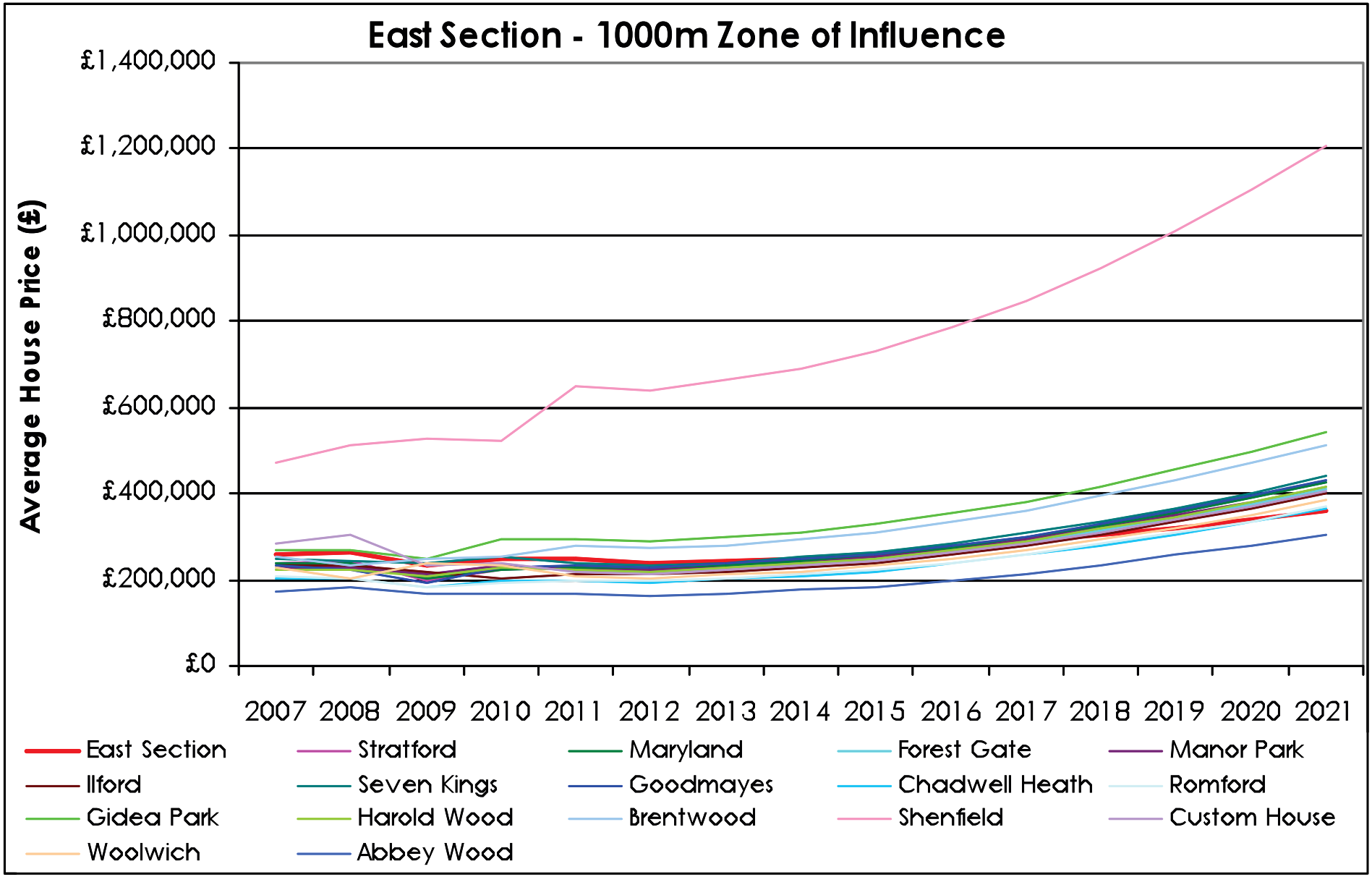

Farringdon - Residential Value Forecast
Average House Price (£)
£1,200,000
£1,000,000
£800,000
£600,000
£400,000
£200,000
£0
2007
2009
2011
2013
2015
2017
2019
2021
Islington
500m
1000m

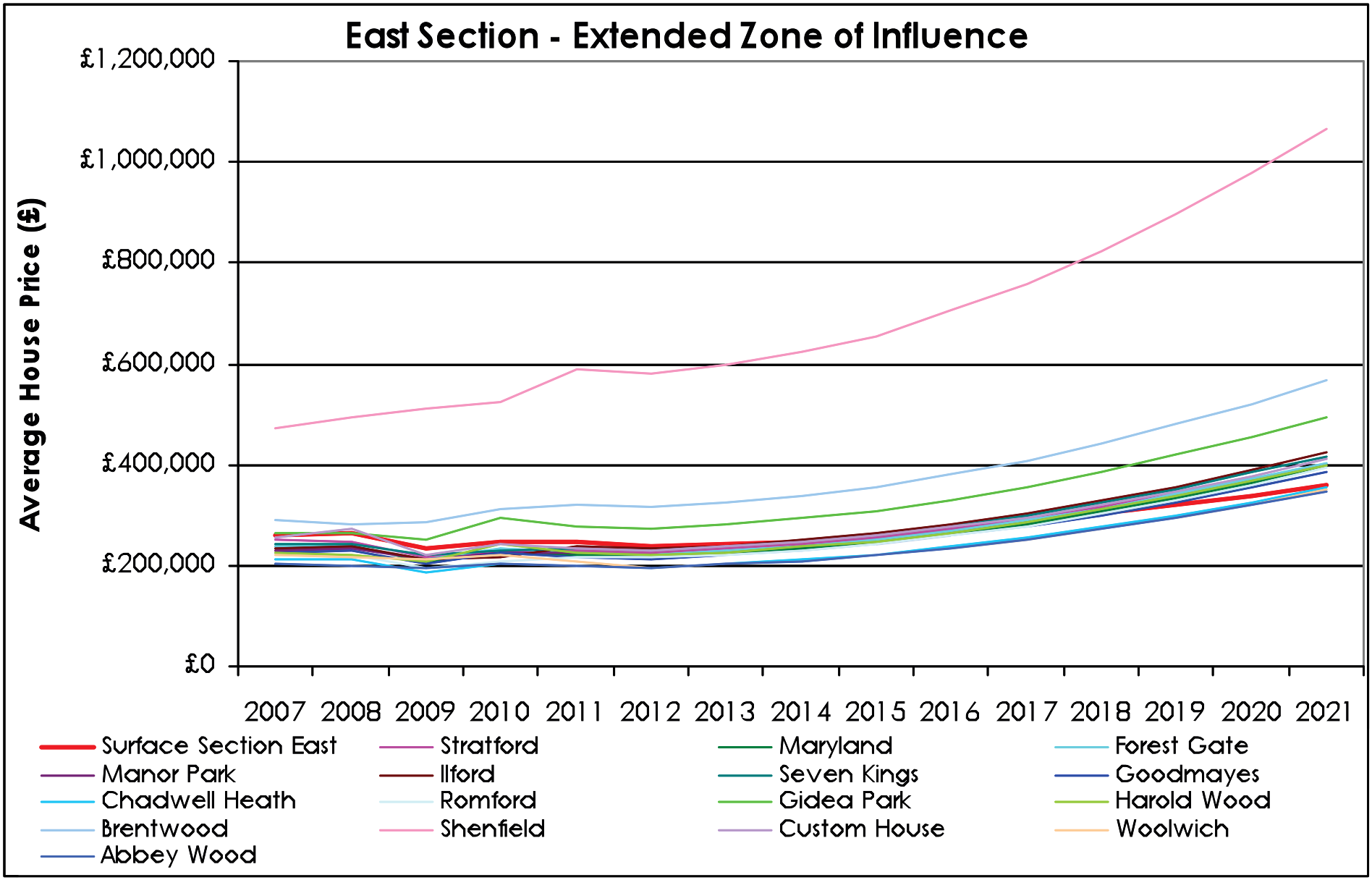

Liverpool Street - Residential Value Forecast
Average House Price (£)
£1,200,000
£1,000,000
£800,000
£600,000
£400,000
£200,000
£0
2007
2009
2011
2013
2015
2017
2019
2021
City of London
500m
1000m

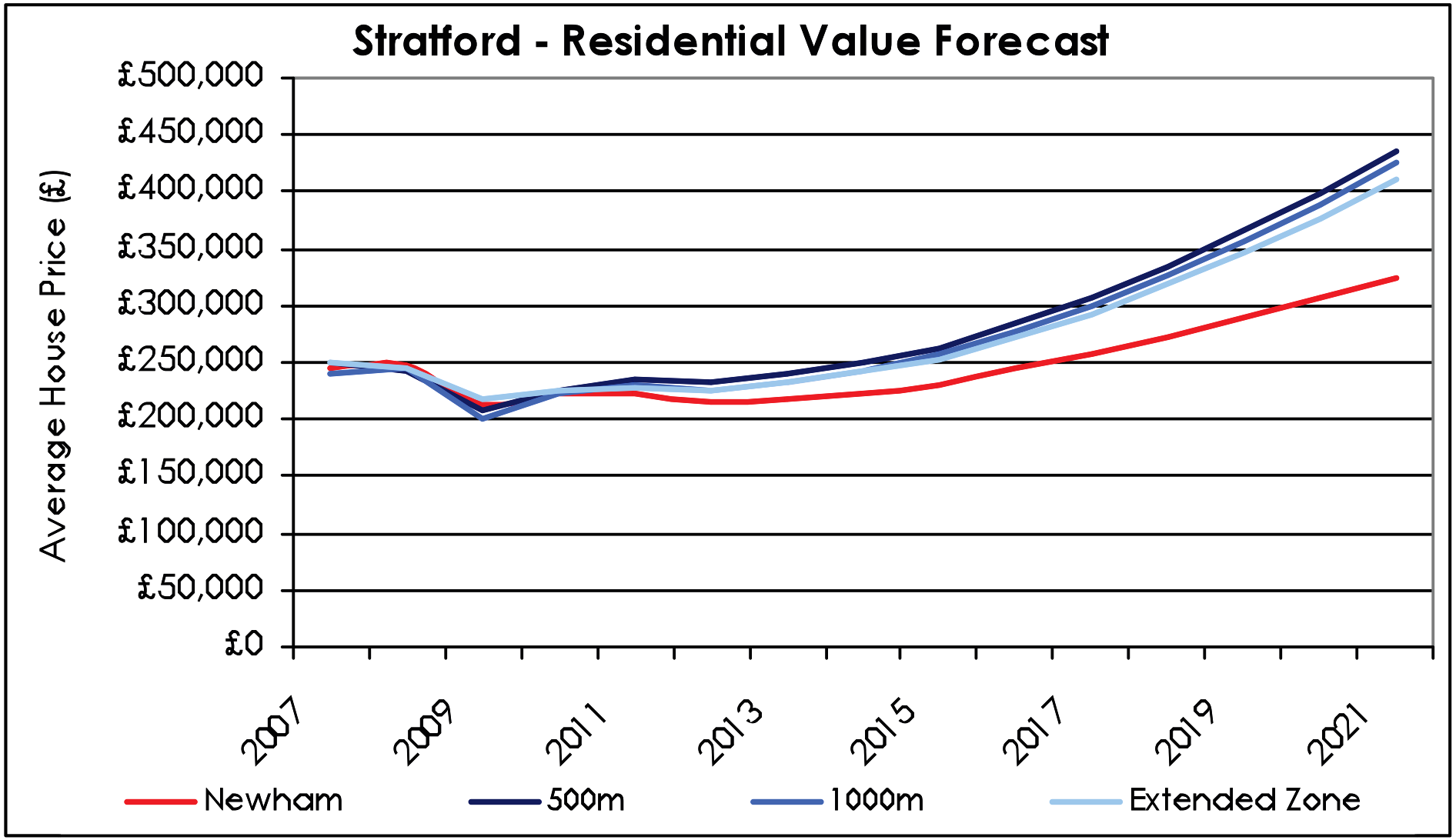

Whitechapel - Residential Value Forecast
Average House Price (£)
£700,000
£600,000
£500,000
£400,000
£300,000
£200,000
£100,000
£0
2007
2009
2011
2013
2015
2017
2019
2021
Tower Hamlets
500m
1000m

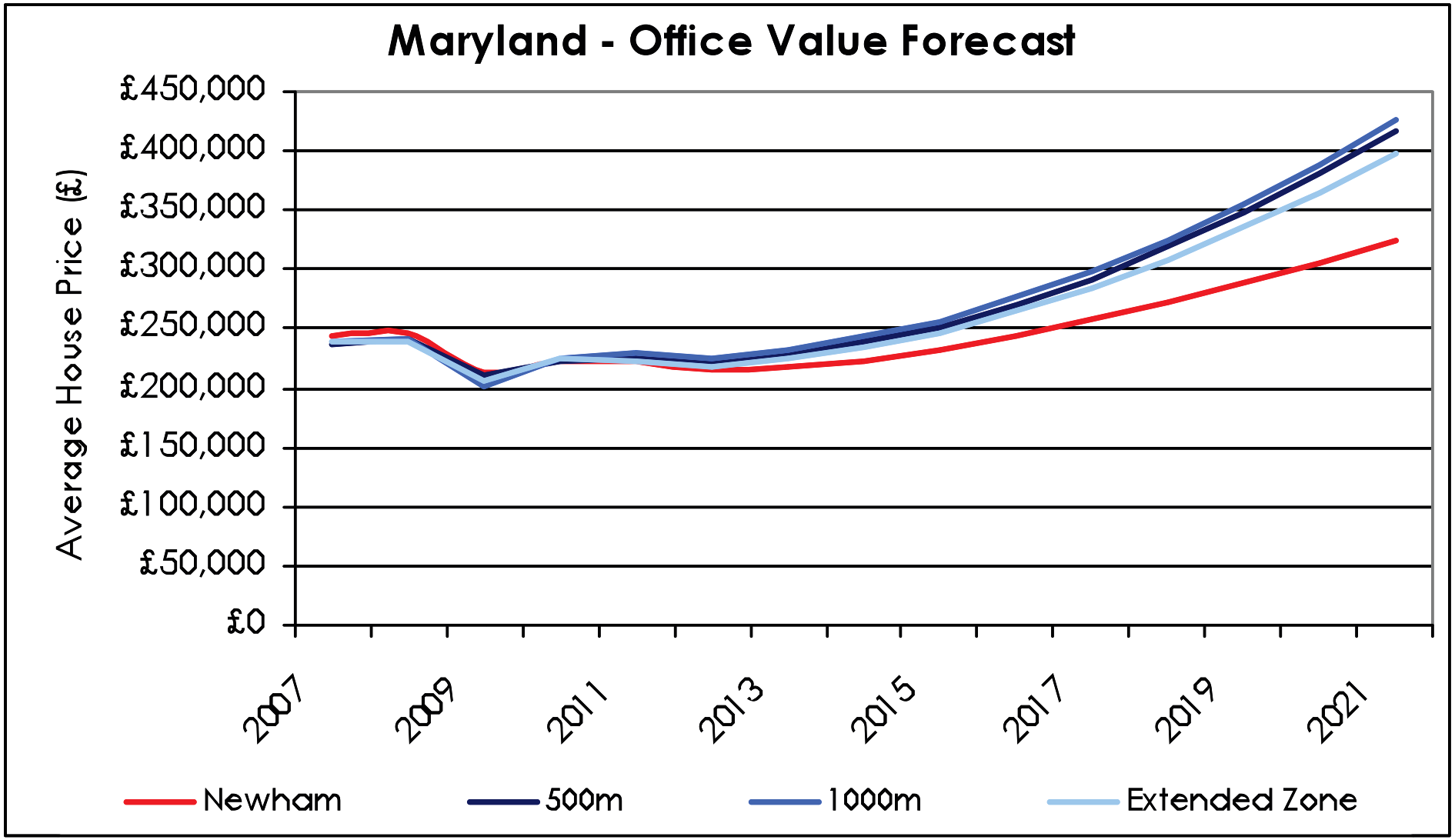

Canary Wharf - Residential Value Forecast
Average House Price (£)
£900,000
£800,000
£700,000
£600,000
£500,000
£400,000
£300,000
£200,000
£100,000
£0
2007
2009
2011
2013
2015
2017
2019
2021
Tower Hamlets
500m
1000m
Extended Zone

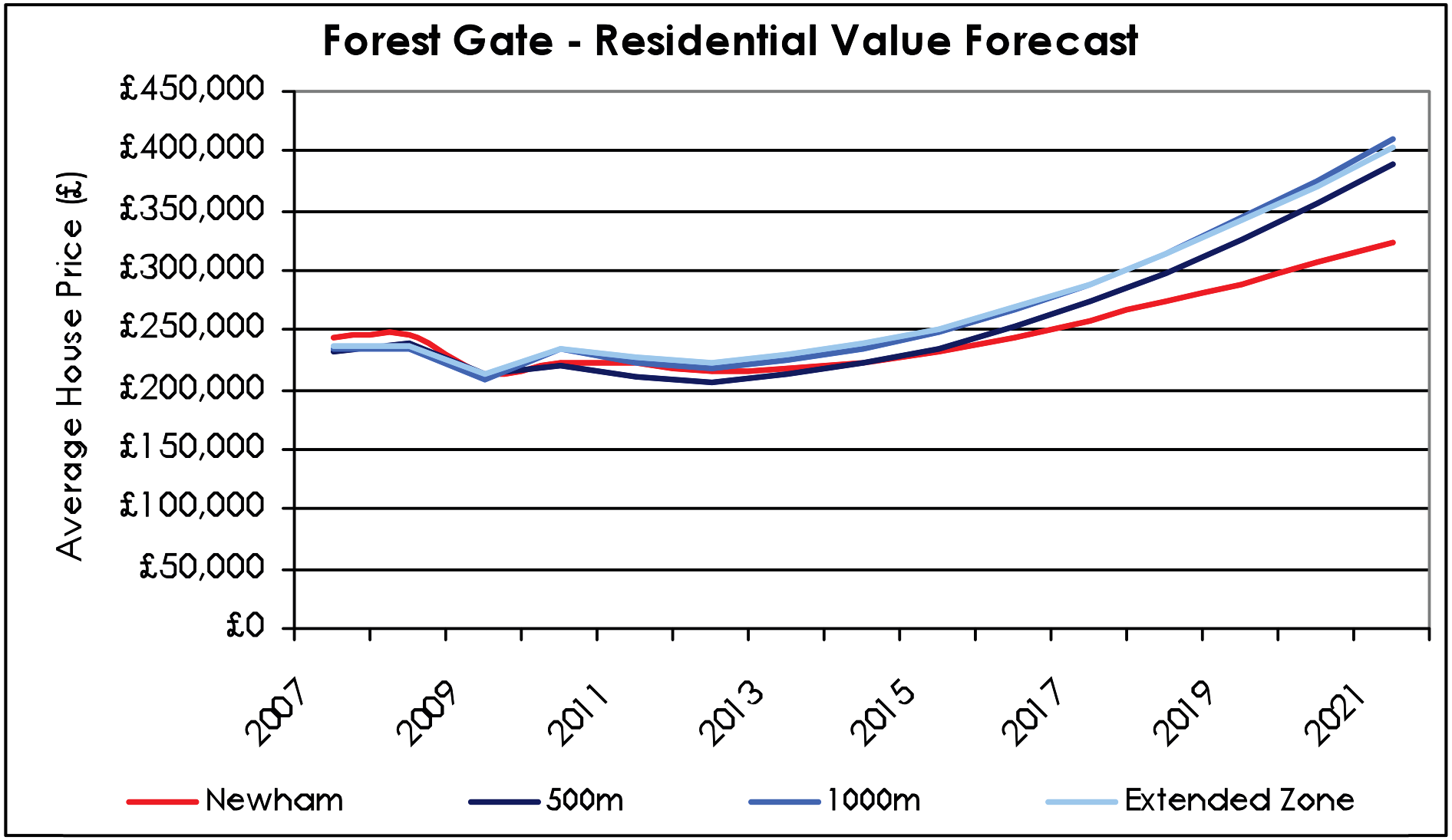

East Section - 500m Zone of Influence
Average House Price (£)
£1,400,000
£1,200,000
£1,000,000
£800,000
£600,000
£400,000
£200,000
£0
2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021
Surface Section East
Stratford
Maryland
Forest Gate
Manor Park
Ilford
Seven Kings
Goodmayes
Chadwell Heath
Romford
Gidea Park
Harold Wood
Brentwood
Shenfield
Custom House
Woolwich
Abbey Wood

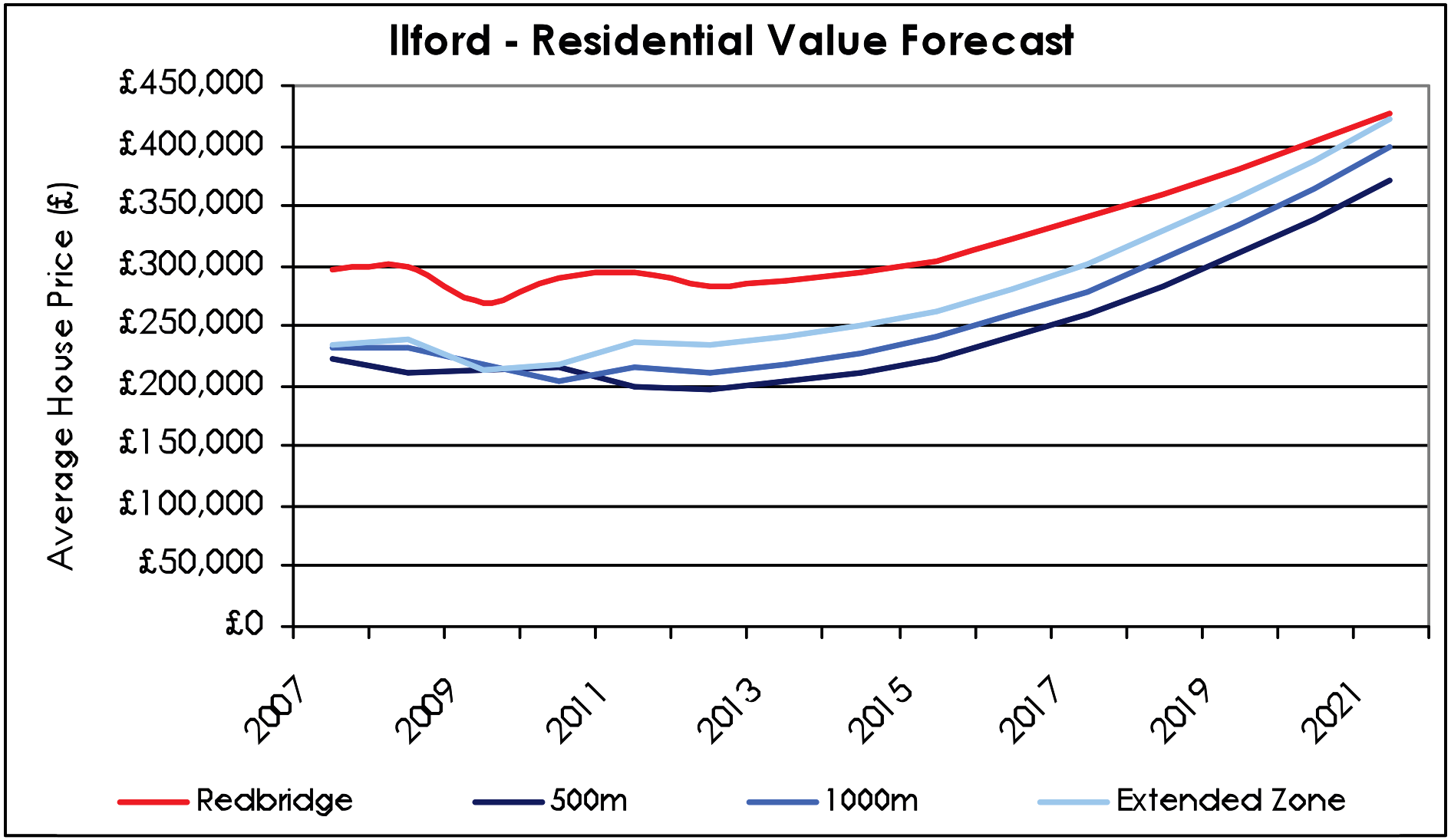

East Section - 1000m Zone of Influence
Average House Price (£)
£1,400,000
£1,200,000
£1,000,000
£800,000
£600,000
£400,000
£200,000
£0
2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021
East Section
Stratford
Maryland
Forest Gate
Manor Park
Ilford
Seven Kings
Goodmayes
Chadwell Heath
Romford
Gidea Park
Harold Wood
Brentwood
Shenfield
Custom House
Woolwich
Abbey Wood

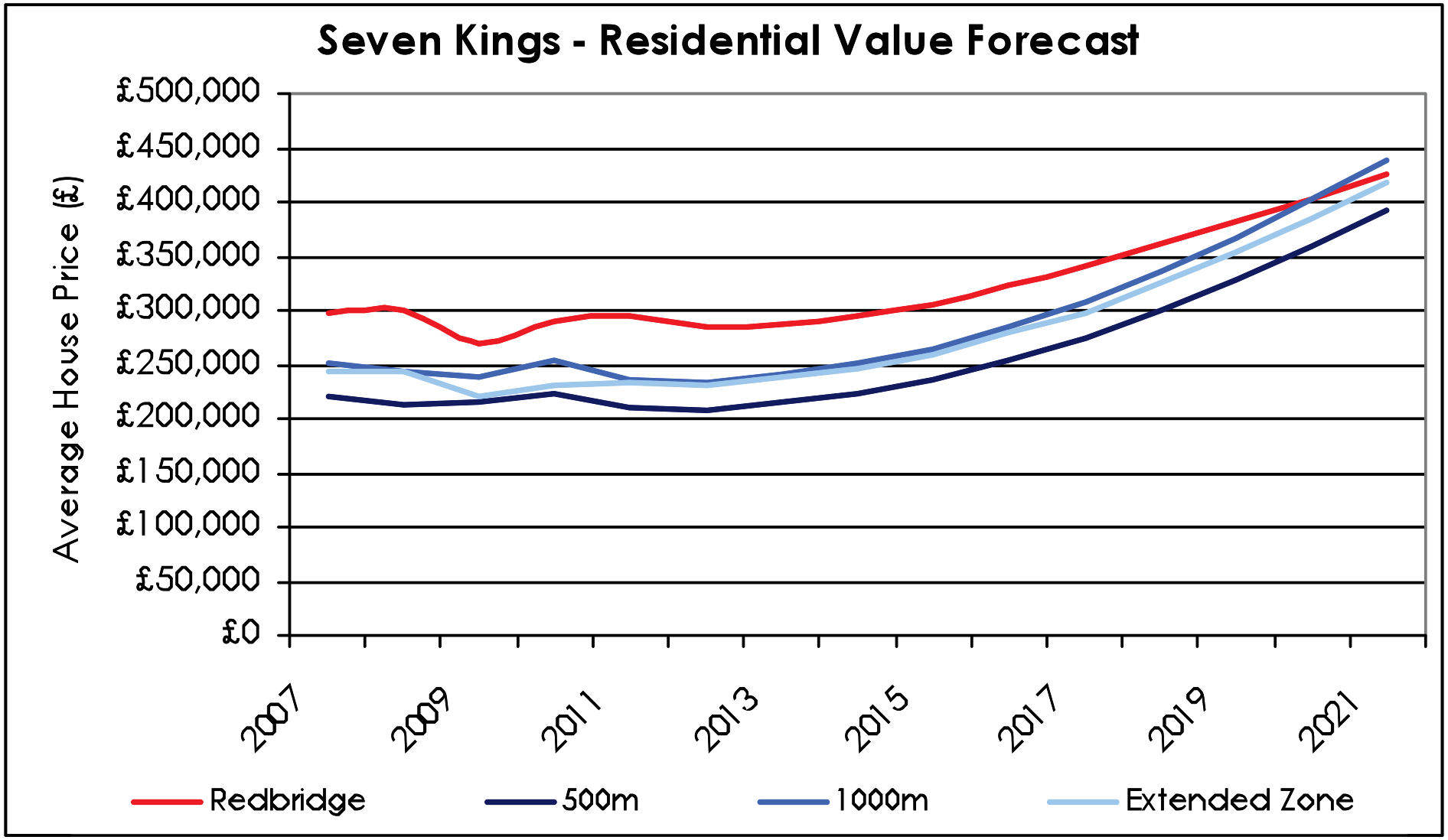

East Section - Extended Zone of Influence
Average House Price (£)
£1,200,000
£1,000,000
£800,000
£600,000
£400,000
£200,000
£0
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
Surface Section East
Stratford
Maryland
Forest Gate
Manor Park
Ilford
Seven Kings
Goodmayes
Chadwell Heath
Romford
Gidea Park
Harold Wood
Brentwood
Shenfield
Custom House
Woolwich
Abbey Wood

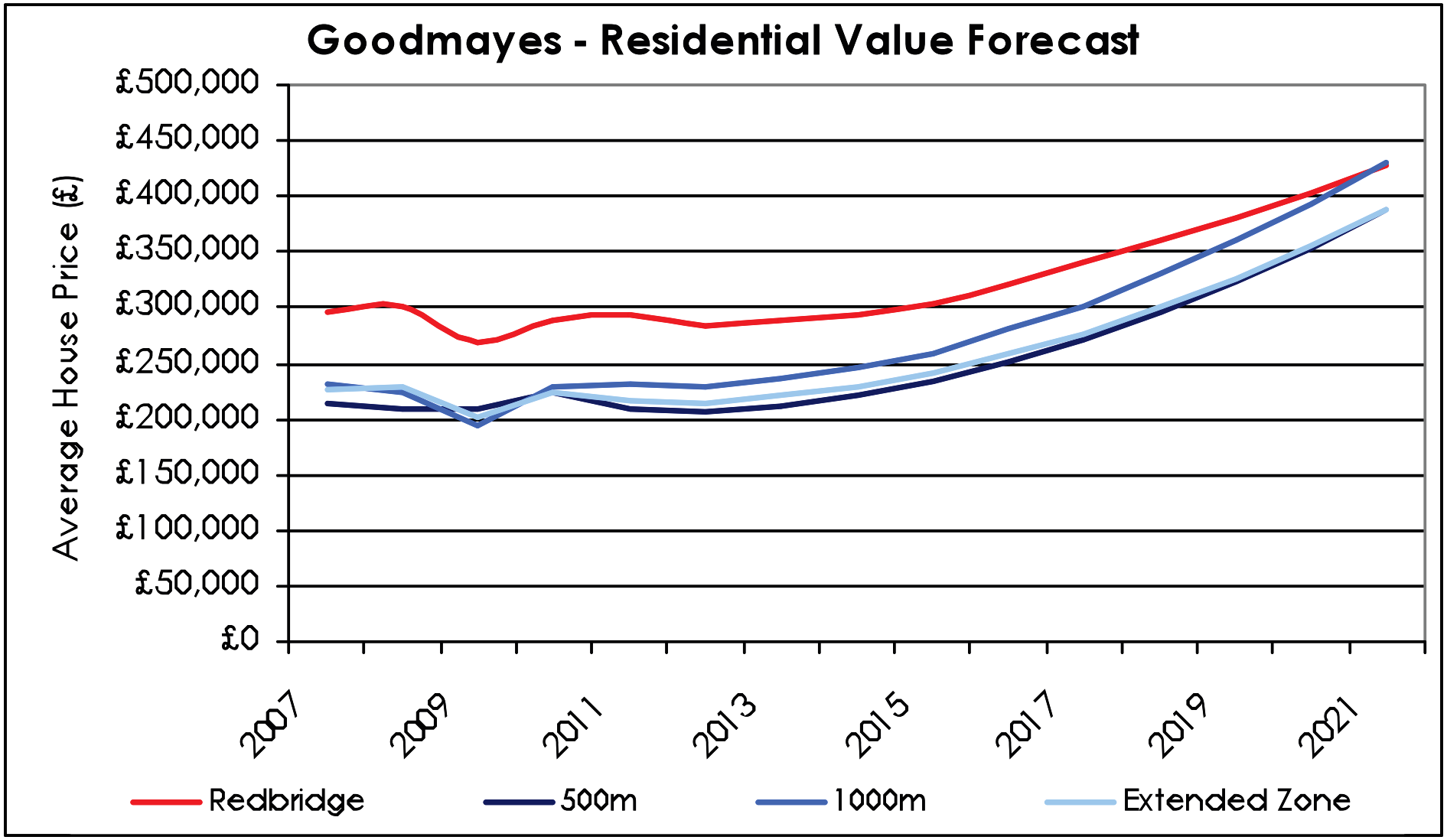

Stratford - Residential Value Forecast
Average House Price (£)
£500,000
£450,000
£400,000
£350,000
£300,000
£250,000
£200,000
£150,000
£100,000
£50,000
£0
2007
2009
2011
2013
2015
2017
2019
2021
Newham
500m
1000m
Extended Zone

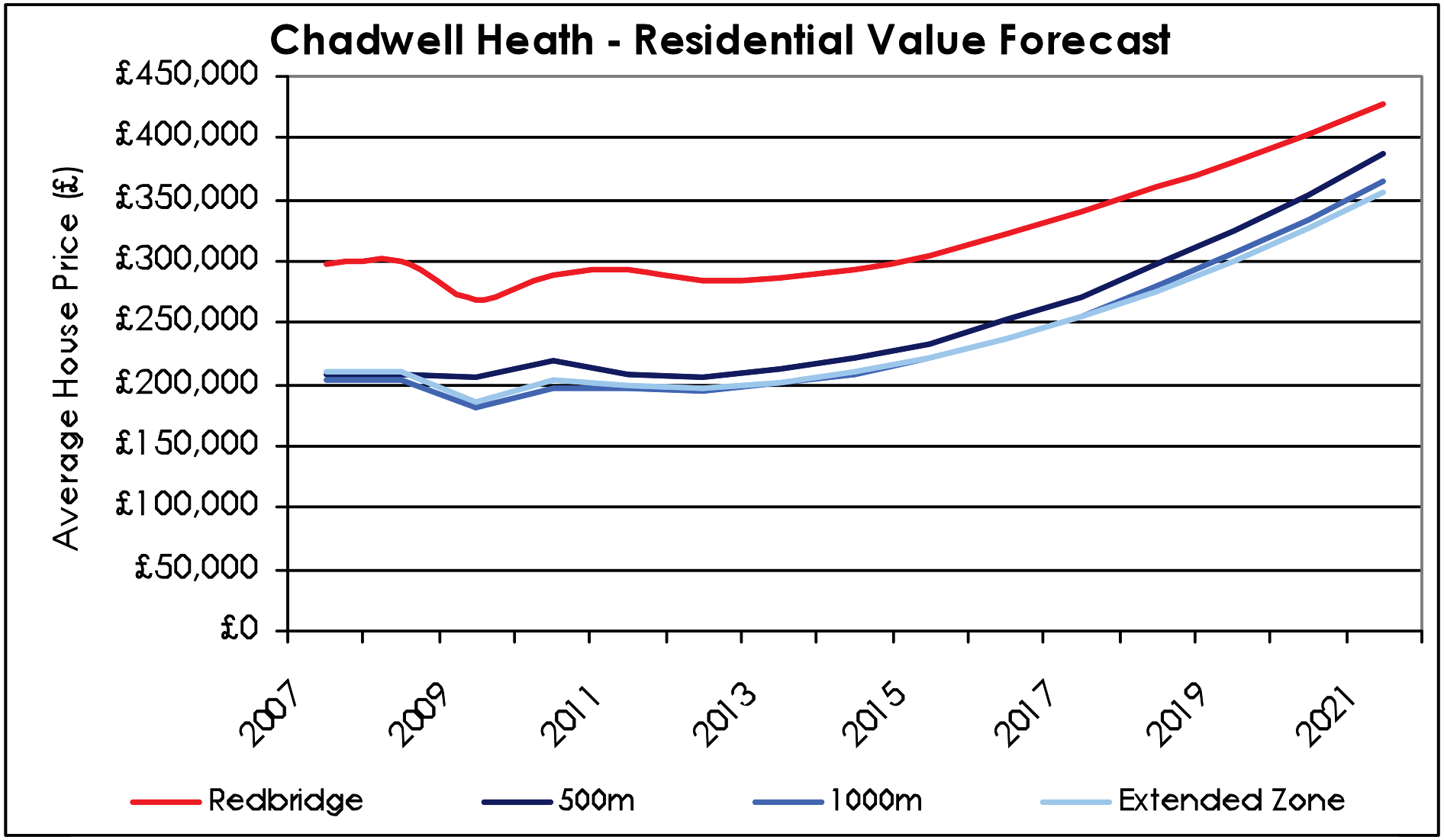

Maryland - Office Value Forecast
Average House Price (£)
£450,000
£400,000
£350,000
£300,000
£250,000
£200,000
£150,000
£100,000
£50,000
£0
2007
2009
2011
2013
2015
2017
2019
2021
Newham
500m
1000m
Extended Zone

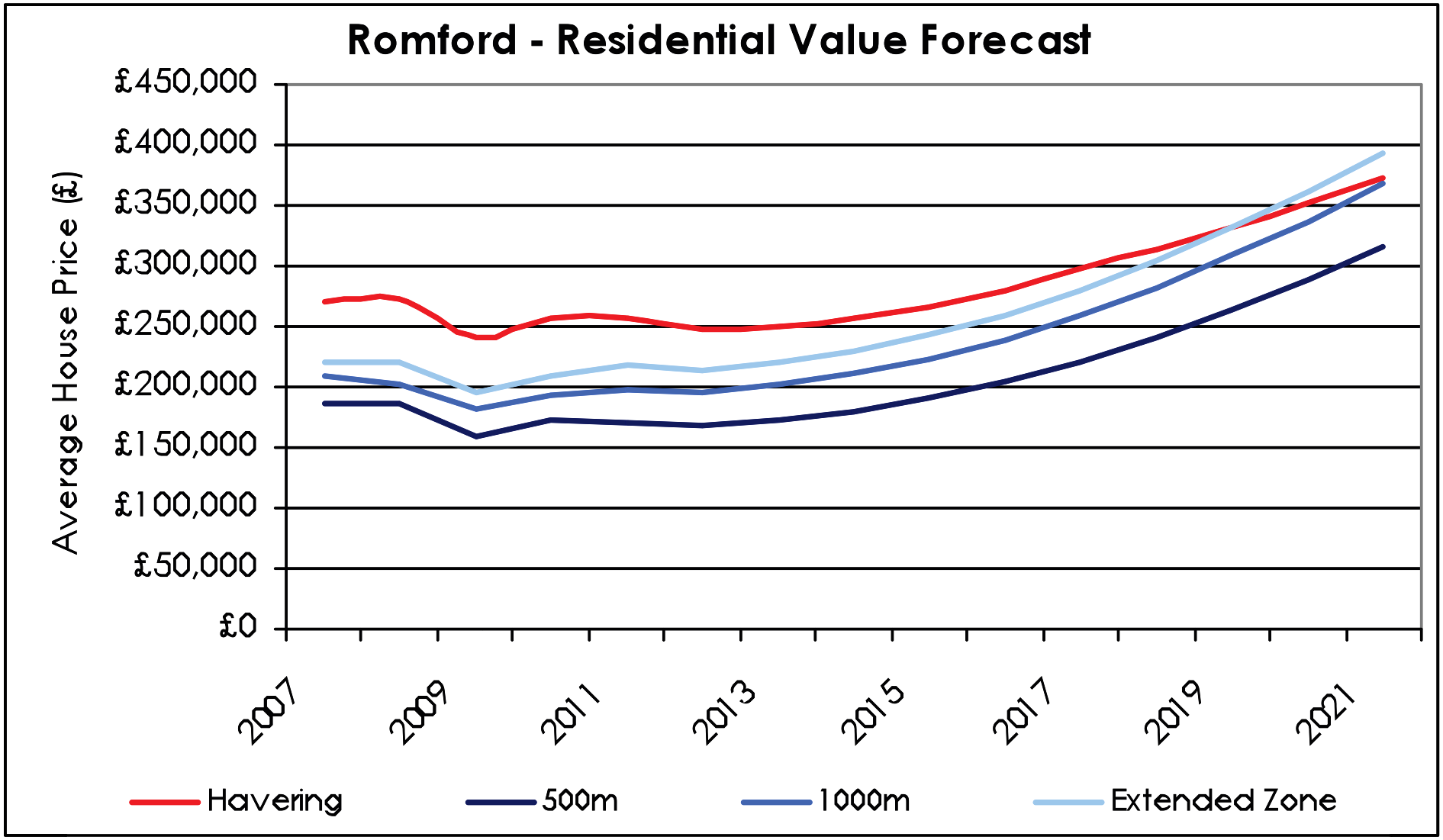

Forest Gate - Residential Value Forecast
Average House Price (£)
£450,000
£400,000
£350,000
£300,000
£250,000
£200,000
£150,000
£100,000
£50,000
£0
2007
2009
2011
2013
2015
2017
2019
2021
Newham
500m
1000m
Extended Zone

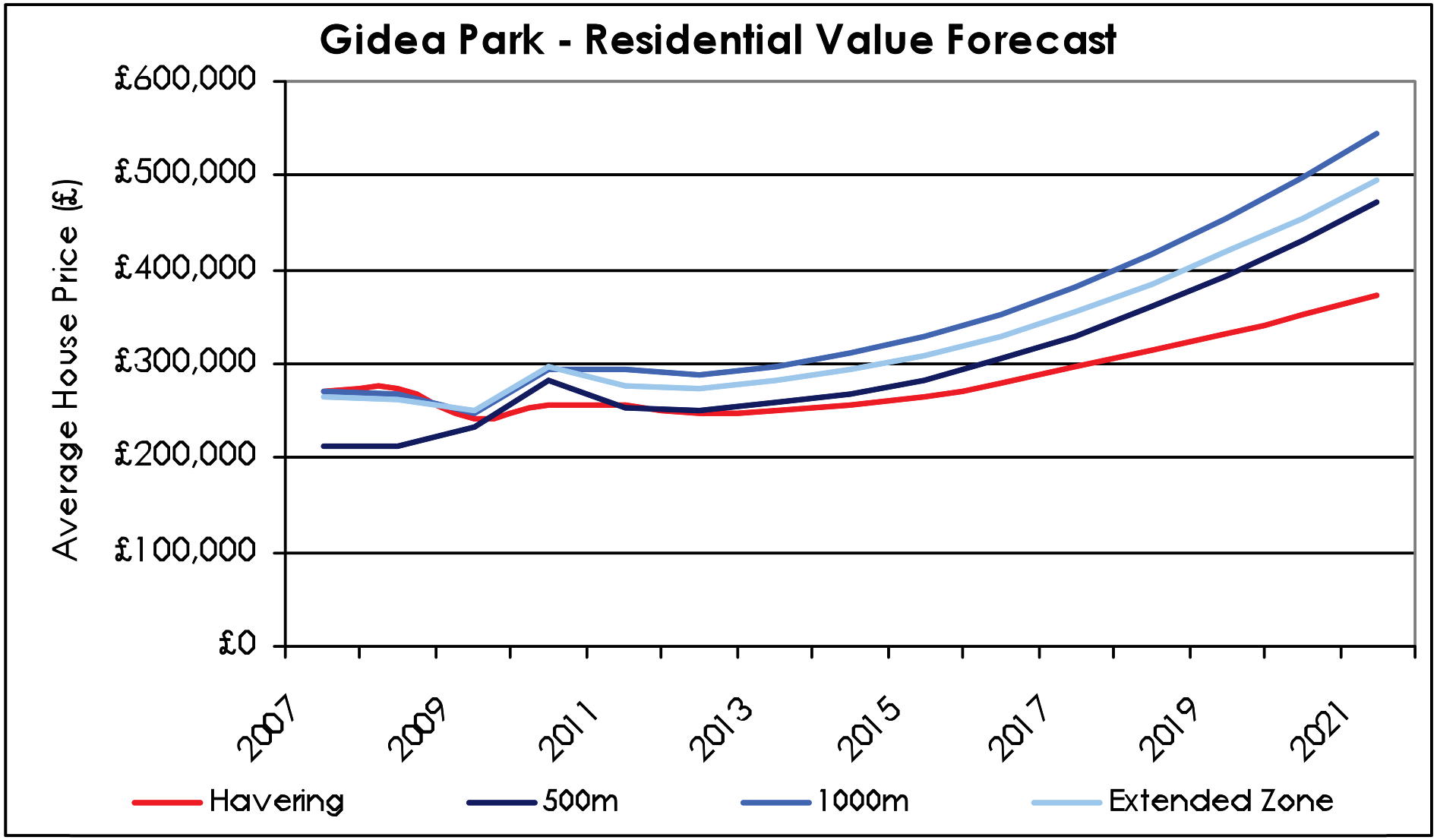

Ilford - Residential Value Forecast
Average House Price (£)
£450,000
£400,000
£350,000
£300,000
£250,000
£200,000
£150,000
£100,000
£50,000
£0
2007
2009
2011
2013
2015
2017
2019
2021
Redbridge
500m
1000m
Extended Zone

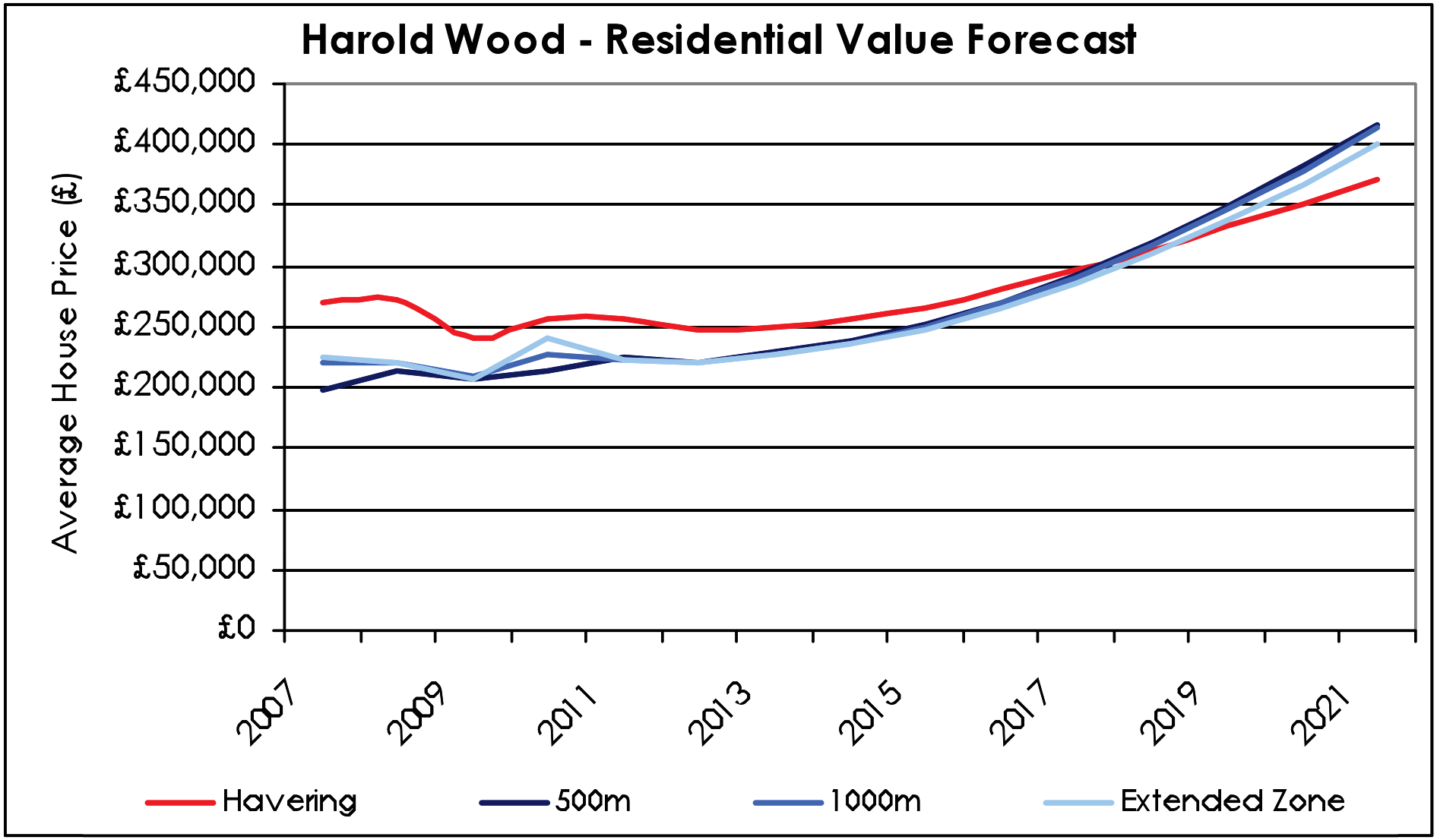

Seven Kings - Residential Value Forecast
Average House Price (£)
£500,000
£450,000
£400,000
£350,000
£300,000
£250,000
£200,000
£150,000
£100,000
£50,000
£0
2007
2009
2011
2013
2015
2017
2019
2021
Redbridge
500m
1000m
Extended Zone

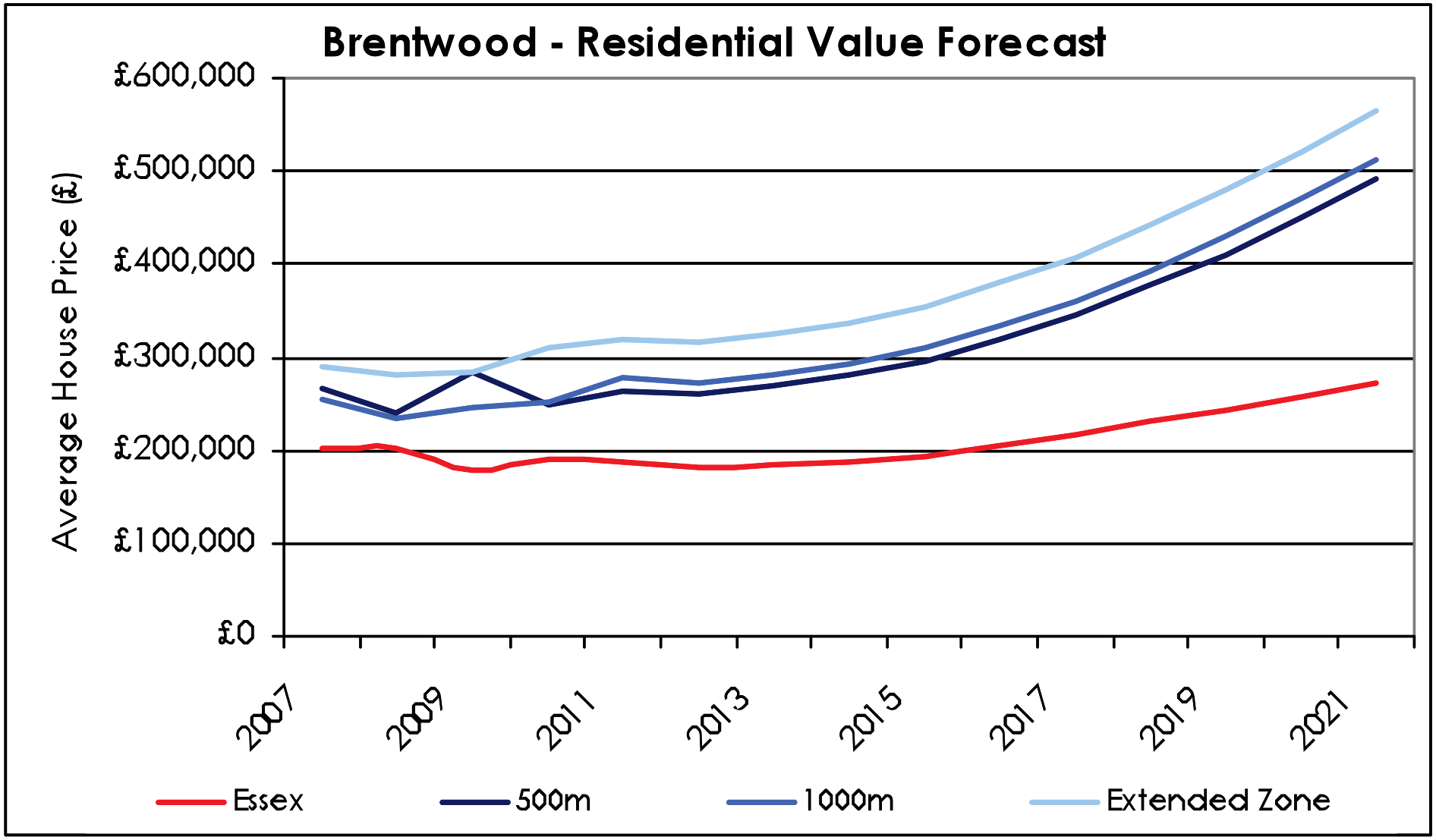

Goodmayes - Residential Value Forecast
Average House Price (£)
£500,000
£450,000
£400,000
£350,000
£300,000
£250,000
£200,000
£150,000
£100,000
£50,000
£0
2007
2009
2011
2013
2015
2017
2019
2021
Redbridge
500m
1000m
Extended Zone

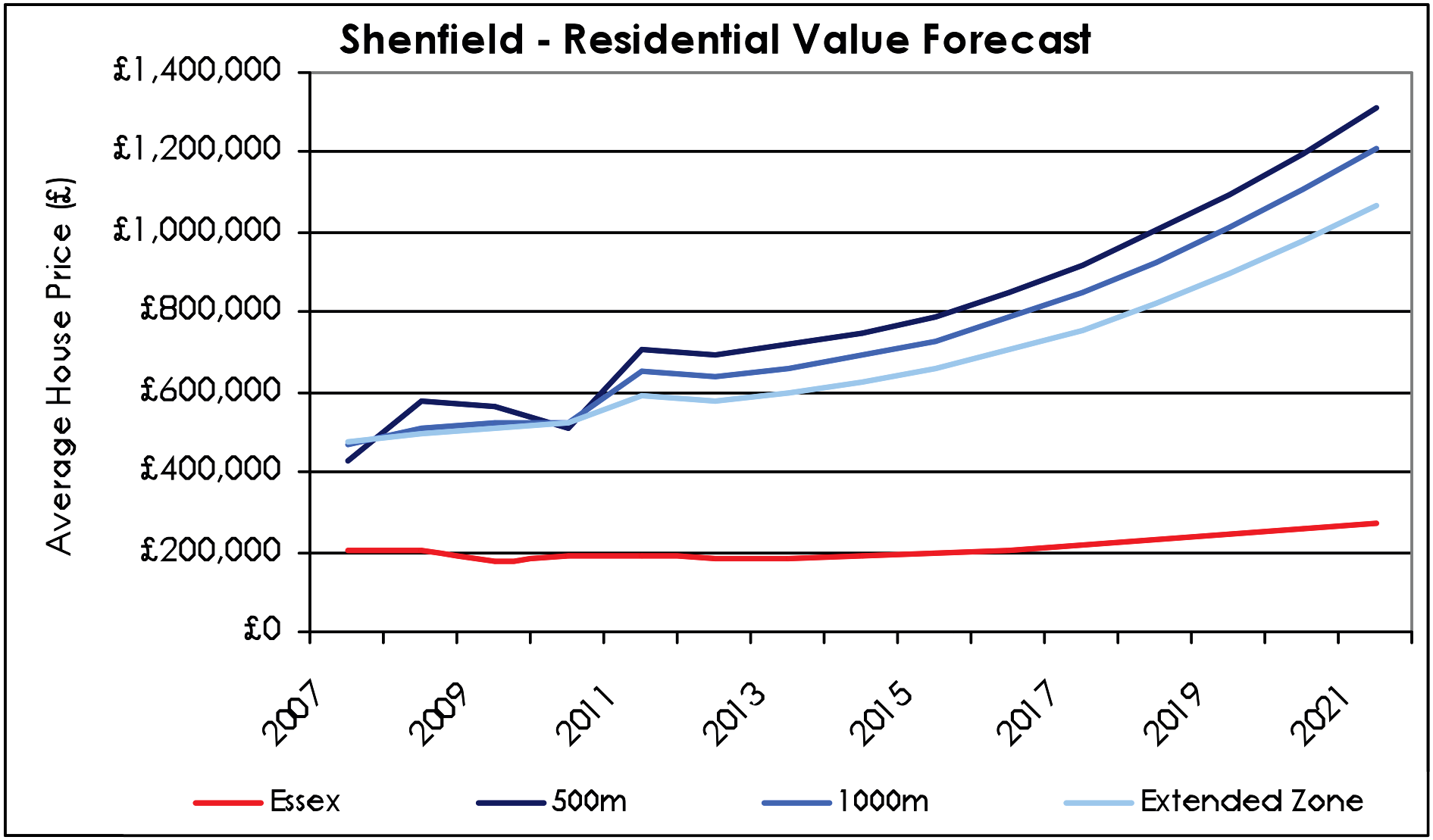

Chadwell Heath - Residential Value Forecast
Average House Price (£)
£450,000
£400,000
£350,000
£300,000
£250,000
£200,000
£150,000
£100,000
£50,000
£0
2007
2009
2011
2013
2015
2017
2019
2021
Redbridge
500m
1000m
Extended Zone

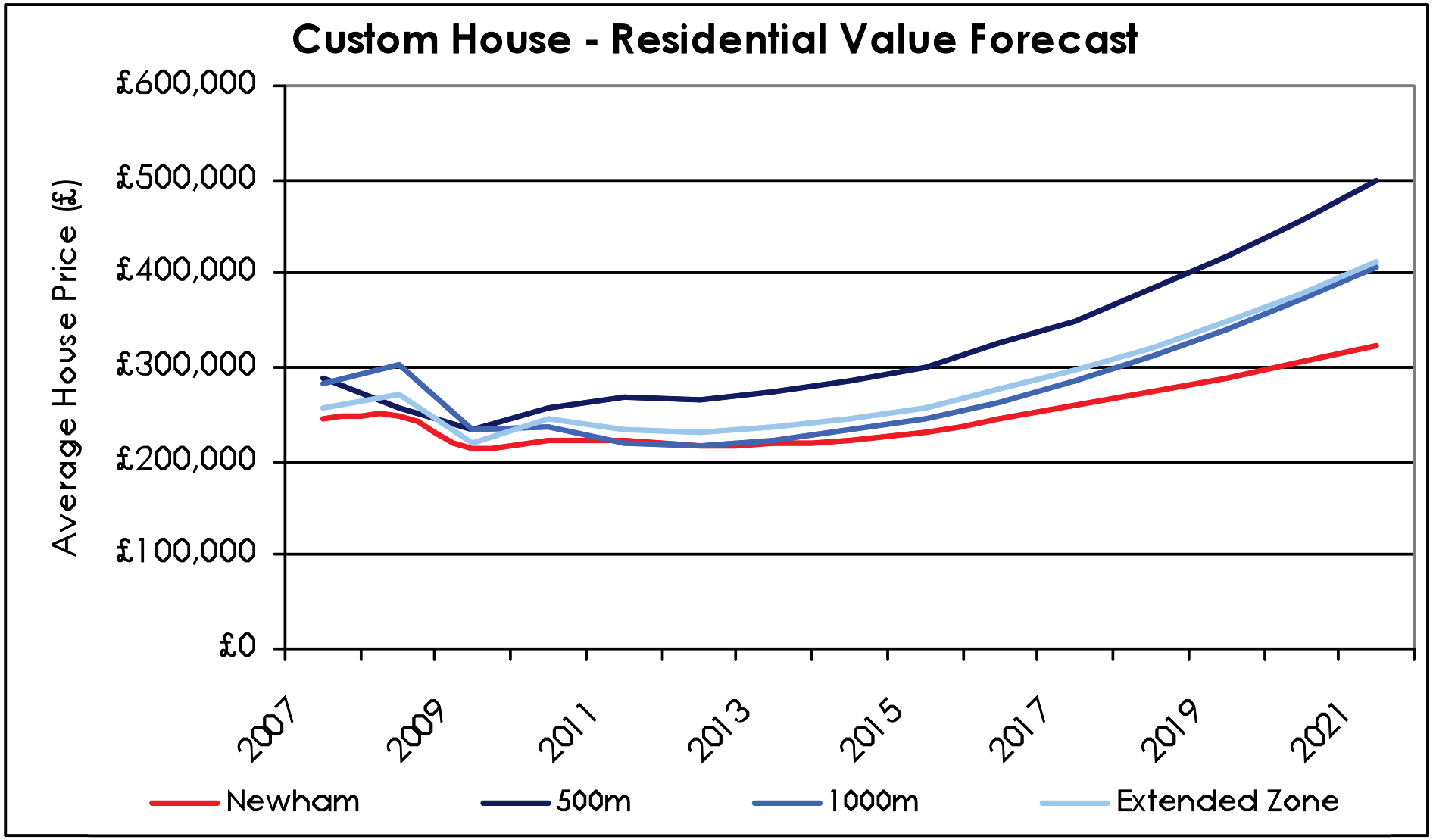

Romford - Residential Value Forecast
Average House Price (£)
£450,000
£400,000
£350,000
£300,000
£250,000
£200,000
£150,000
£100,000
£50,000
£0
2007
2009
2011
2013
2015
2017
2019
2021
Havering
500m
1000m
Extended Zone

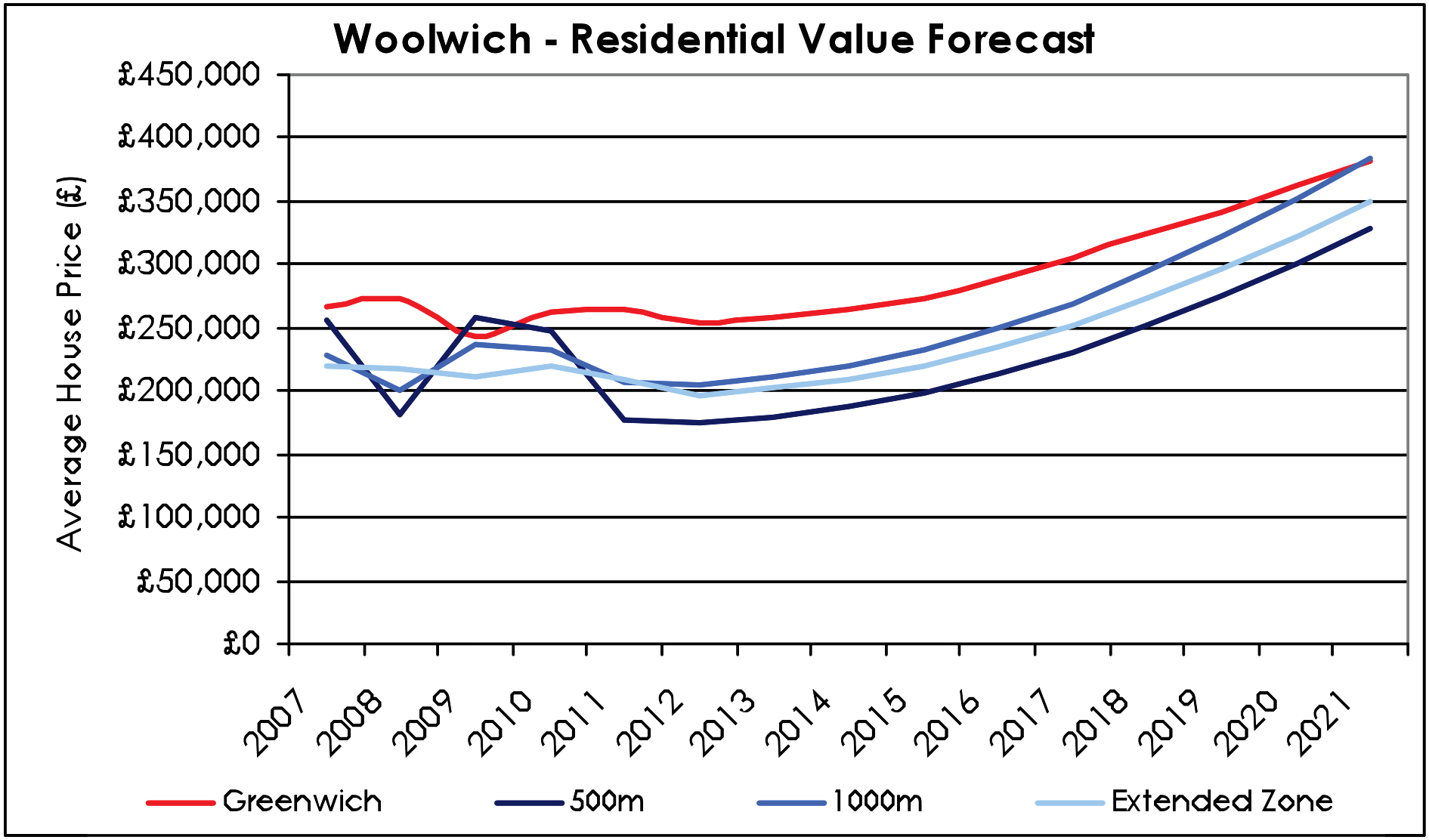

Gidea Park - Residential Value Forecast
Average House Price (£)
£600,000
£500,000
£400,000
£300,000
£200,000
£100,000
£0
2007
2009
2011
2013
2015
2017
2019
2021
Havering
500m
1000m
Extended Zone

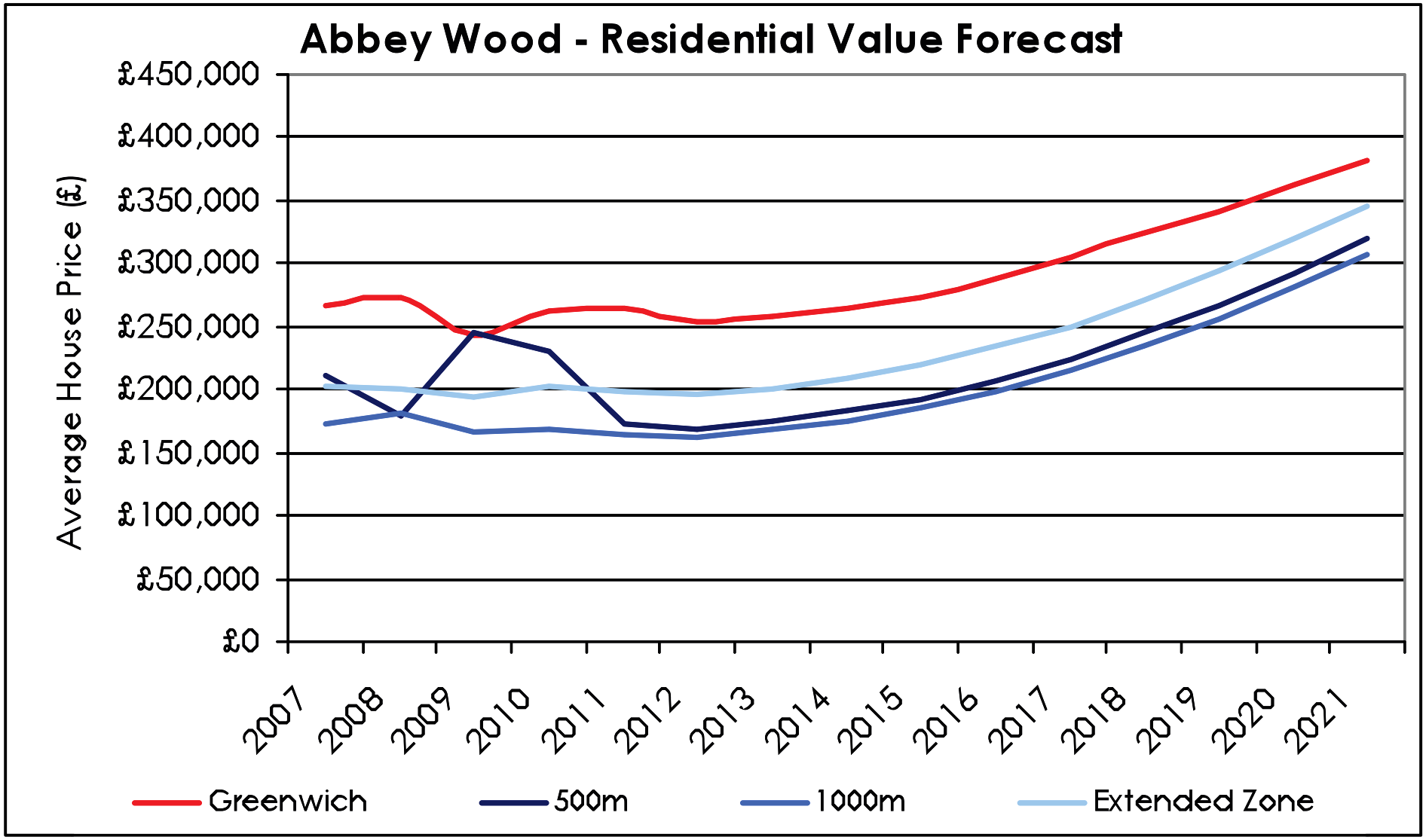

Harold Wood - Residential Value Forecast
Average House Price (£)
£450,000
£400,000
£350,000
£300,000
£250,000
£200,000
£150,000
£100,000
£50,000
£0
2007
2009
2011
2013
2015
2017
2019
2021
Havering
500m
1000m
Extended Zone


Brentwood - Residential Value Forecast
Average House Price (£)
£600,000
£500,000
£400,000
£300,000
£200,000
£100,000
£0
2007
2009
2011
2013
2015
2017
2019
2021
Essex
500m
1000m
Extended Zone


Shenfield - Residential Value Forecast
Average House Price (£)
£1,400,000
£1,200,000
£1,000,000
£800,000
£600,000
£400,000
£200,000
£0
2007
2009
2011
2013
2015
2017
2019
2021
Essex
500m
1000m
Extended Zone

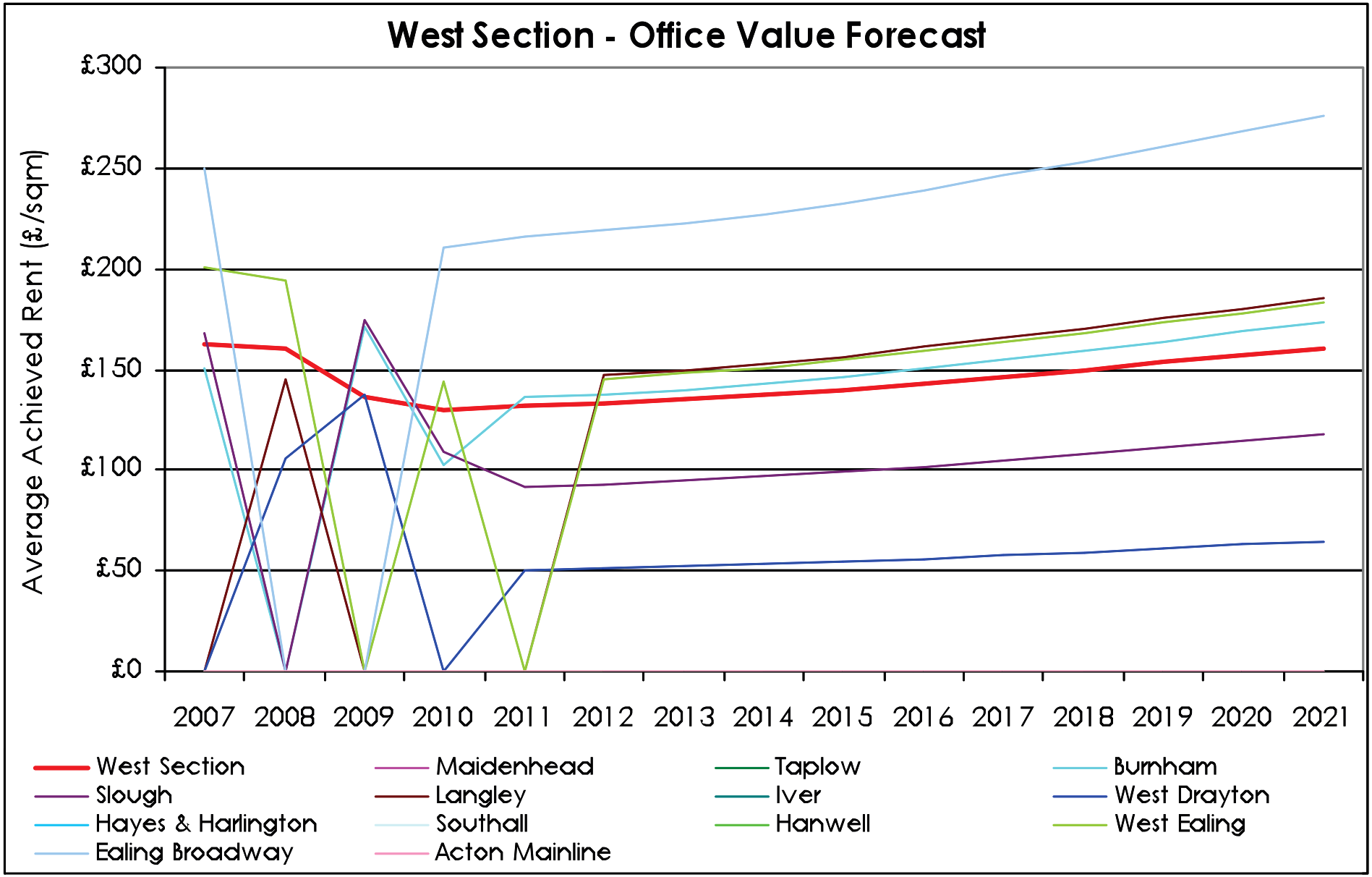

Custom House - Residential Value Forecast
Average House Price (£)
£600,000
£500,000
£400,000
£300,000
£200,000
£100,000
£0
2007
2009
2011
2013
2015
2017
2019
2021
Newham
500m
1000m
Extended Zone

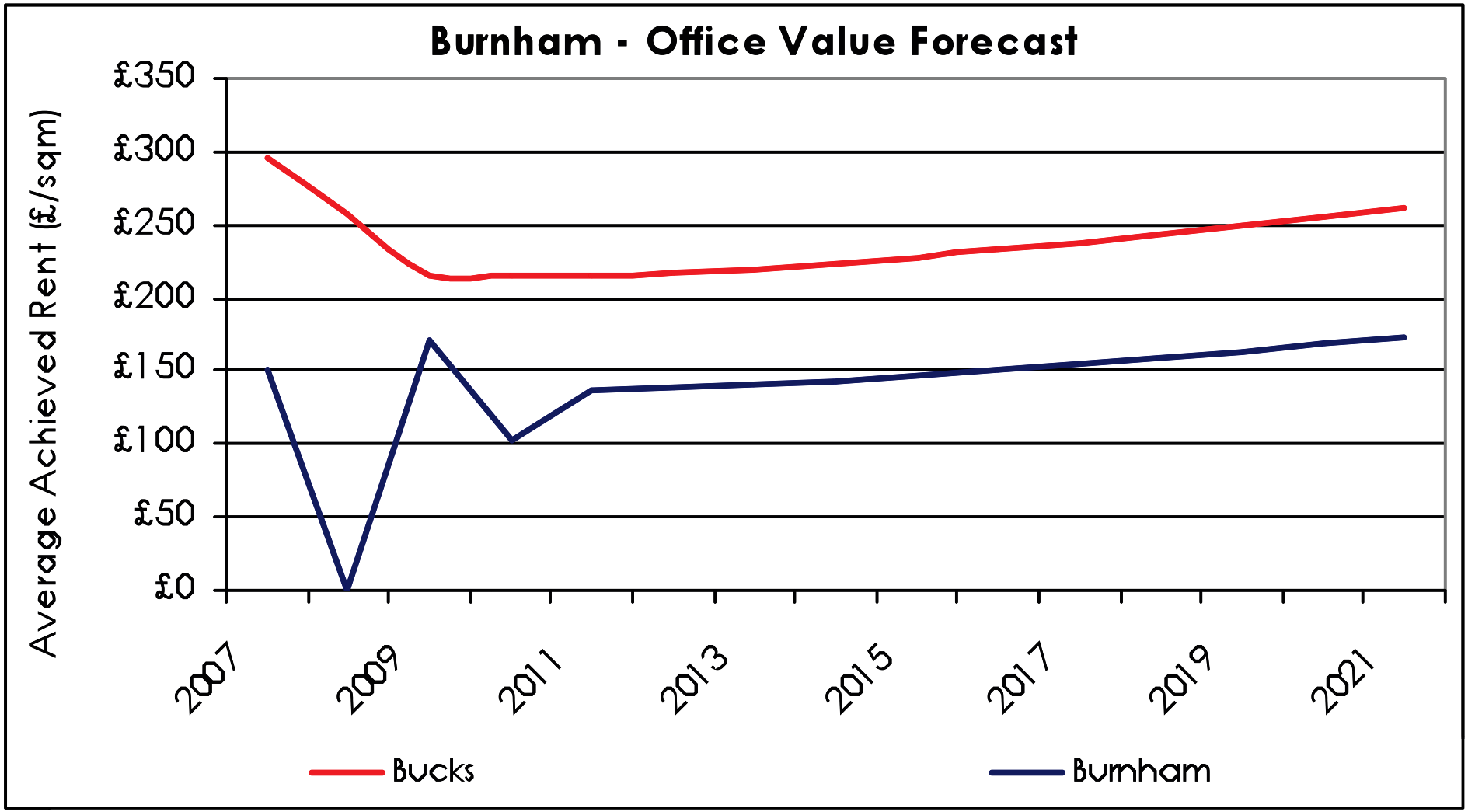

Woolwich - Residential Value Forecast
Average House Price (£)
£450,000
£400,000
£350,000
£300,000
£250,000
£200,000
£150,000
£100,000
£50,000
£0
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
Greenwich
500m
1000m
Extended Zone

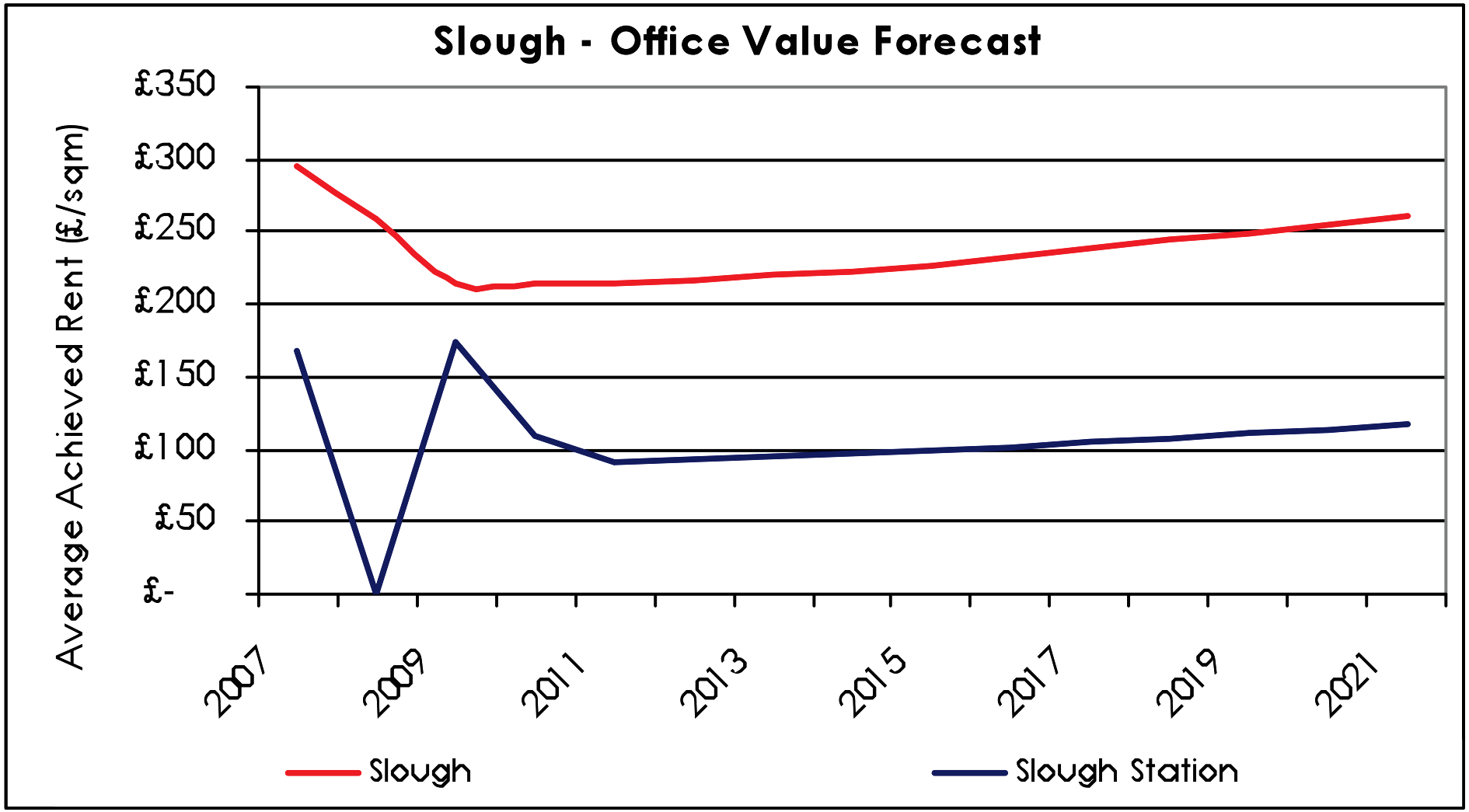

Abbey Wood - Residential Value Forecast
Average House Price (£)
£450,000
£400,000
£350,000
£300,000
£250,000
£200,000
£150,000
£100,000
£50,000
£0
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
Greenwich
500m
1000m
Extended Zone

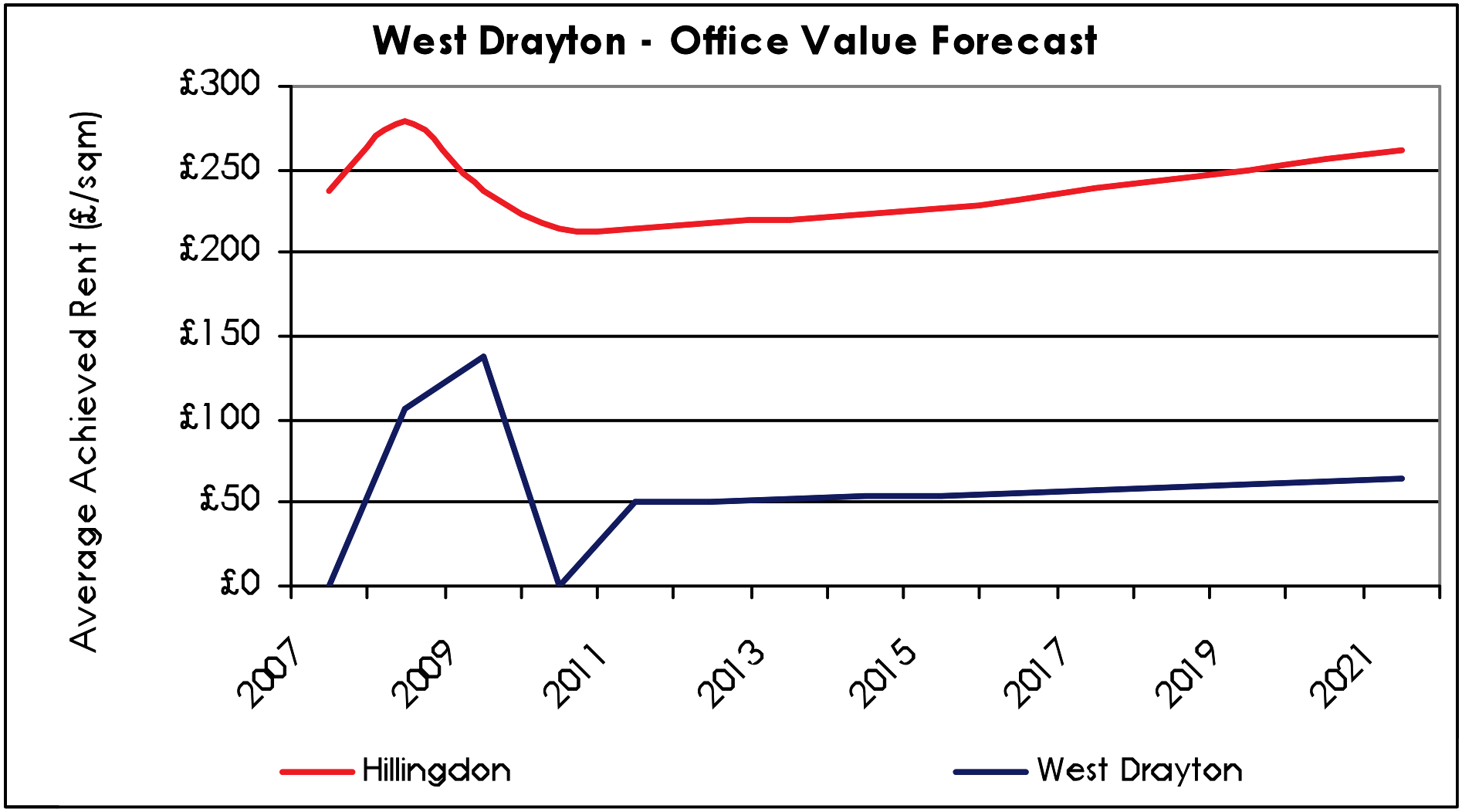
Appendix 4

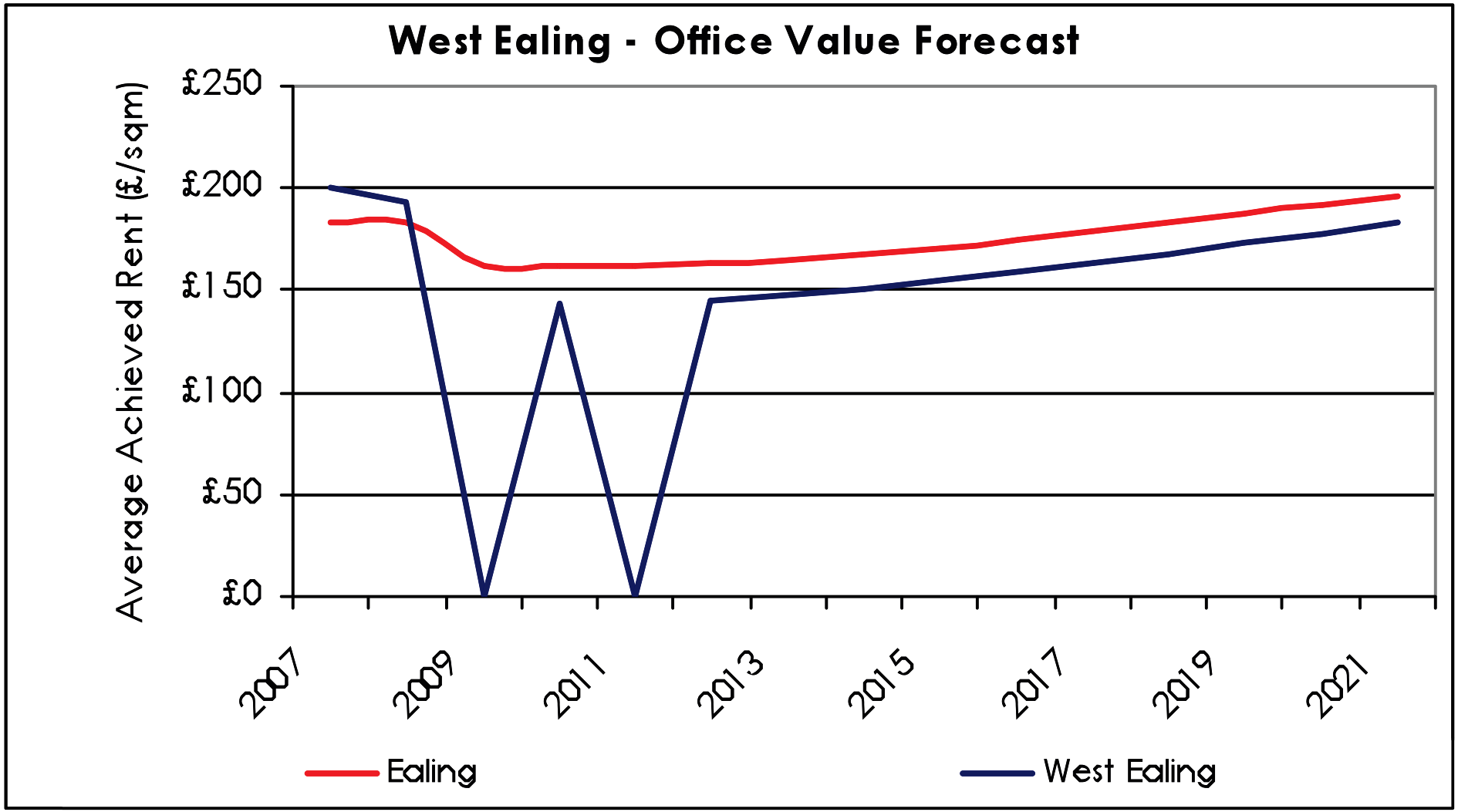
Office Forecasts raphs

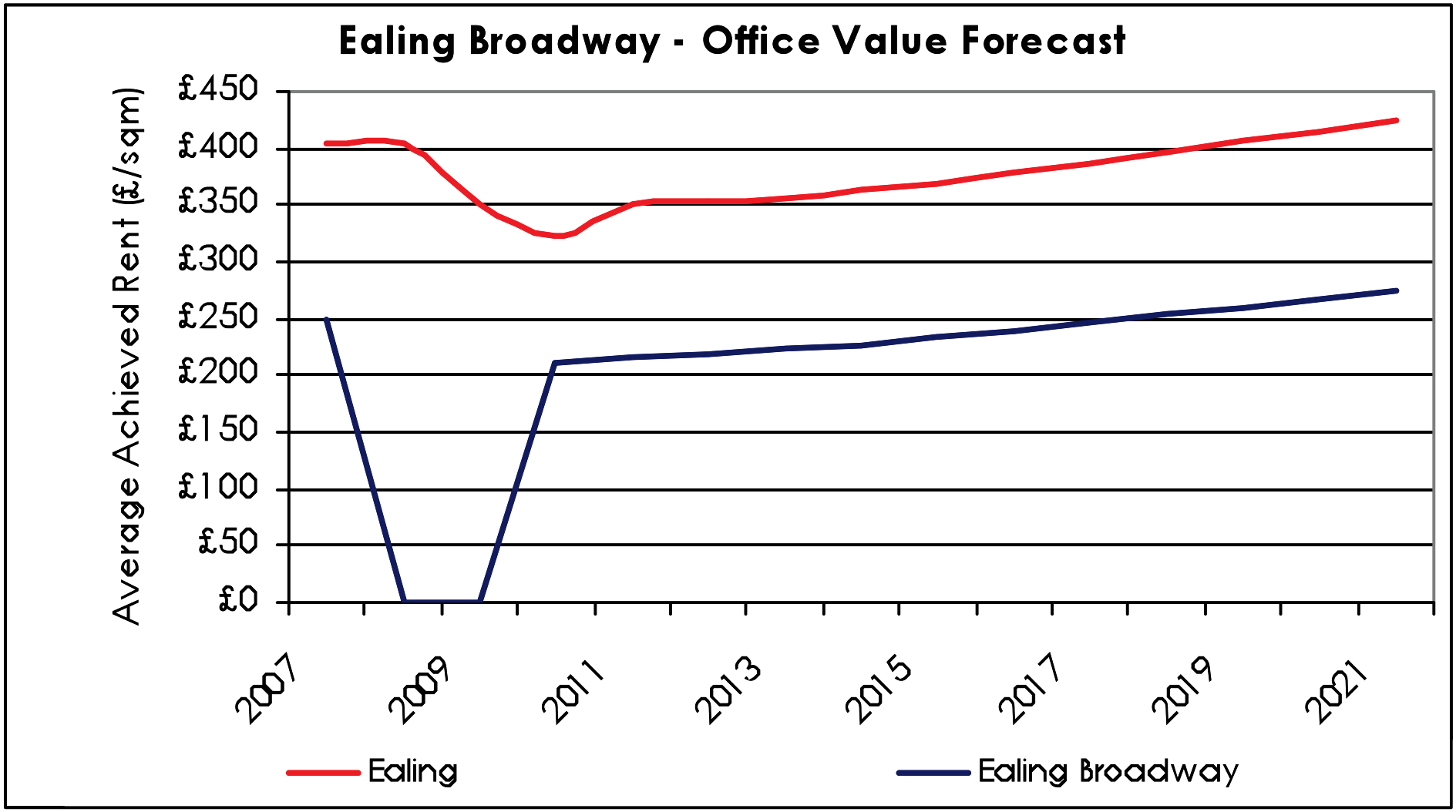

West Section - Office Value Forecast
Average Achieved Rent (£/sqm)
£300
£250
£200
£150
£100
£50
£0
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
West Section
Maidenhead
Taplow
Burnham
Slough
Langley
Iver
West Drayton
Hayes & Harlington
Southall
Hanwell
West Ealing
Ealing Broadway
Acton Mainline

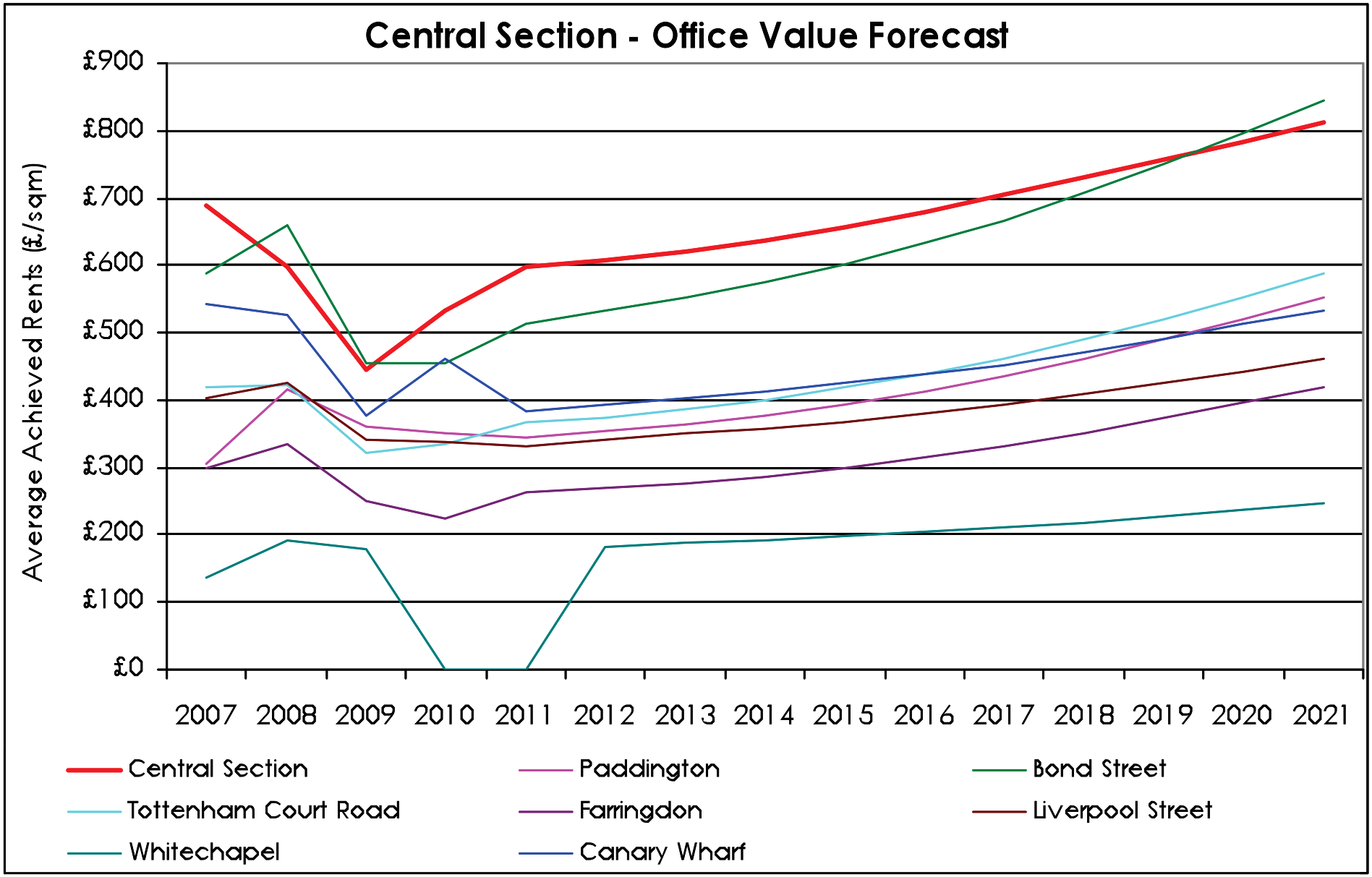

Burnham - Office Value Forecast
Average Achieved Rent (£/sqm)
£350
£300
£250
£200
£150
£100
£50
£0
2007
2009
2011
2013
2015
2017
2019
2021
Bucks
Burnham

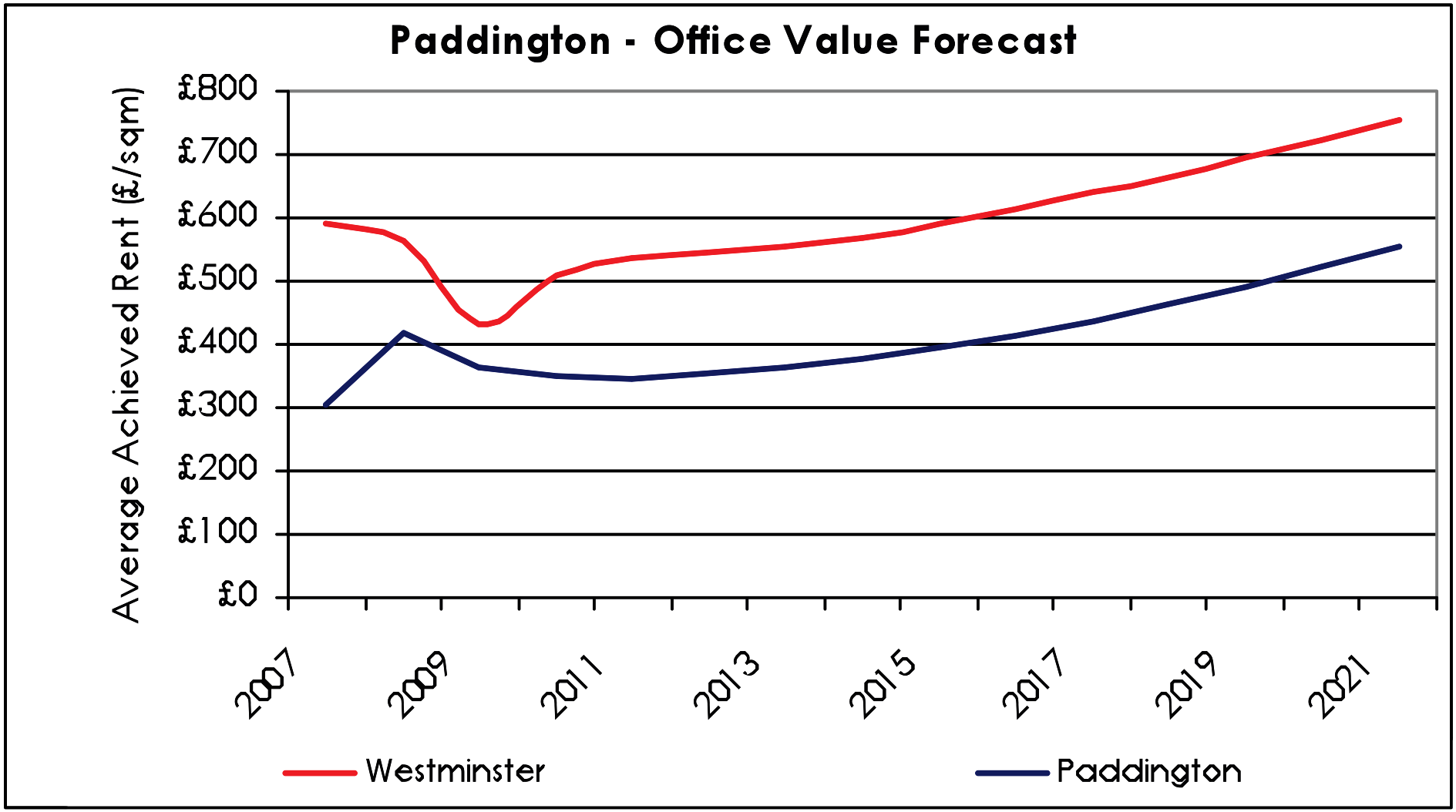

Slough - Office Value Forecast
Average Achieved Rent (£/sqm)
£350
£300
£250
£200
£150
£100
£50
£-
2007
2009
2011
2013
2015
2017
2019
2021
Slough
Slough Station

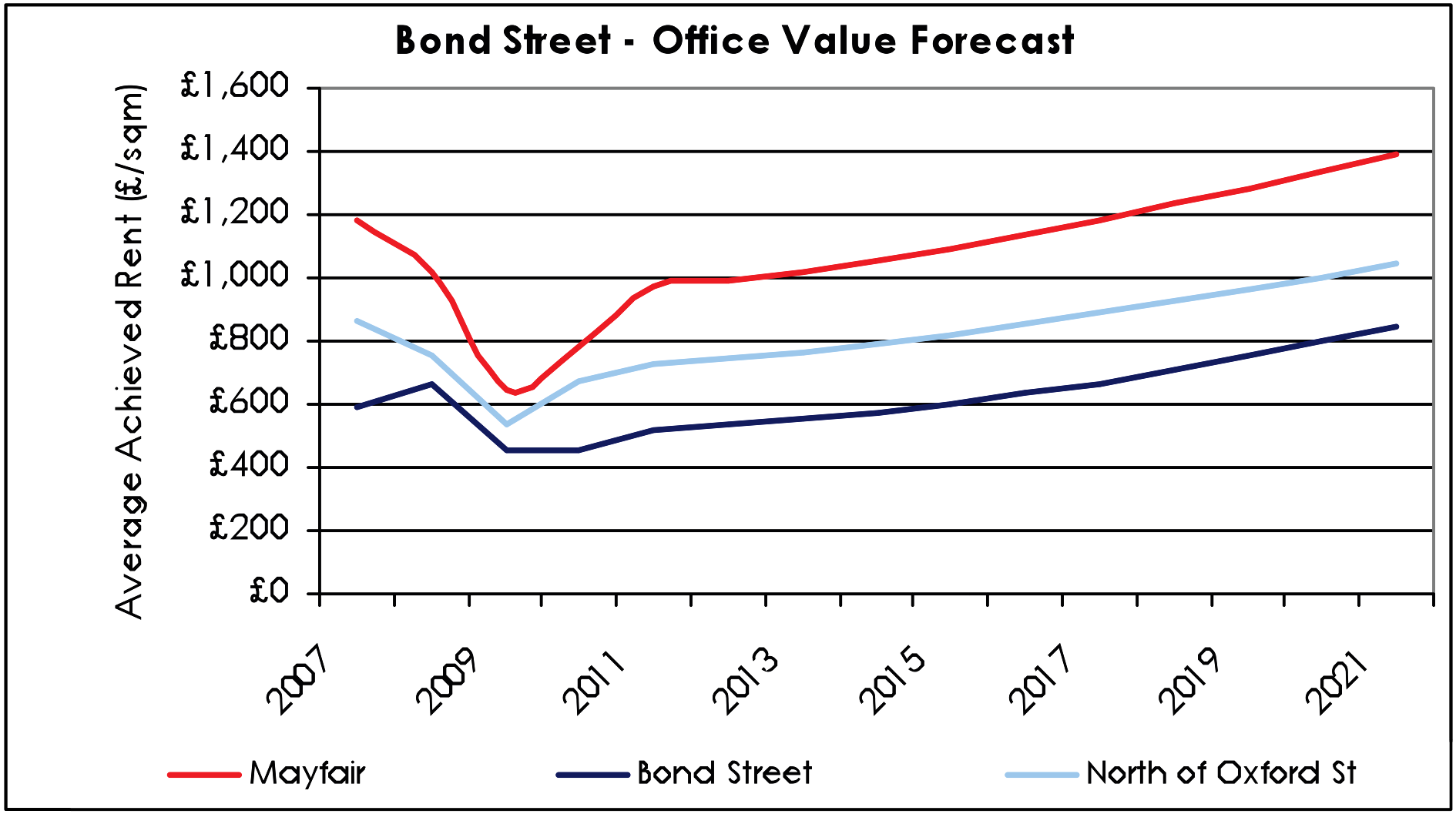

West Drayton - Office Value Forecast
Average Achieved Rent (£/sqm)
£300
£250
£200
£150
£100
£50
£0
2007
2009
2011
2013
2015
2017
2019
2021
Hillingdon
West Drayton

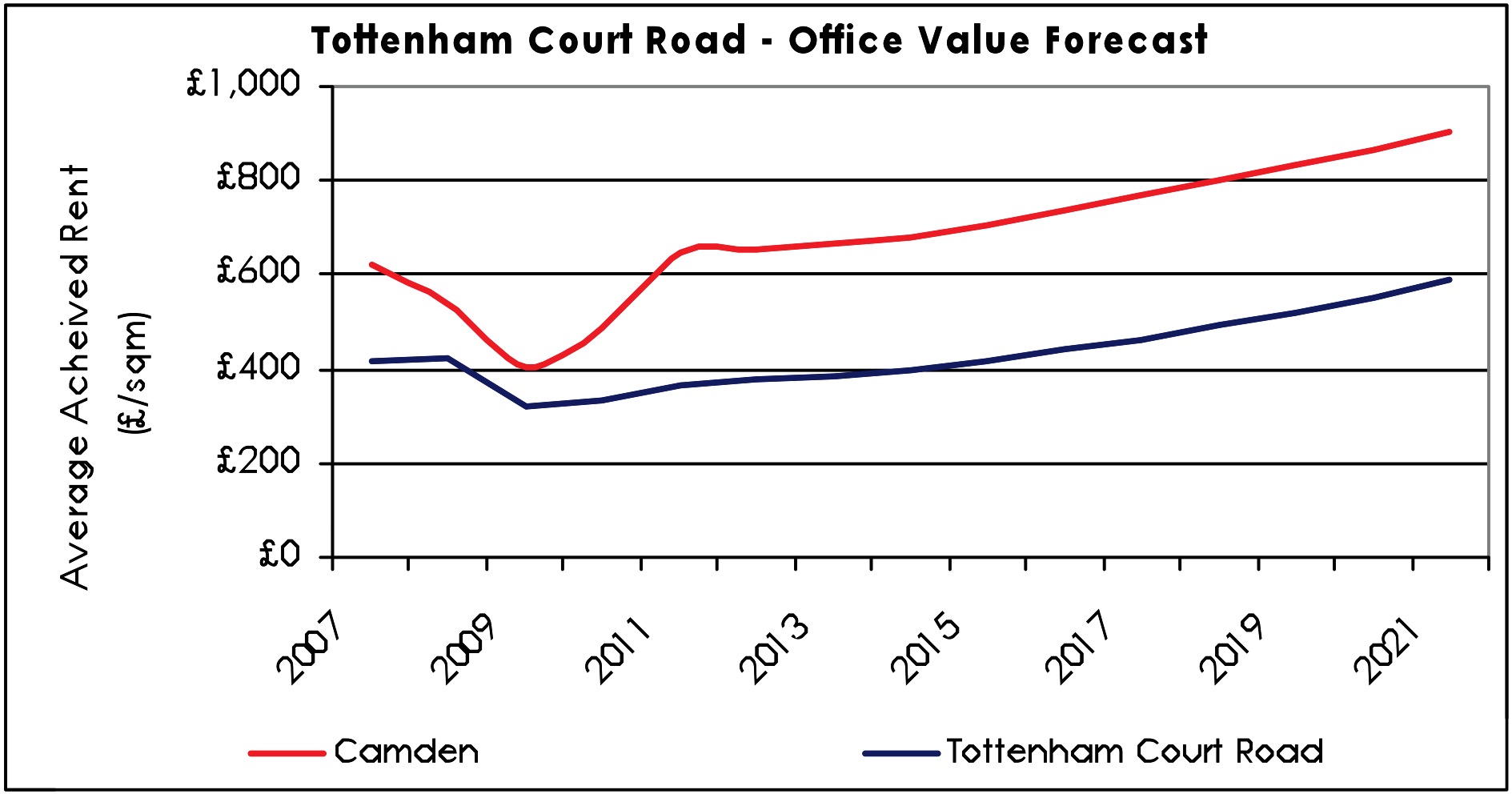

West Ealing - Office Value Forecast
Average Achieved Rent (£/sqm)
£250
£200
£150
£100
£50
£0
2007
2009
2011
2013
2015
2017
2019
2021
Ealing
West Ealing

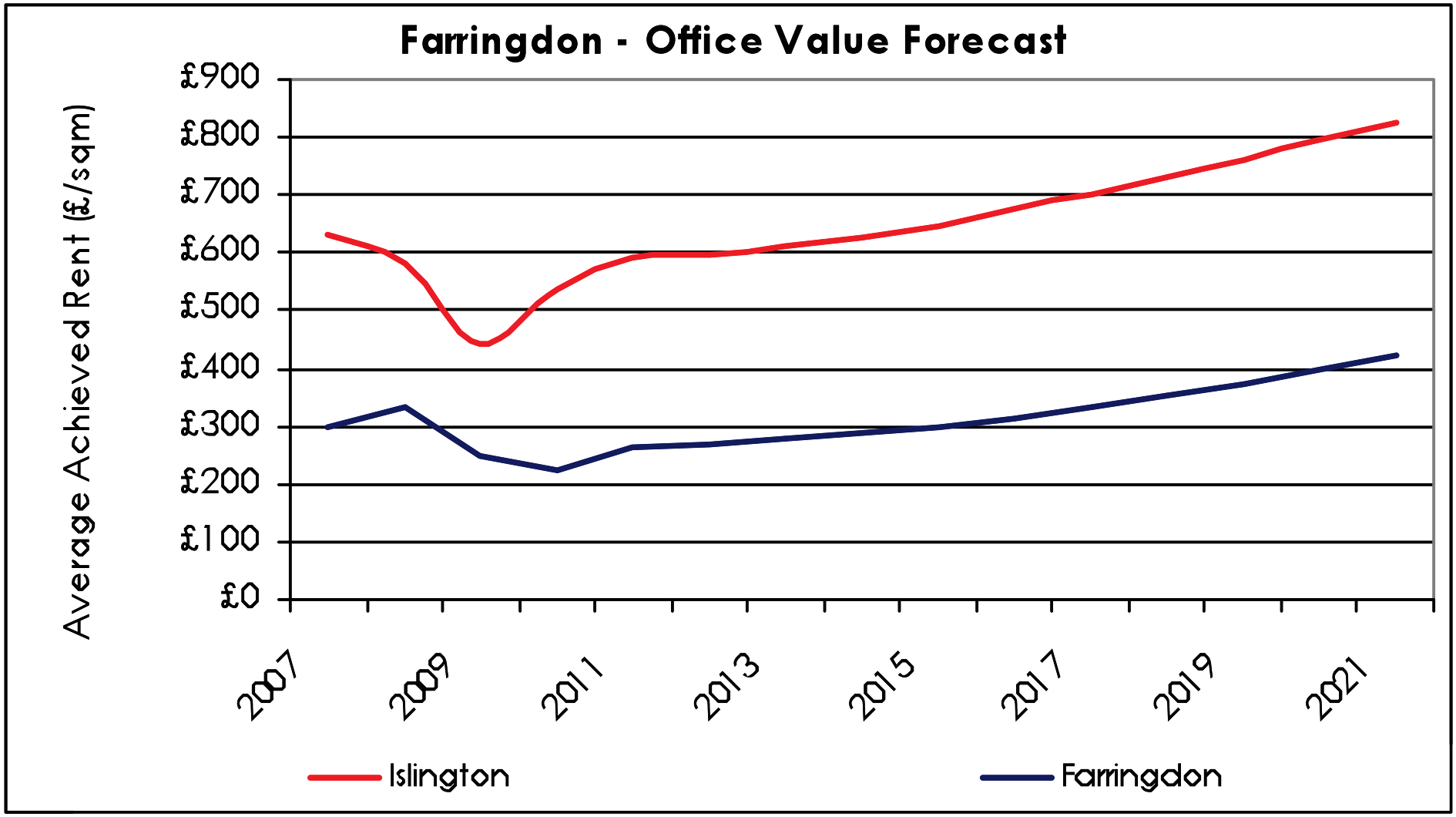

Ealing Broadway - Office Value Forecast
Average Achieved Rent (£/sqm)
£450
£400
£350
£300
£250
£200
£150
£100
£50
£0
2007
2009
2011
2013
2015
2017
2019
2021
Ealing
Ealing Broadway

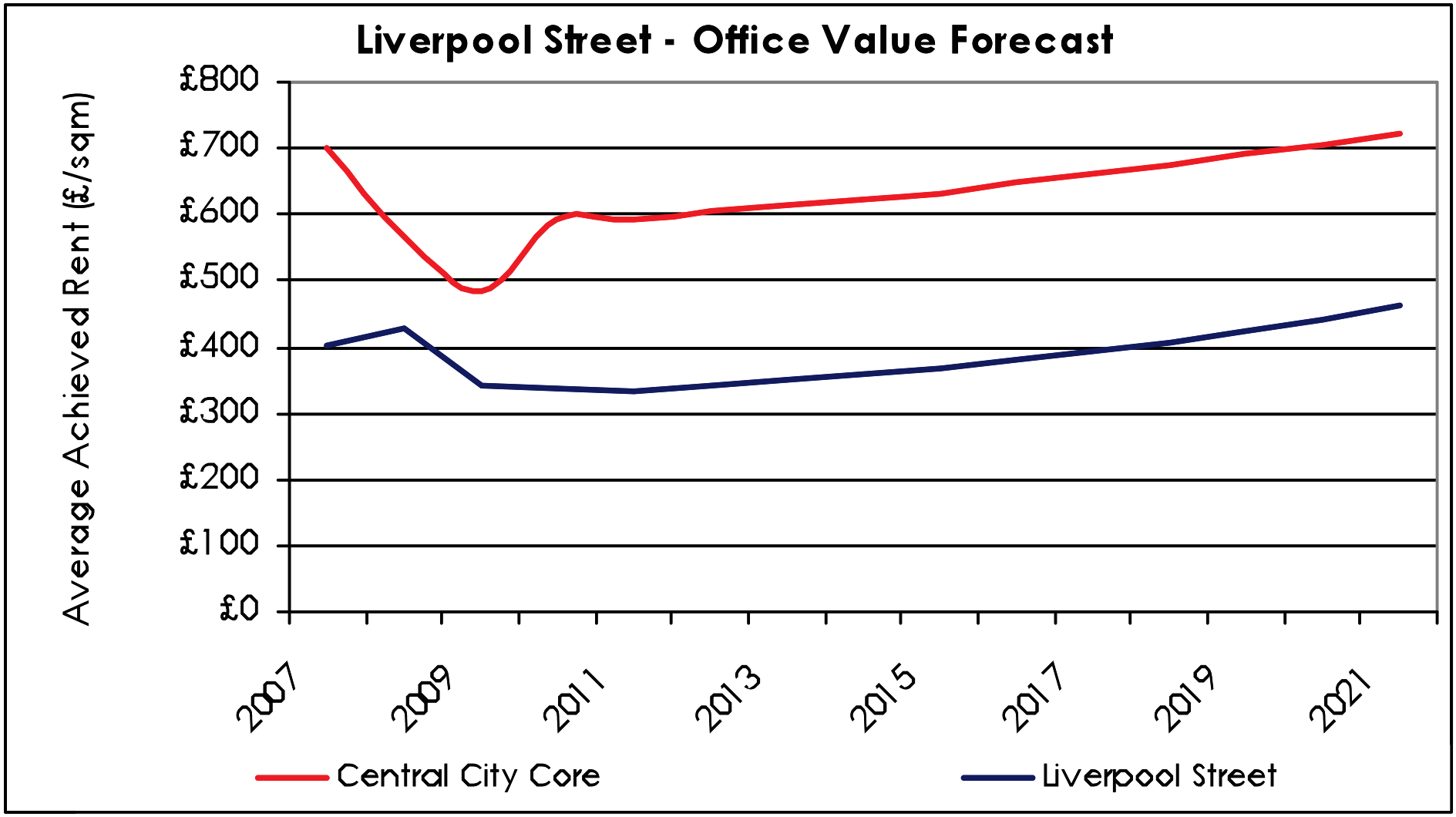

Central Section - Office Value Forecast
Average Achieved Rents (£/sqm)
£900
£800
£700
£600
£500
£400
£300
£200
£100
£0
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
Central Section
Paddington
Bond Street
Tottenham Court Road
Farringdon
Liverpool Street
Whitechapel
Canary Wharf

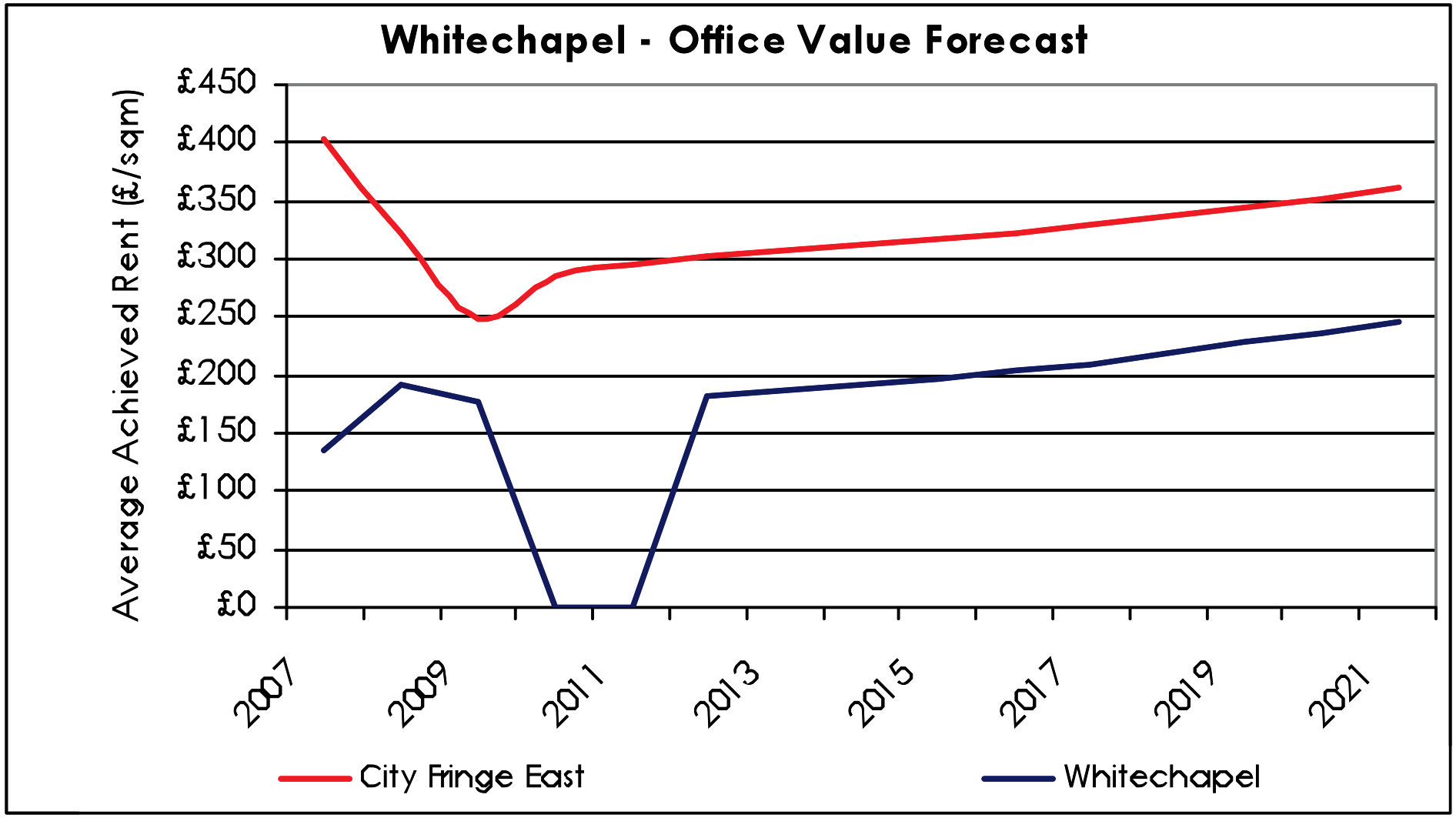

Paddington - Office Value Forecast
Average Achieved Rent (£/sqm)
£800
£700
£600
£500
£400
£300
£200
£100
£0
2007
2009
2011
2013
2015
2017
2019
2021
Westminster
Paddington

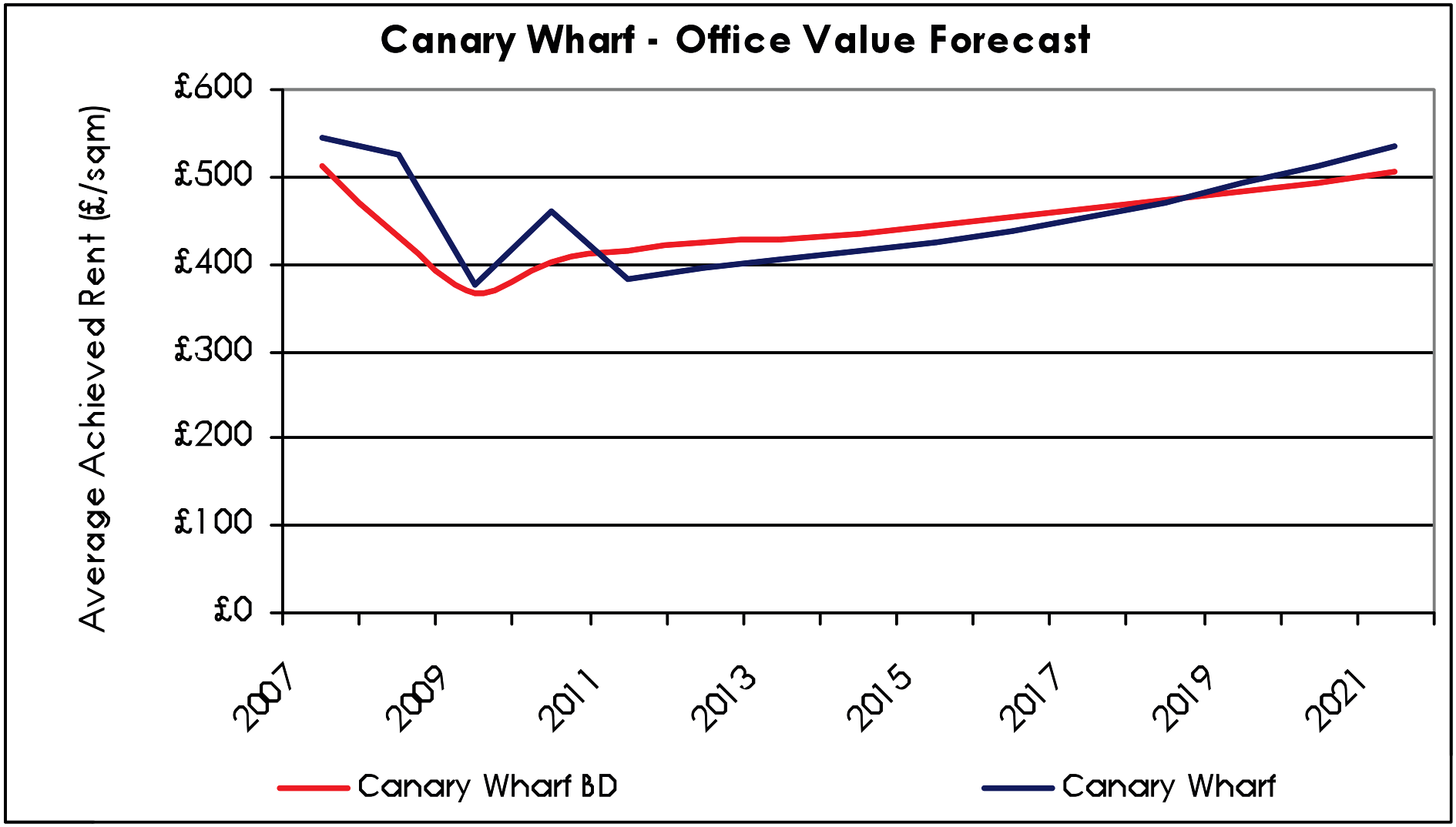

Bond Street - Office Value Forecast
Average Achieved Rent (£/sqm)
£1,600
£1,400
£1,200
£1,000
£800
£600
£400
£200
£0
2007
2009
2011
2013
2015
2017
2019
2021
Mayfair
Bond Street
North of Oxford St

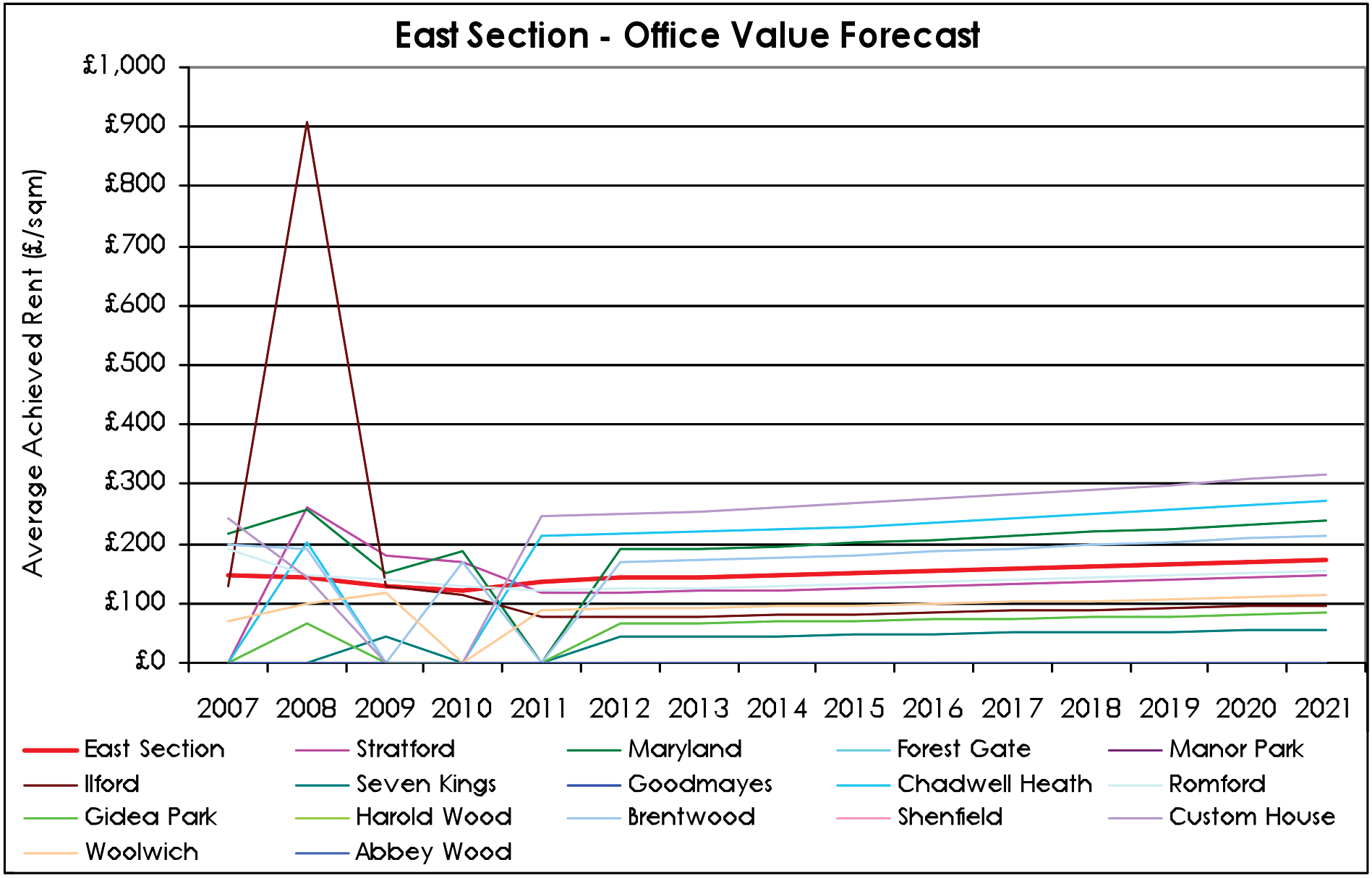

Tottenham Court Road - Office Value Forecast
Average Acheived Rent
(£/sqm)
£1,000
£800
£600
£400
£200
£0
2007
2009
2011
2013
2015
2017
2019
2021
Camden
Tottenham Court Road

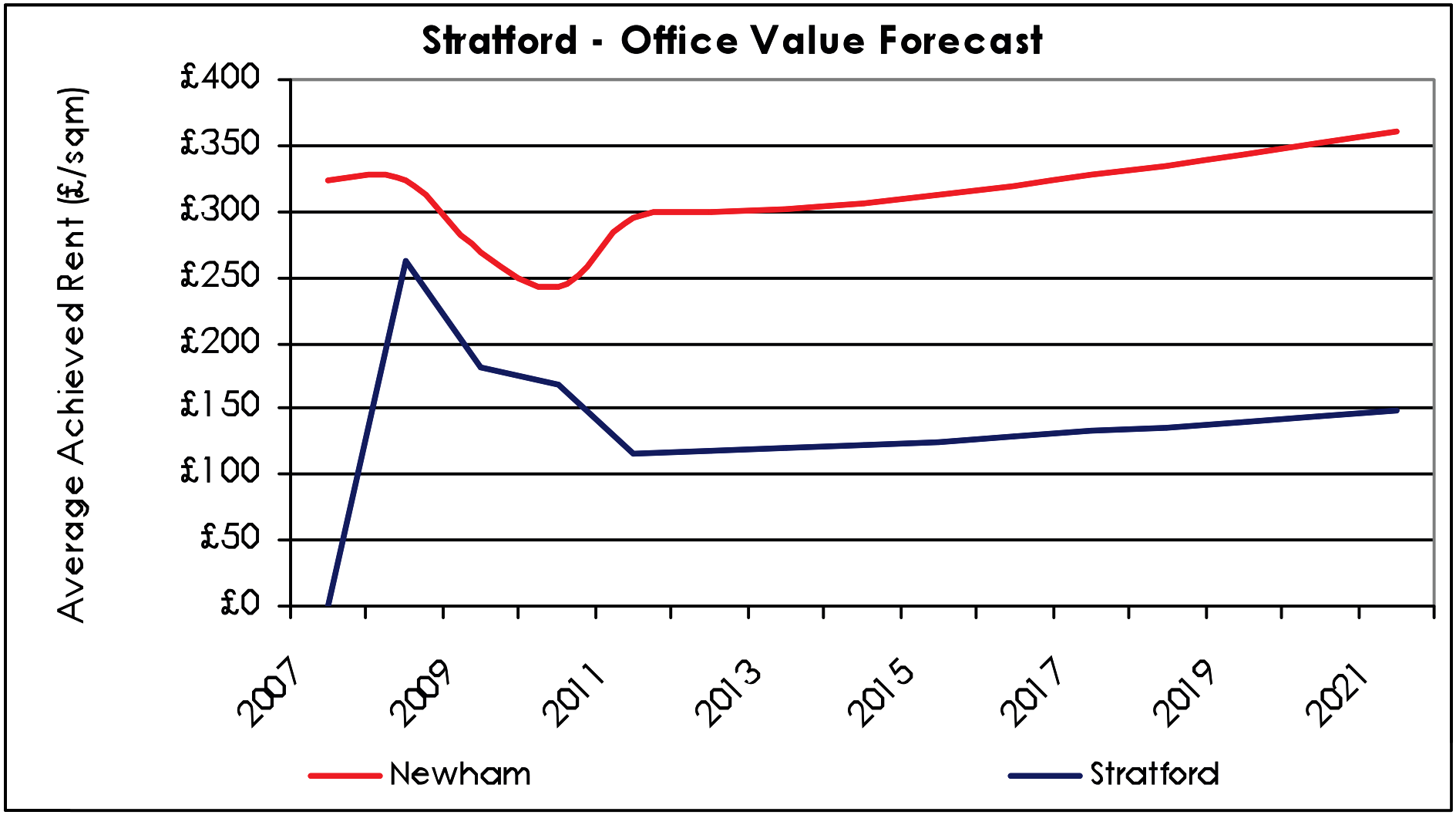

Farringdon - Office Value Forecast
Average Achieved Rent (£/sqm)
£900
£800
£700
£600
£500
£400
£300
£200
£100
£0
2007
2009
2011
2013
2015
2017
2019
2021
Islington
Farringdon

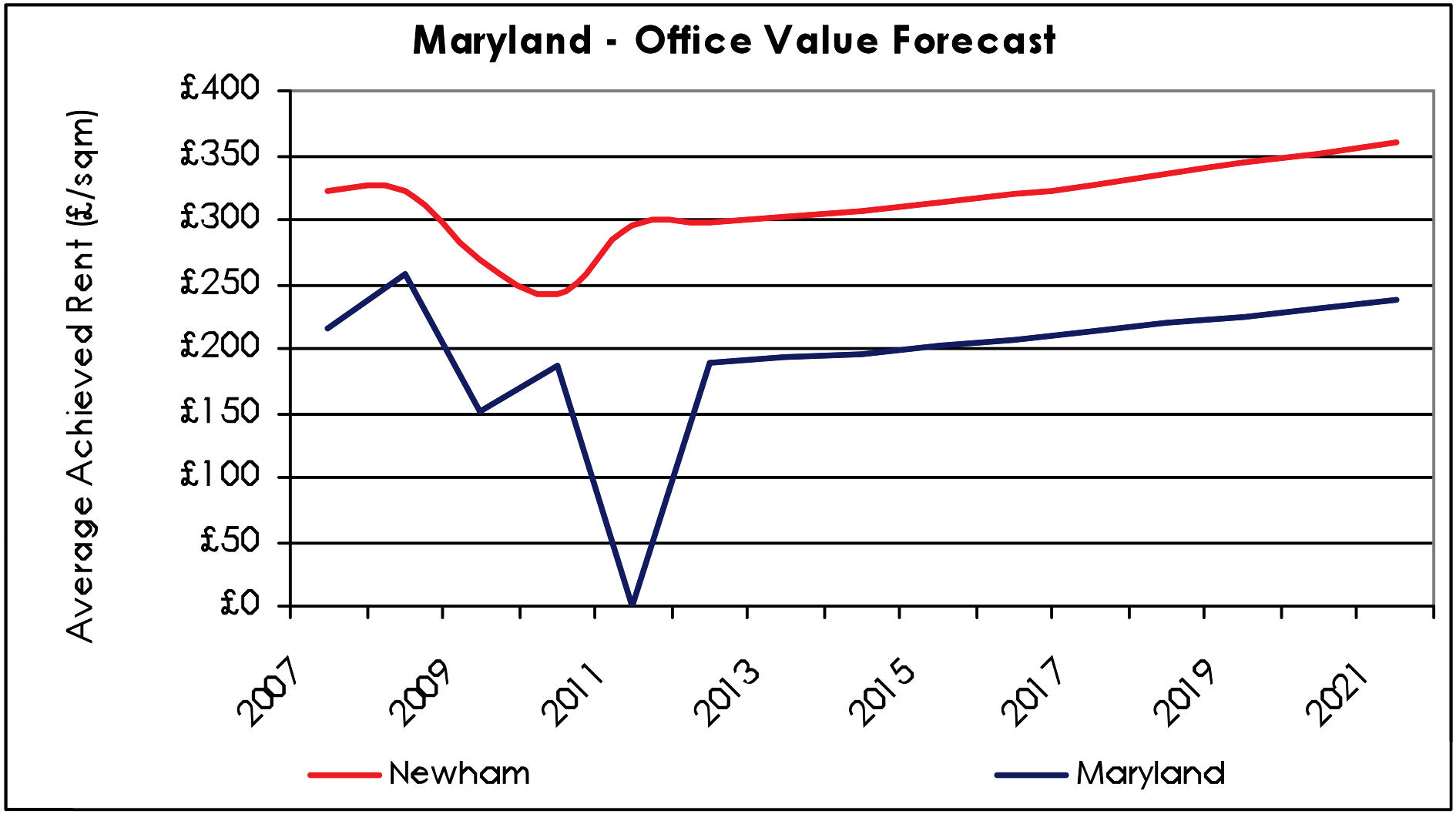

Liverpool Street - Office Value Forecast
Average Achieved Rent (£/sqm)
£800
£700
£600
£500
£400
£300
£200
£100
£0
2007
2009
2011
2013
2015
2017
2019
2021
Central City Core
Liverpool Street

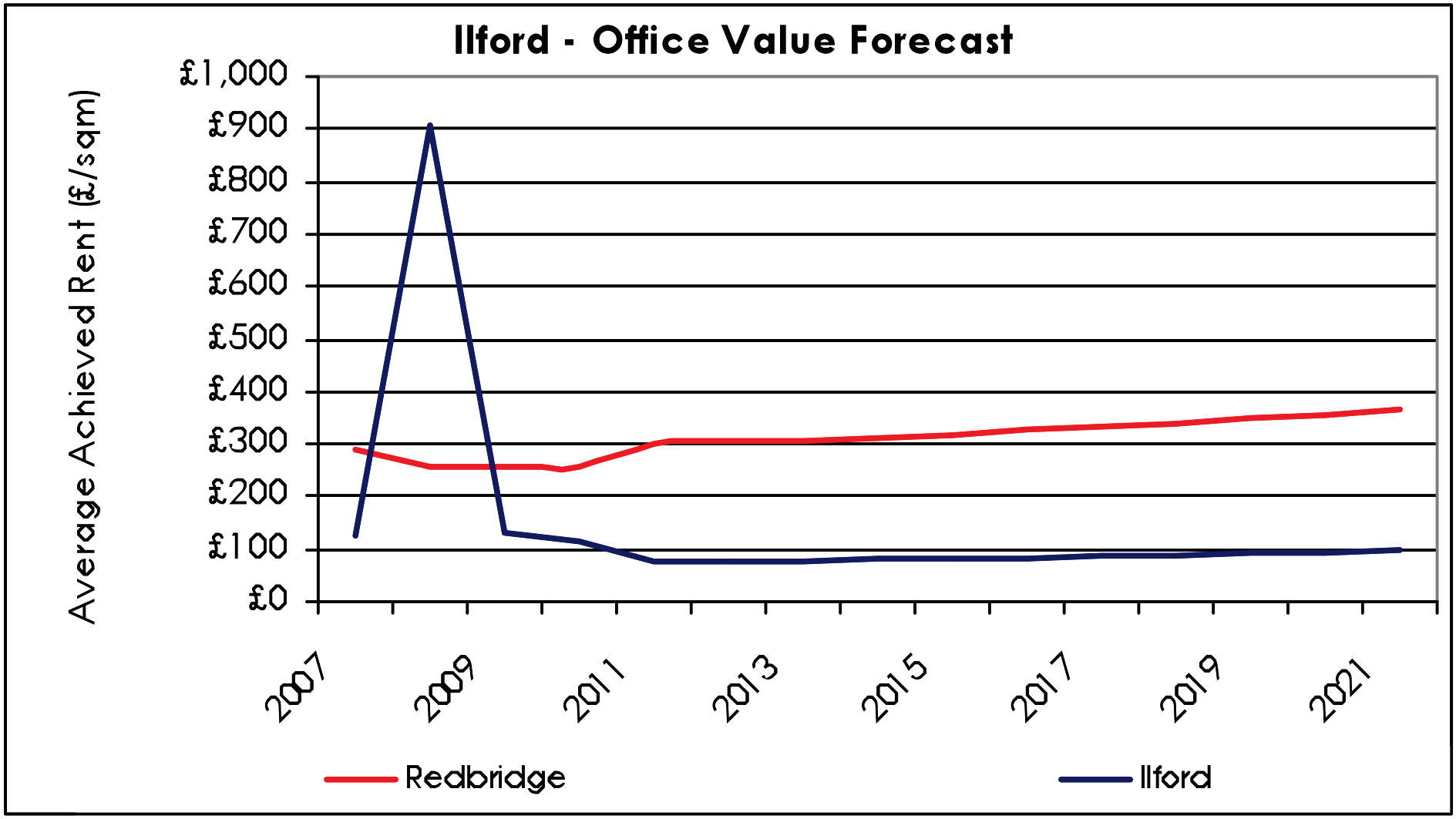

Whitechapel - Office Value Forecast
Average Achieved Rent (£/sqm)
£450
£400
£350
£300
£250
£200
£150
£100
£50
£0
2007
2009
2011
2013
2015
2017
2019
2021
City Fringe East
Whitechapel

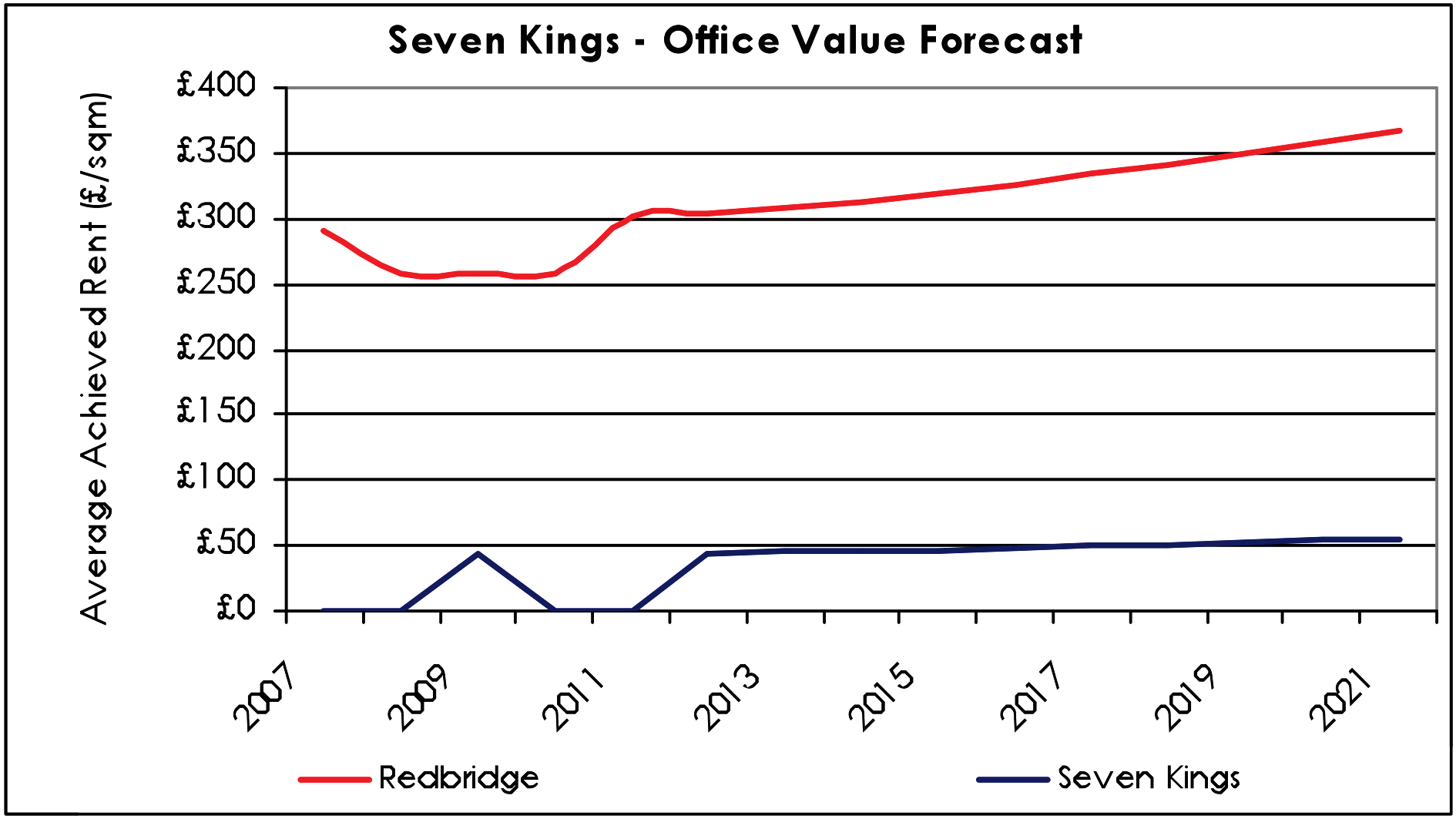

Canary Wharf - Office Value Forecast
Average Achieved Rent (£/sqm)
£600
£500
£400
£300
£200
£100
£0
2007
2009
2011
2013
2015
2017
2019
2021
Canary Wharf BD
Canary Wharf

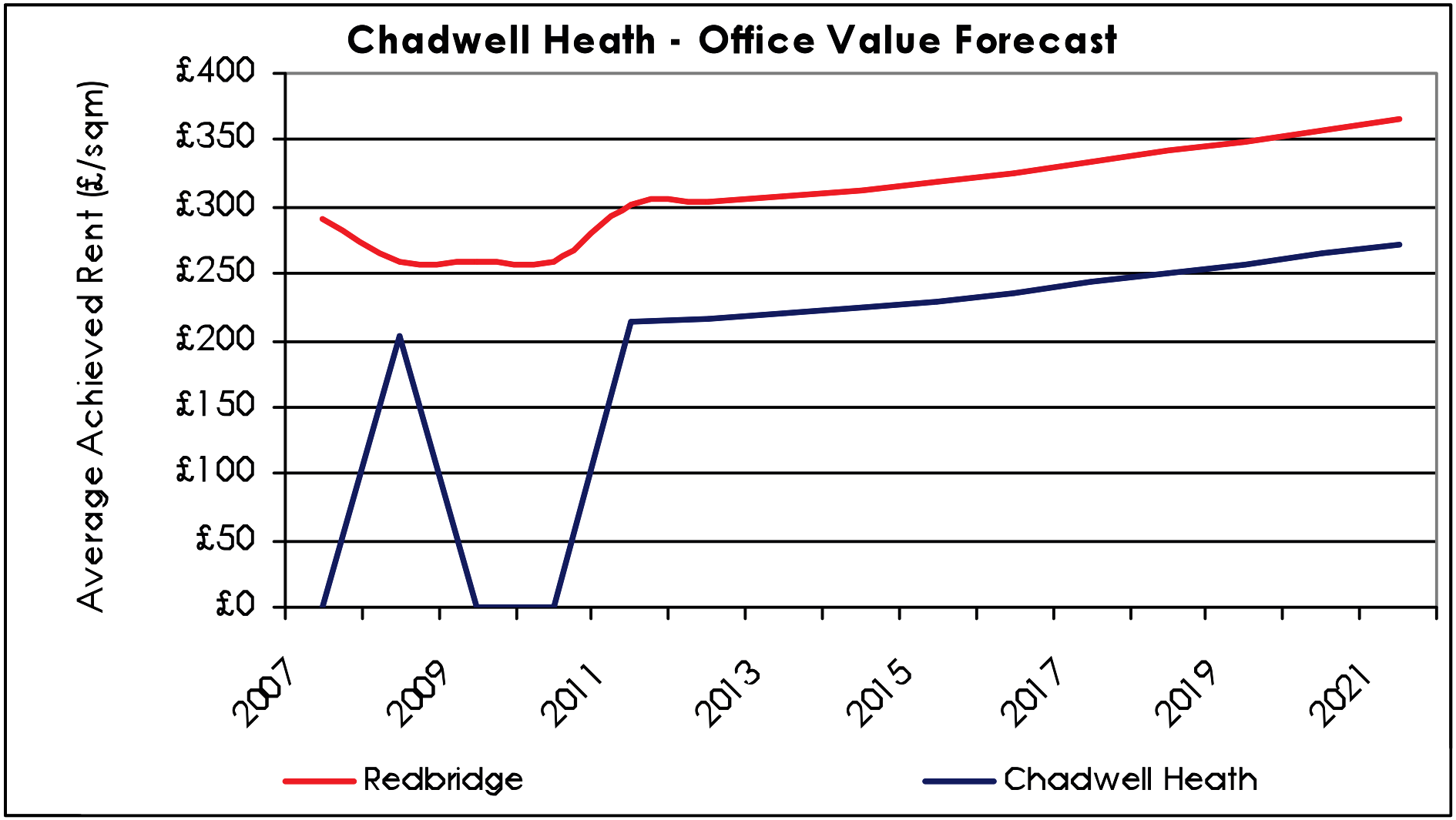

East Section - Office Value Forecast
Average Achieved Rent (£/sqm)
£1,000
£900
£800
£700
£600
£500
£400
£300
£200
£100
£0
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
East Section
Stratford
Maryland
Forest Gate
Manor Park
Ilford
Seven Kings
Goodmayes
Chadwell Heath
Romford
Gidea Park
Harold Wood
Brentwood
Shenfield
Custom House
Woolwich
Abbey Wood

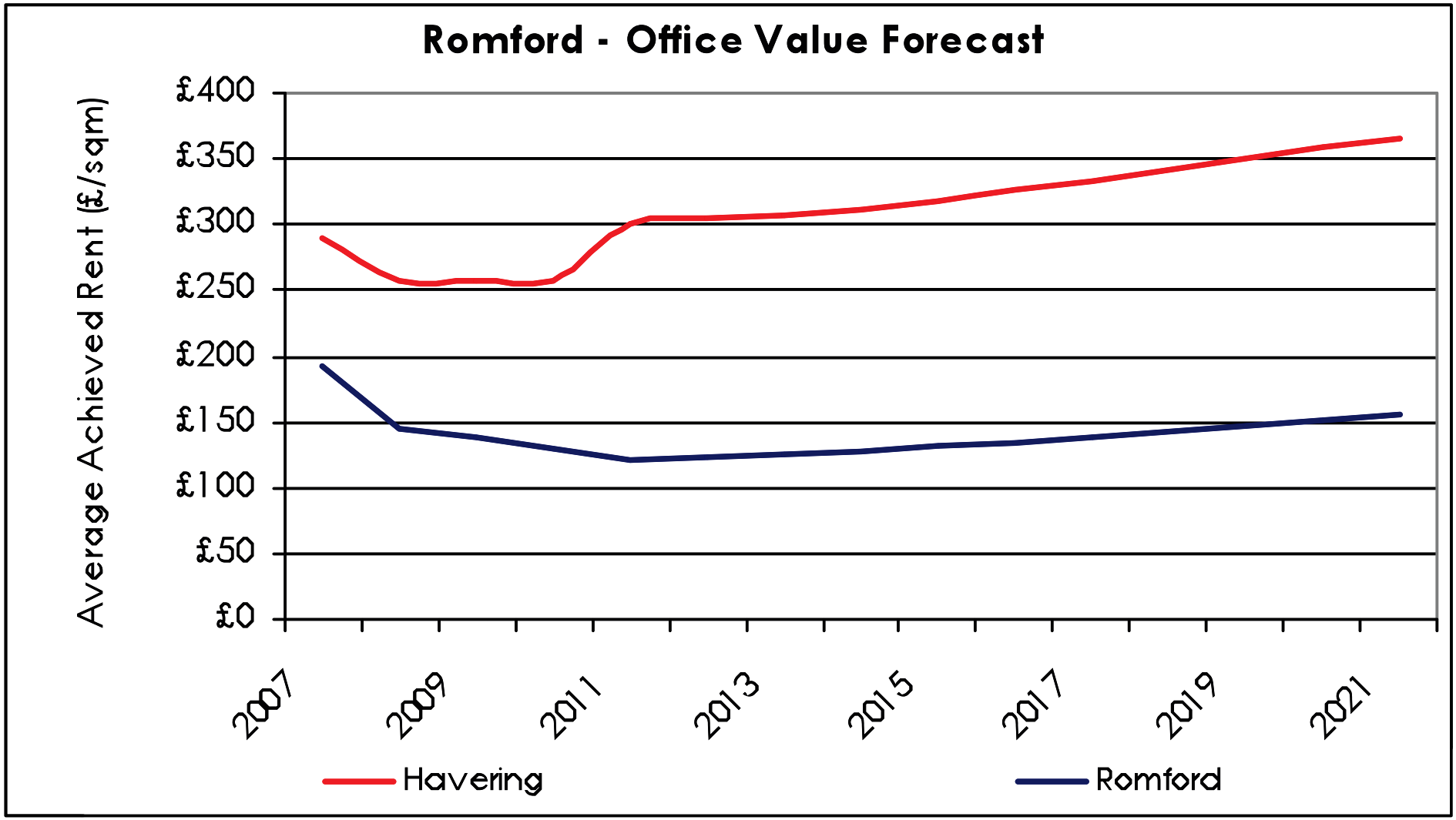

Stratford - Office Value Forecast
Average Achieved Rent (£/sqm)
£400
£350
£300
£250
£200
£150
£100
£50
£0
2007
2009
2011
2013
2015
2017
2019
2021
Newham
Stratford

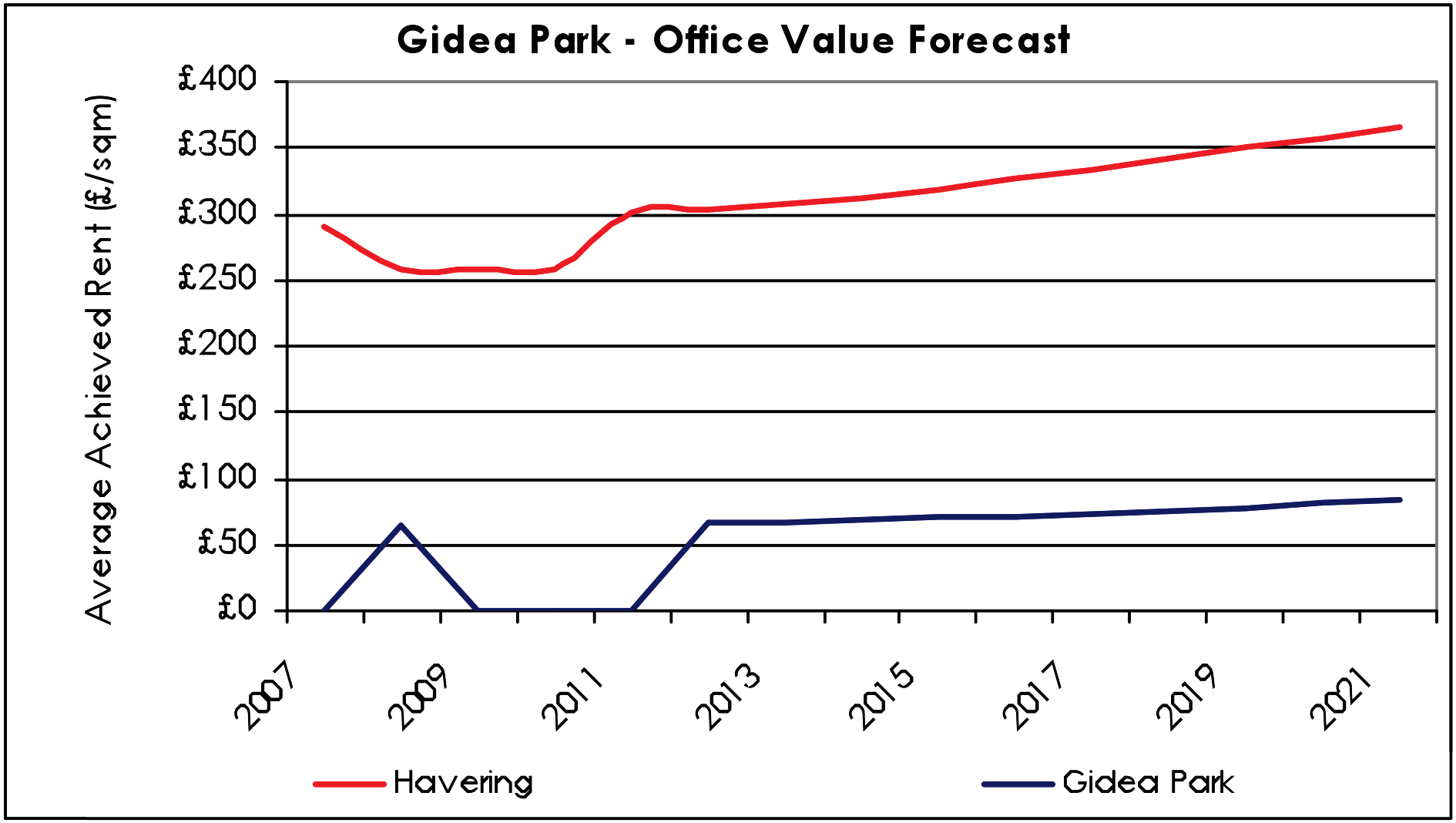

Maryland - Office Value Forecast
Average Achieved Rent (£/sqm)
£400
£350
£300
£250
£200
£150
£100
£50
£0
2007
2009
2011
2013
2015
2017
2019
2021
Newham
Maryland

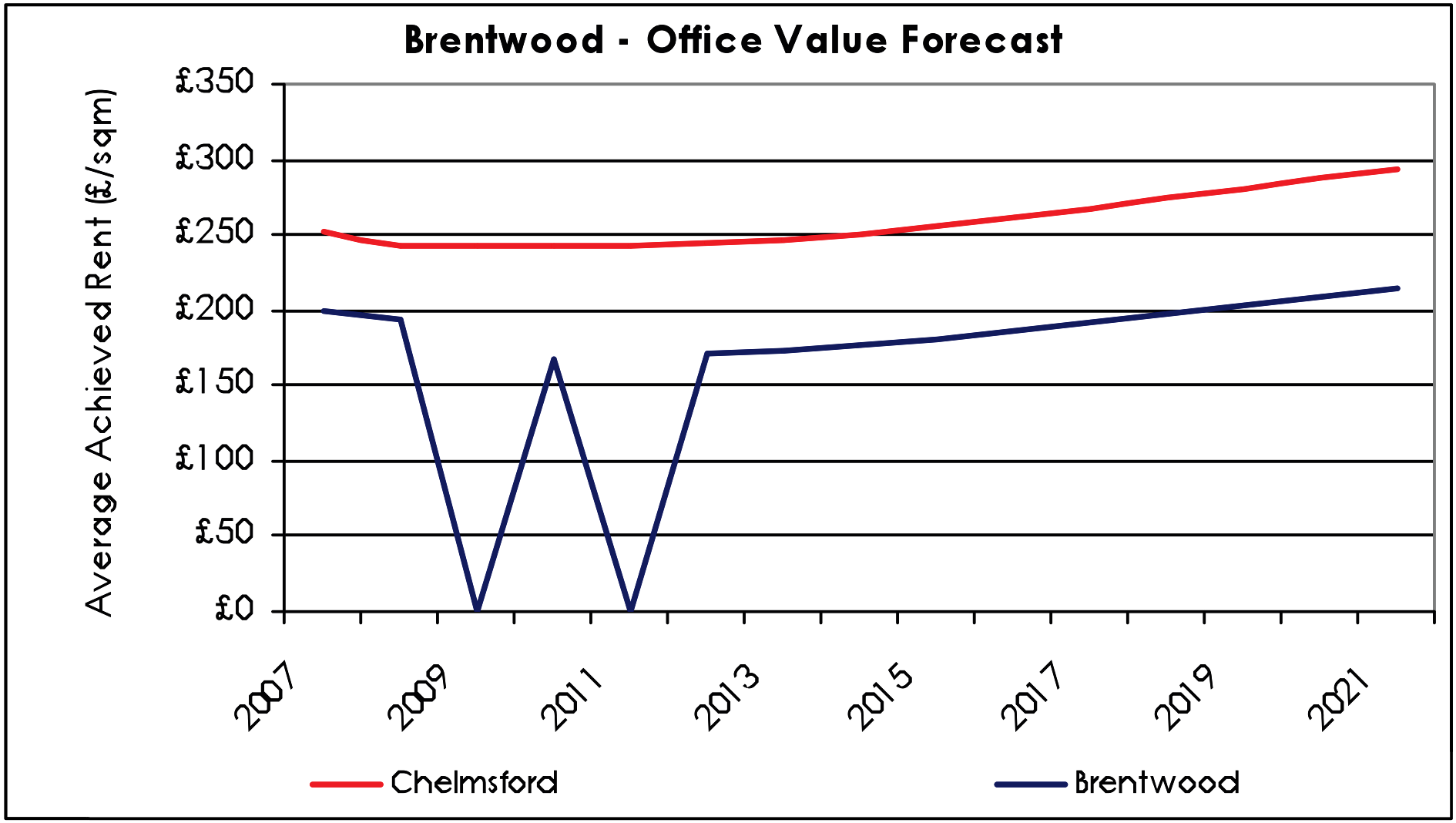

Ilford - Office Value Forecast
Average Achieved Rent (£/sqm)
£1,000
£900
£800
£700
£600
£500
£400
£300
£200
£100
£0
2007
2009
2011
2013
2015
2017
2019
2021
Redbridge
Ilford

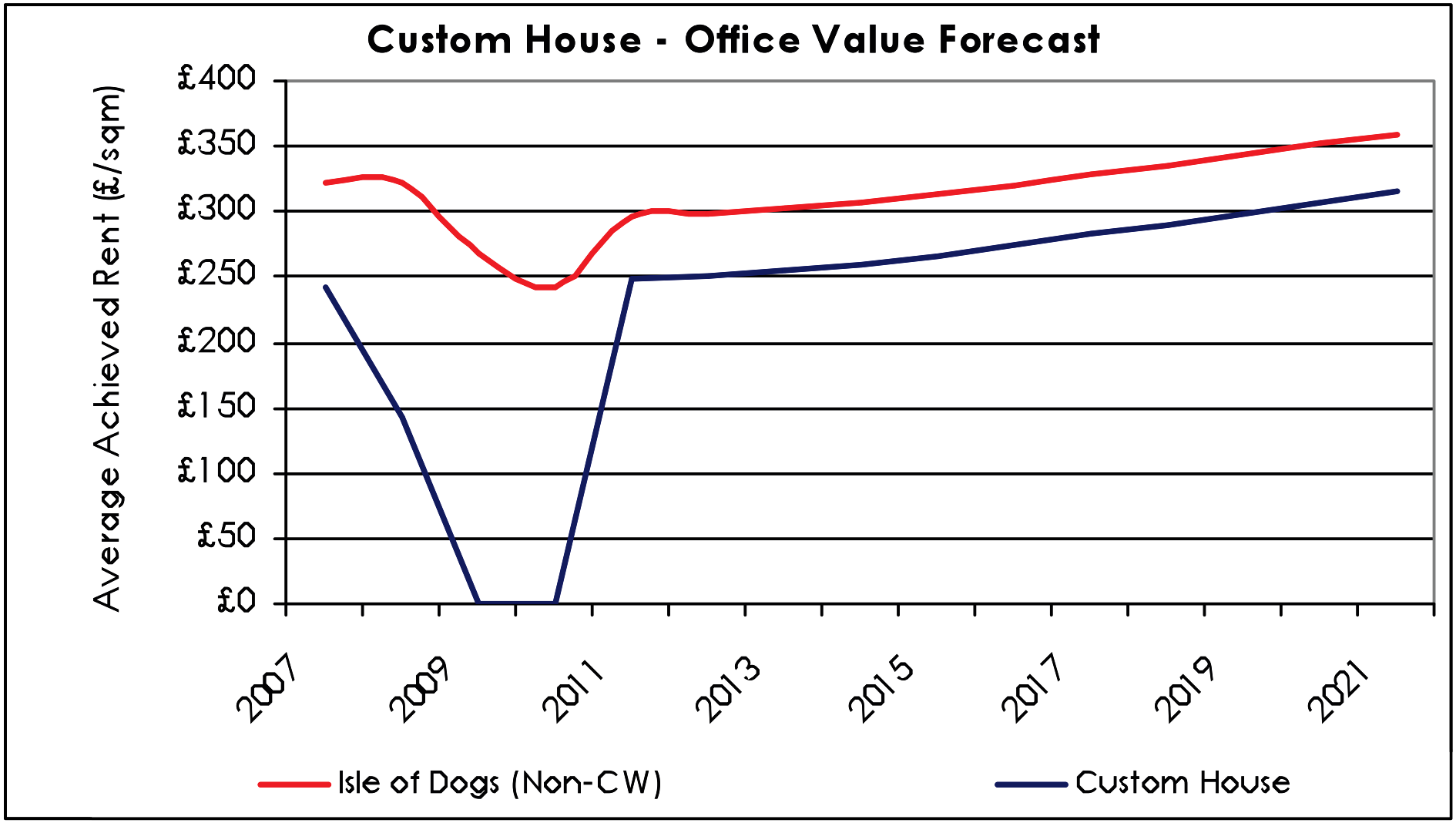

Seven Kings - Office Value Forecast
Average Achieved Rent (£/sqm)
£400
£350
£300
£250
£200
£150
£100
£50
£0
2007
2009
2011
2013
2015
2017
2019
2021
Redbridge
Seven Kings

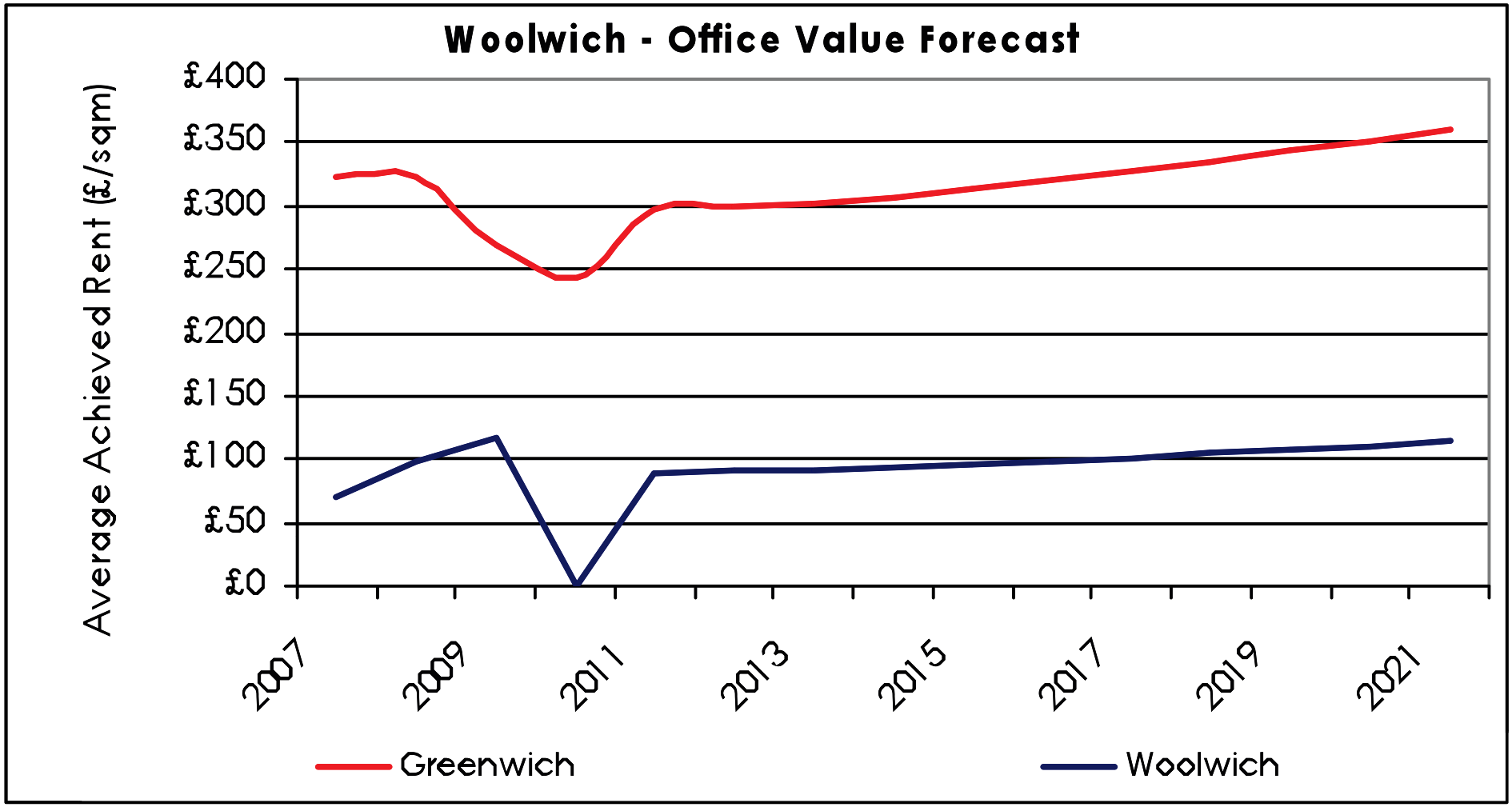

Chadwell Heath - Office Value Forecast
Average Achieved Rent (£/sqm)
£400
£350
£300
£250
£200
£150
£100
£50
£0
2007
2009
2011
2013
2015
2017
2019
2021
Redbridge
Chadwell Heath


Romford - Office Value Forecast
Average Achieved Rent (£/sqm)
£400
£350
£300
£250
£200
£150
£100
£50
£0
2007
2009
2011
2013
2015
2017
2019
2021
Havering
Romford


Gidea Park - Office Value Forecast
Average Achieved Rent (£/sqm)
£400
£350
£300
£250
£200
£150
£100
£50
£0
2007
2009
2011
2013
2015
2017
2019
2021
Havering
Gidea Park

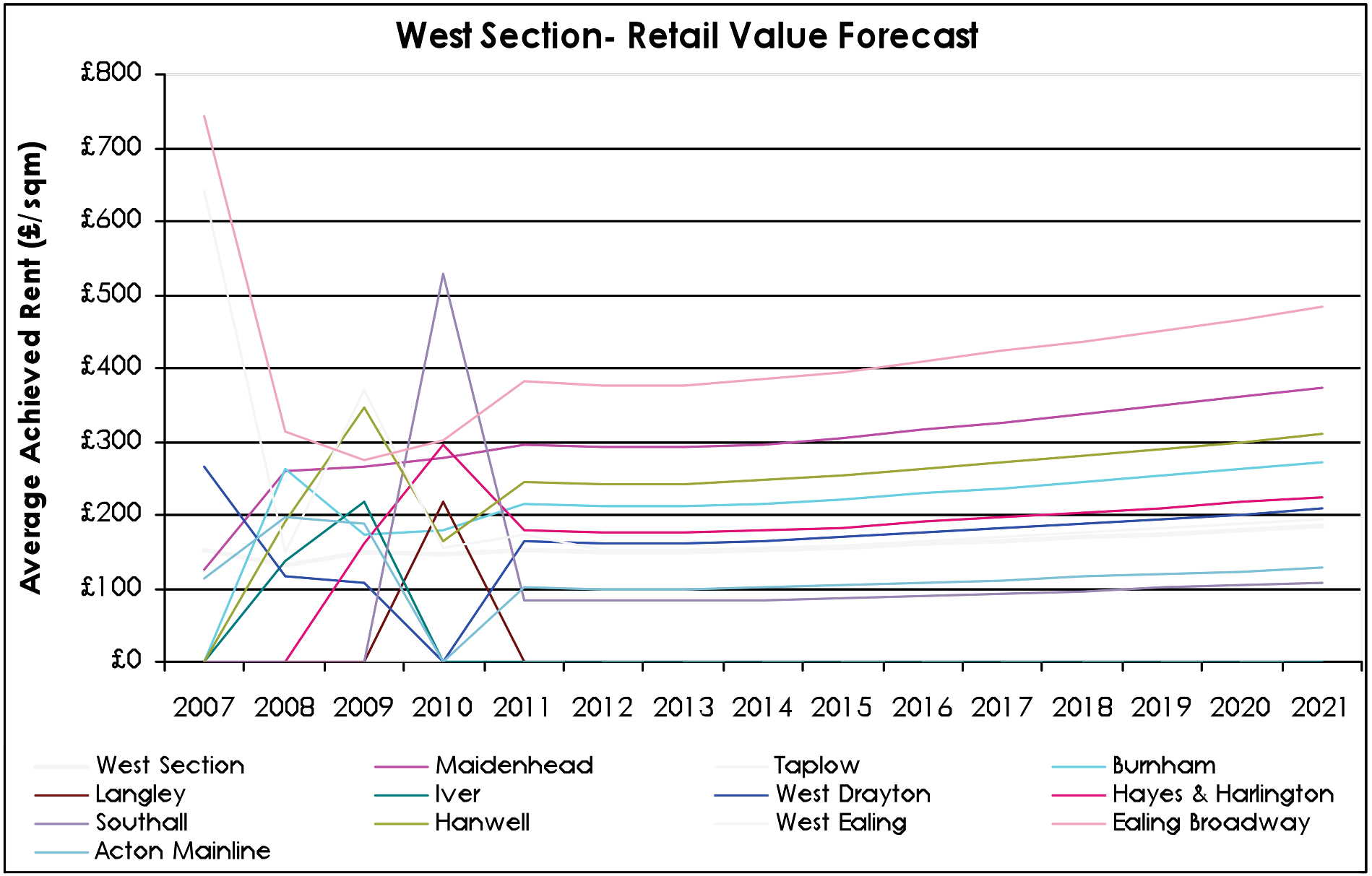

Brentwood - Office Value Forecast
Average Achieved Rent (£/sqm)
£350
£300
£250
£200
£150
£100
£50
£0
2007
2009
2011
2013
2015
2017
2019
2021
Chelmsford
Brentwood

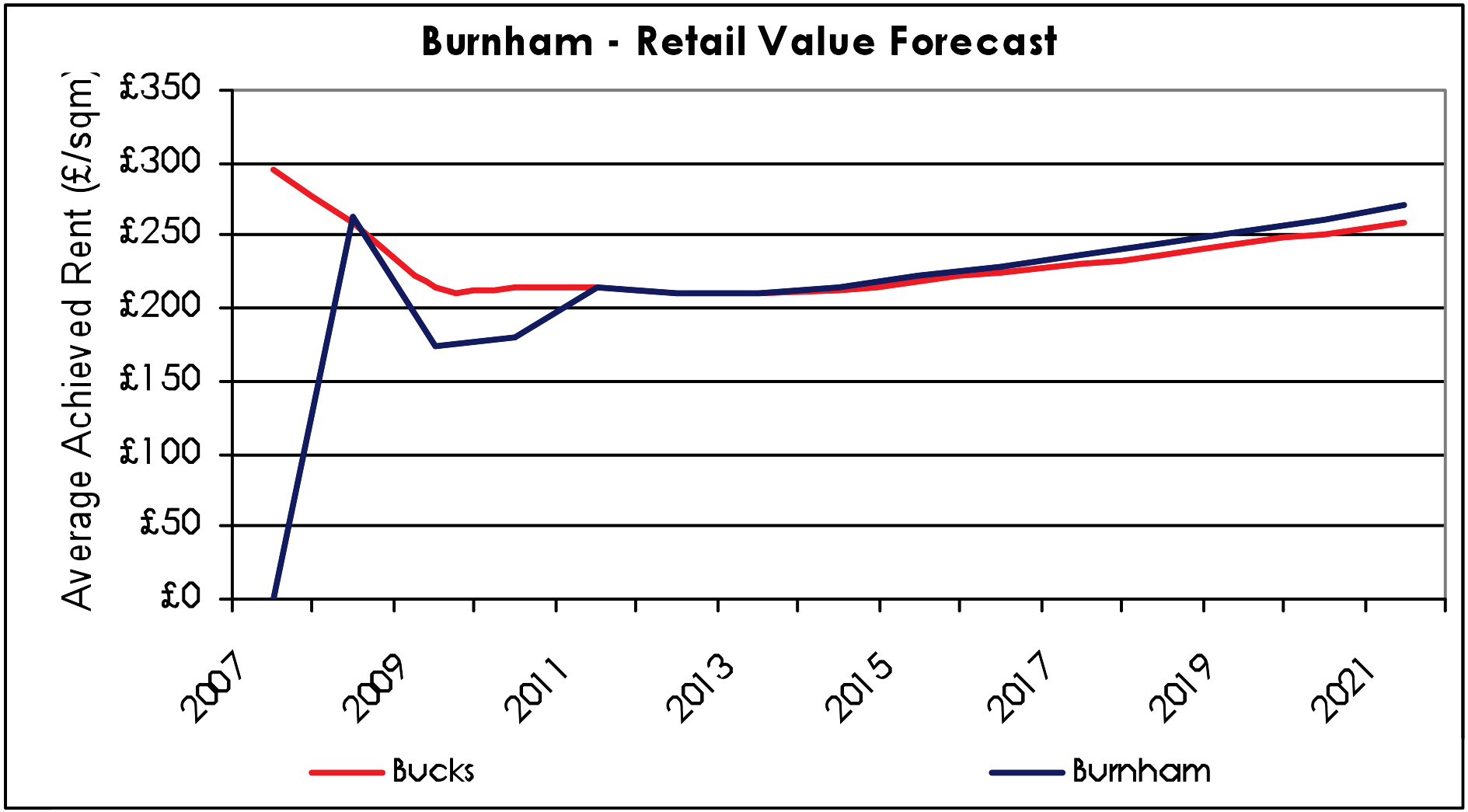

Custom House - Office Value Forecast
Average Achieved Rent (£/sqm)
£400
£350
£300
£250
£200
£150
£100
£50
£0
2007
2009
2011
2013
2015
2017
2019
2021
Isle of Dogs (Non-CW)
Custom House

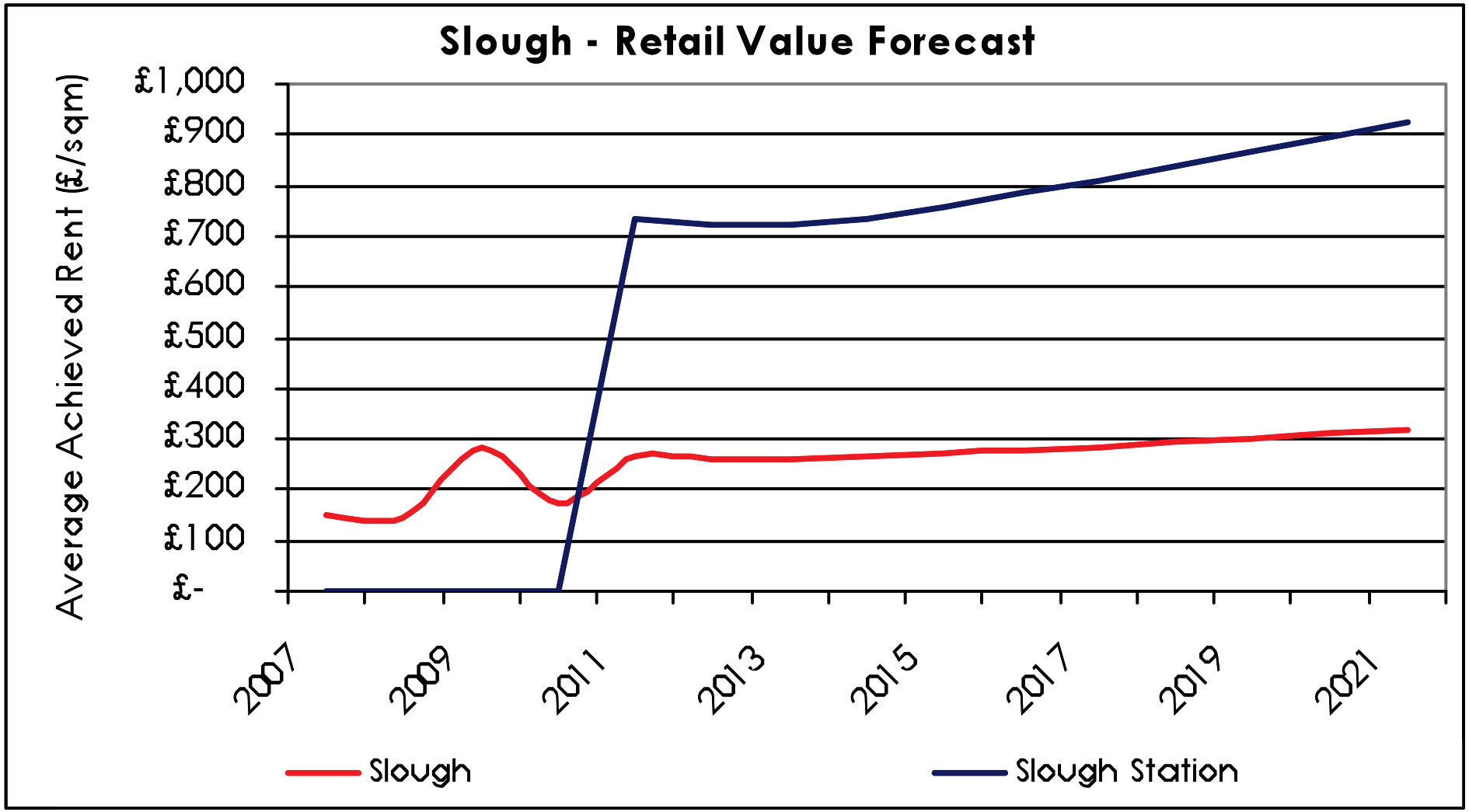

Woolwich - Office Value Forecast
Average Achieved Rent (£/sqm)
£400
£350
£300
£250
£200
£150
£100
£50
£0
2007
2009
2011
2013
2015
2017
2019
2021
Greenwich
Woolwich

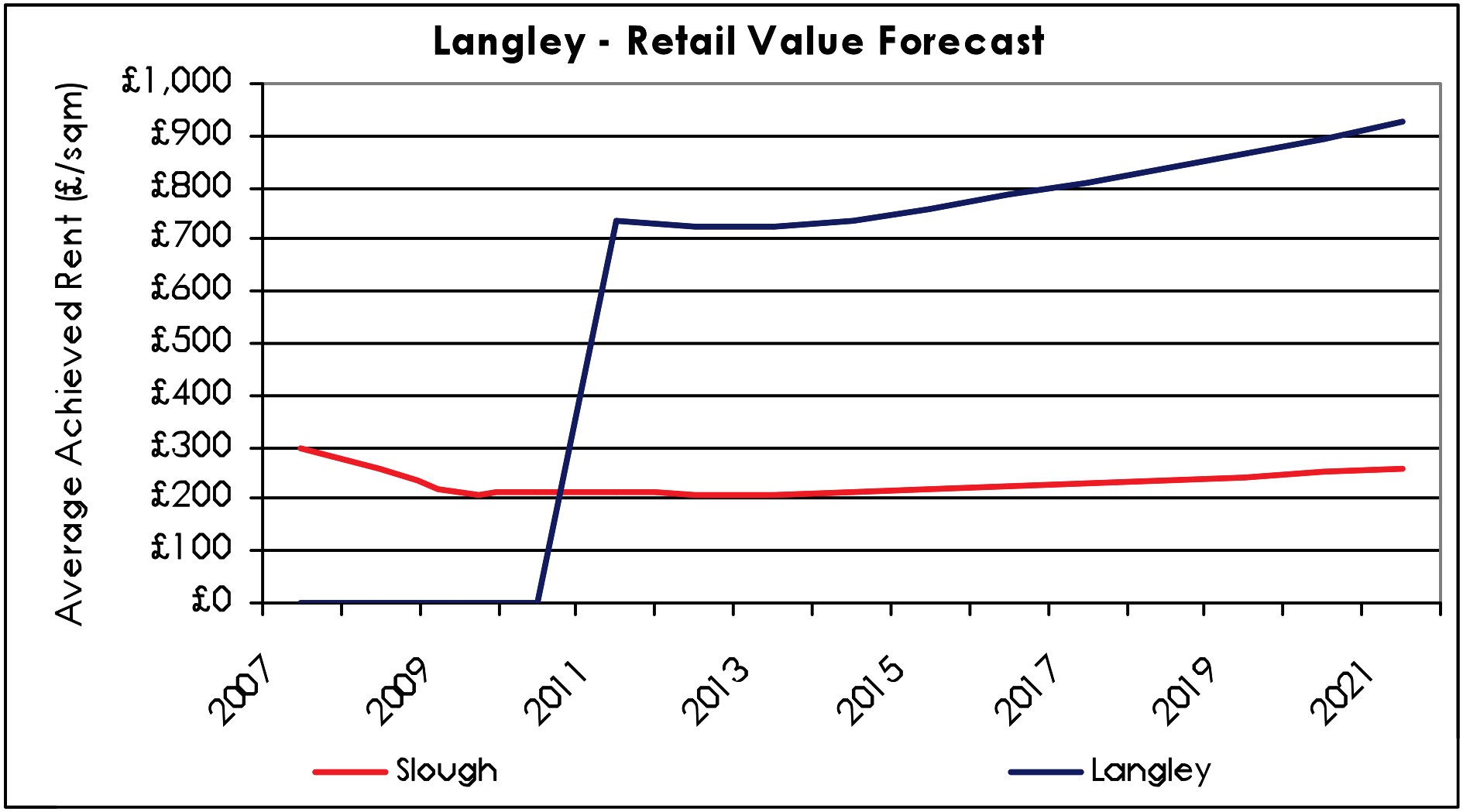
Appendix 5

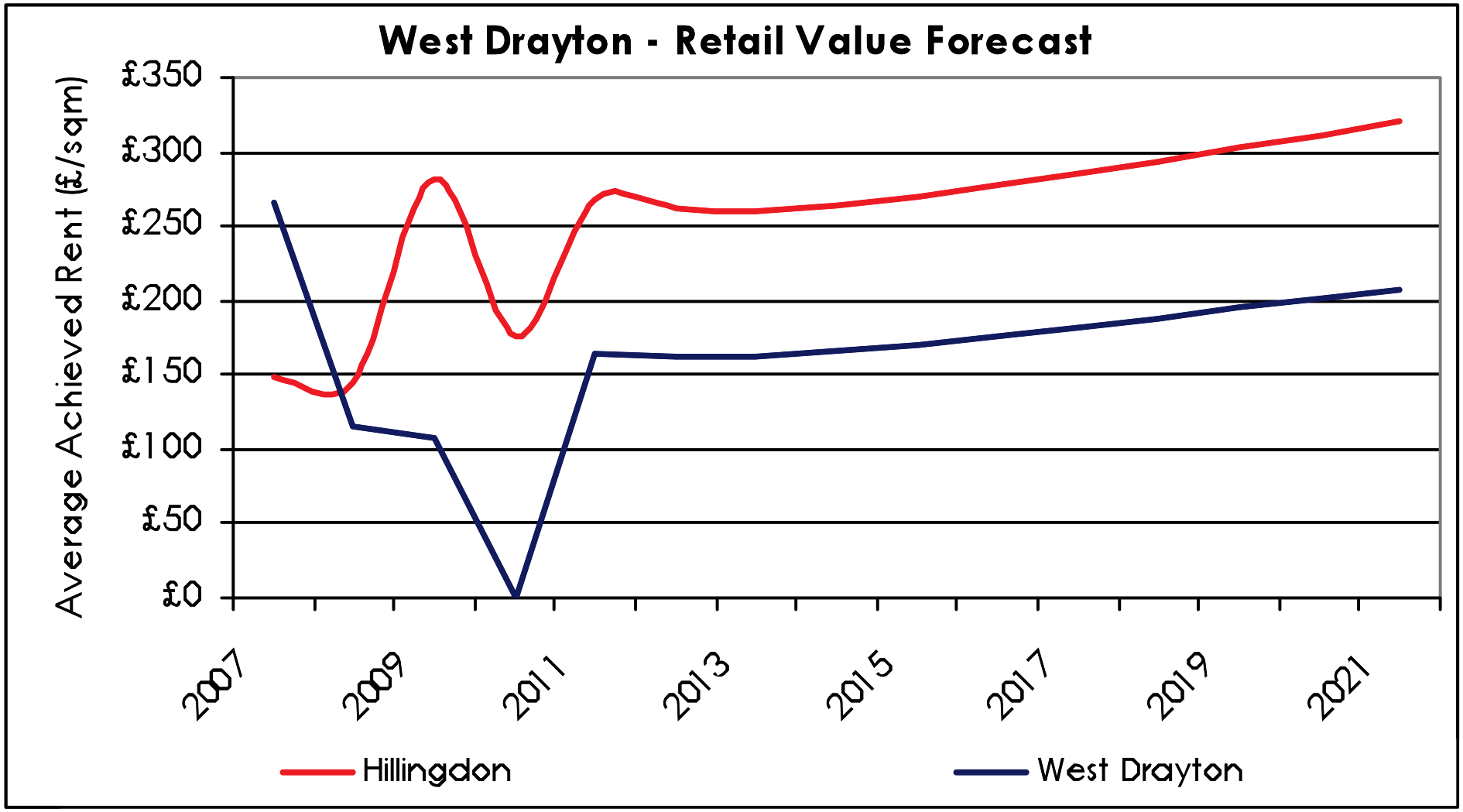
Retail Forecast raphs

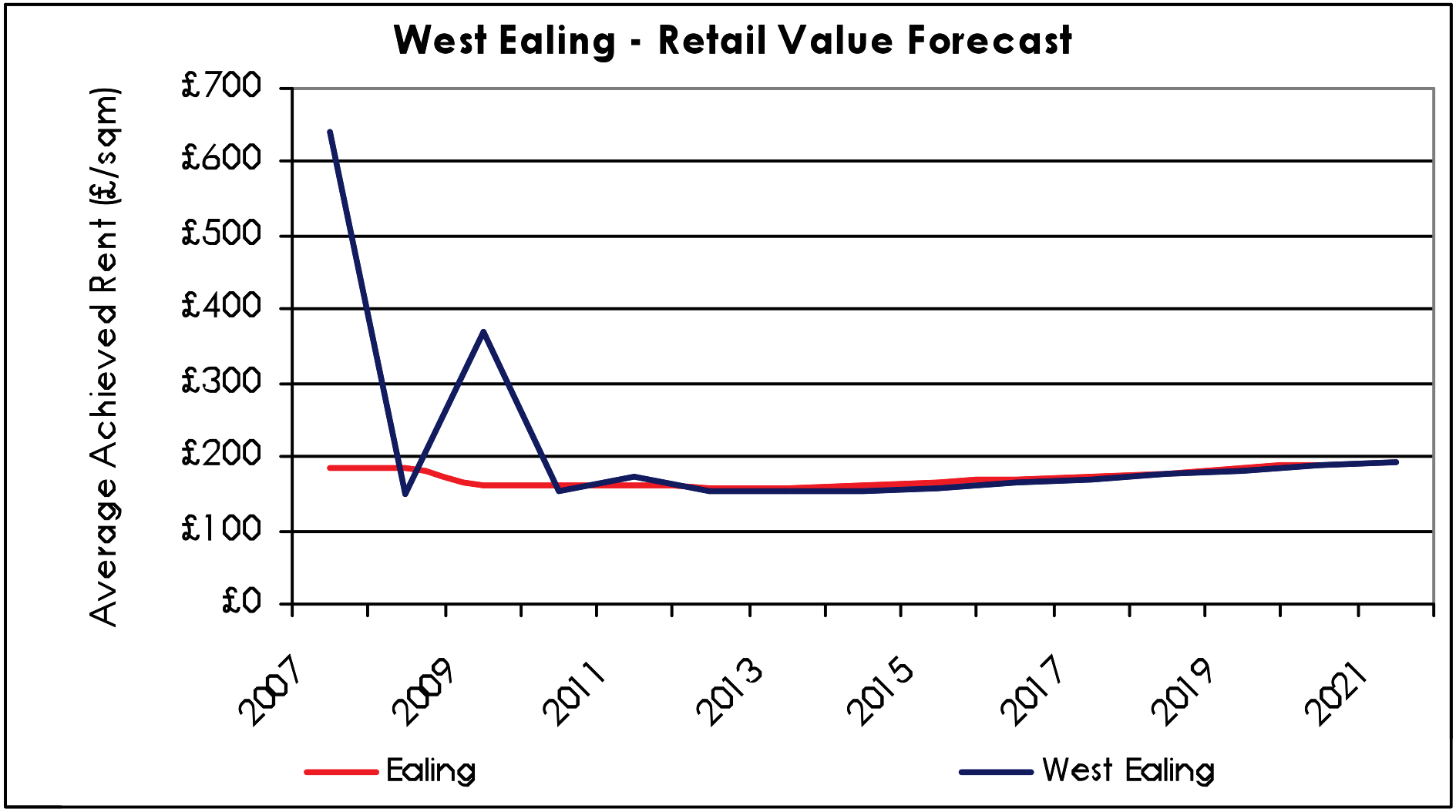

West Section- Retail Value Forecast
Average Achieved Rent (£/sqm)
£800
£700
£600
£500
£400
£300
£200
£100
£0
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
West Section
Maidenhead
Taplow
Burnham
Langley
Iver
West Drayton
Hayes & Harlington
Southall
Hanwell
West Ealing
Ealing Broadway
Acton Mainline

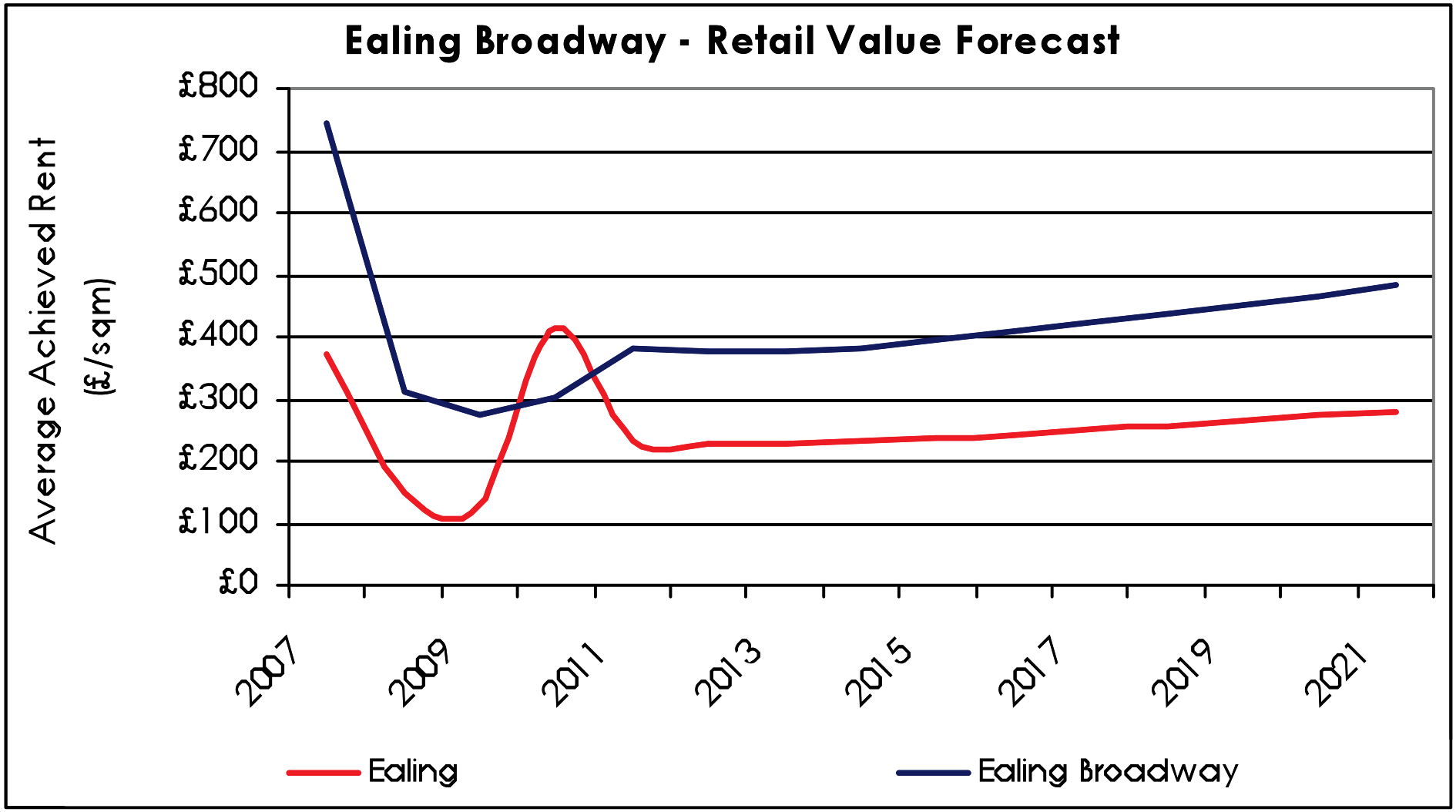

Burnham - Retail Value Forecast
Average Achieved Rent (£/sqm)
£350
£300
£250
£200
£150
£100
£50
£0
2007
2009
2011
2013
2015
2017
2019
2021
Bucks
Burnham

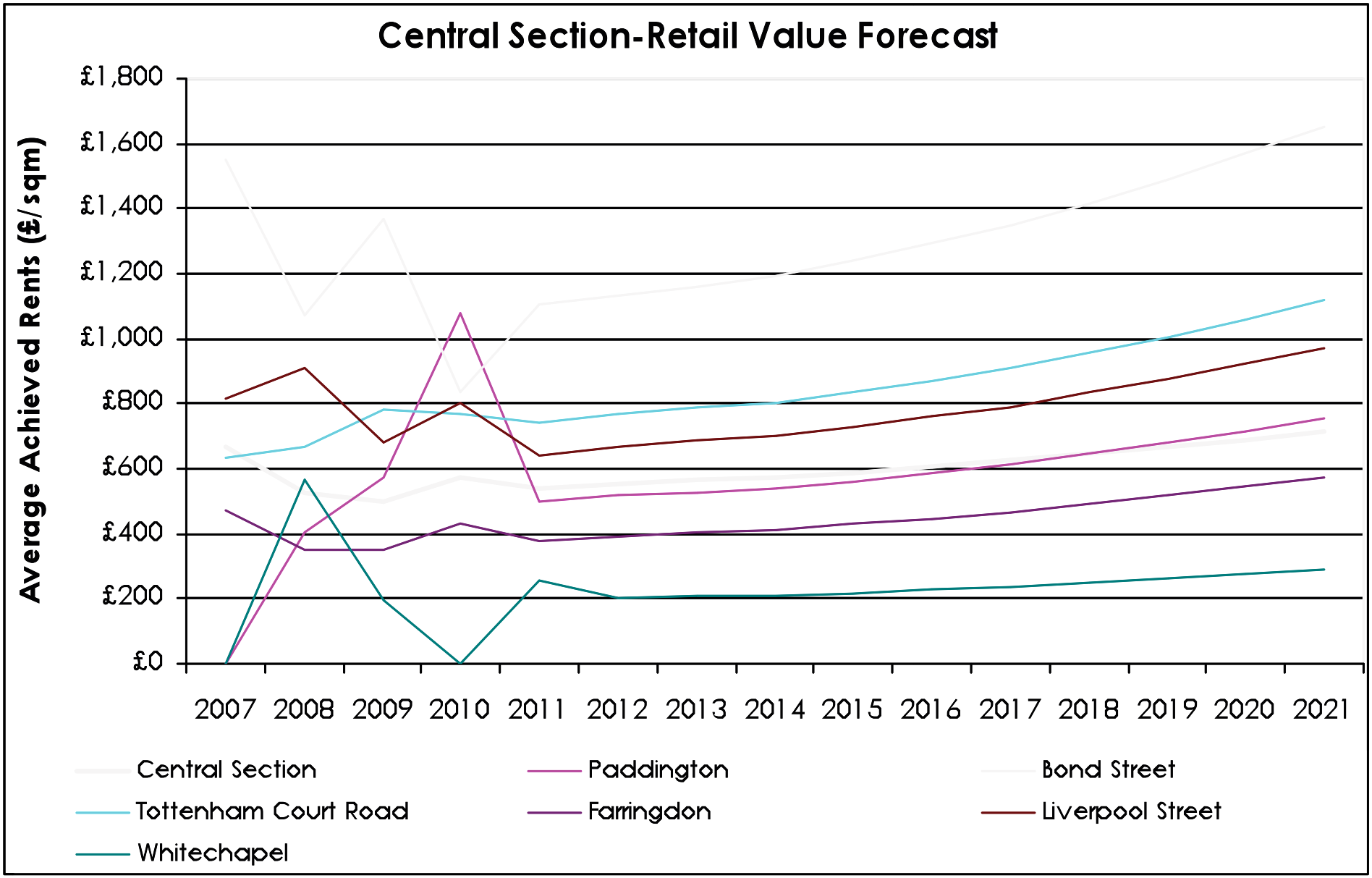

Slough - Retail Value Forecast
Average Achieved Rent (£/sqm)
£1,000
£900
£800
£700
£600
£500
£400
£300
£200
£100
£-
2007
2009
2011
2013
2015
2017
2019
2021
Slough
Slough Station

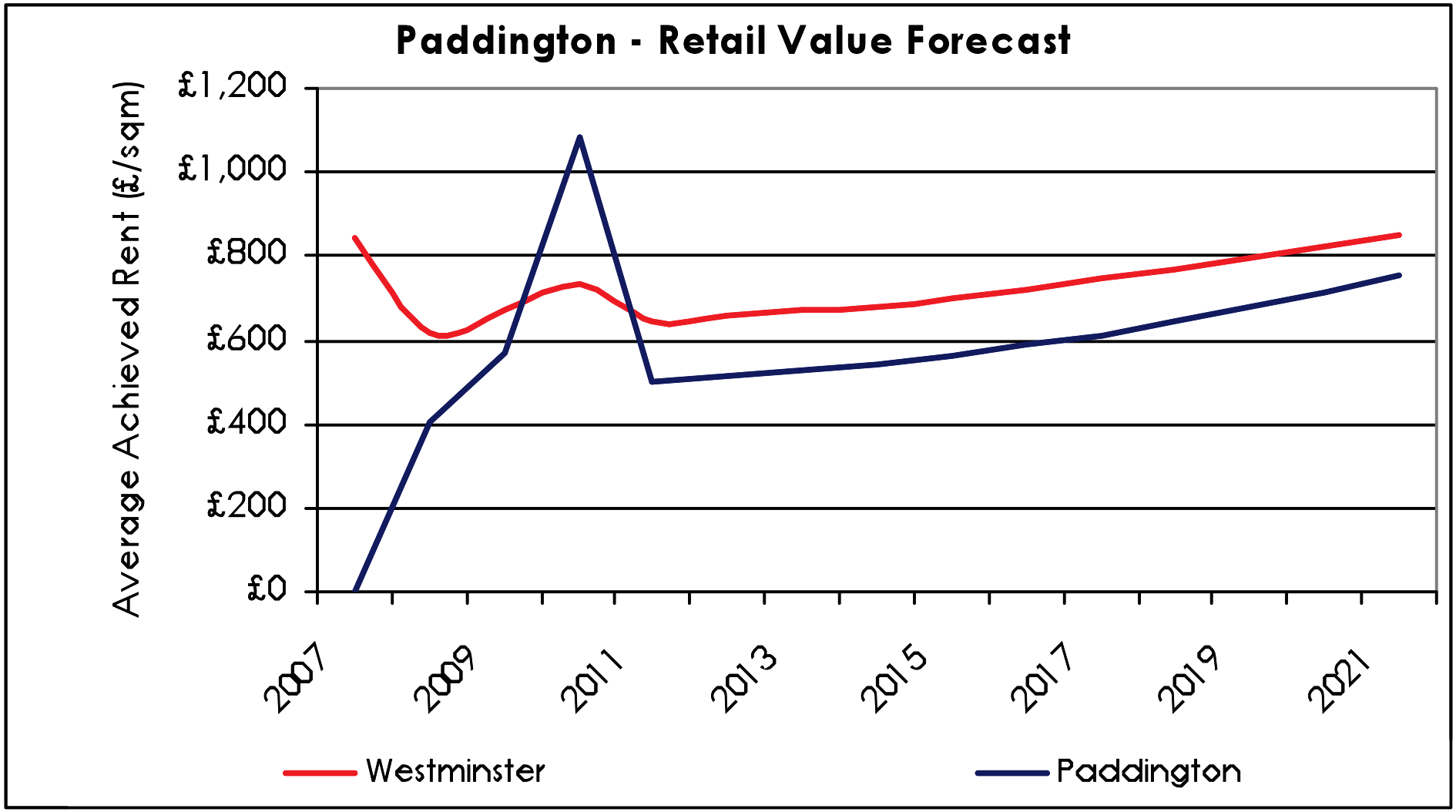

Langley - Retail Value Forecast
Average Achieved Rent (£/sqm)
£1,000
£900
£800
£700
£600
£500
£400
£300
£200
£100
£0
2007
2009
2011
2013
2015
2017
2019
2021
Slough
Langley

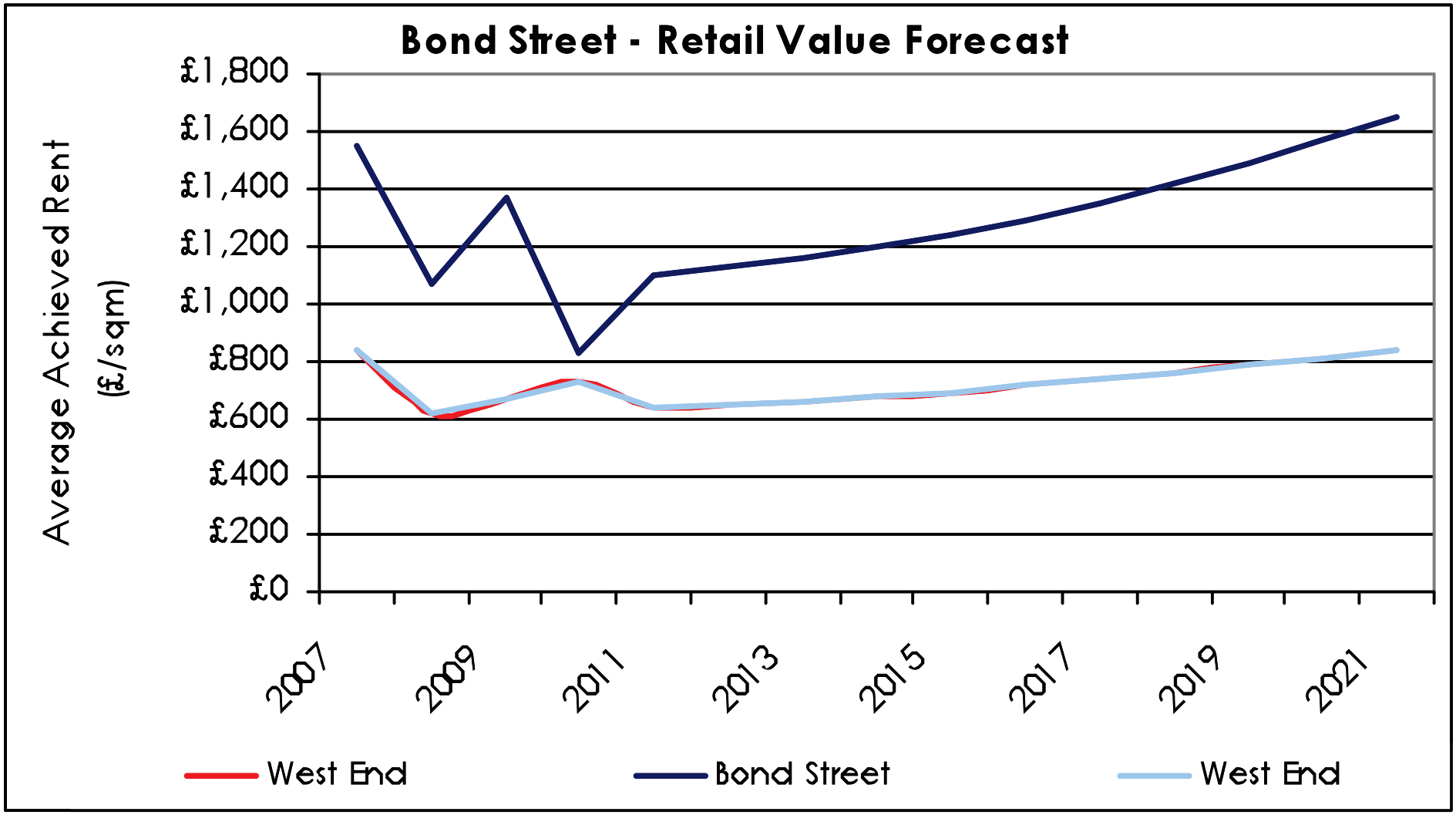

West Drayton - Retail Value Forecast
Average Achieved Rent (£/sqm)
£350
£300
£250
£200
£150
£100
£50
£0
2007
2009
2011
2013
2015
2017
2019
2021
Hillingdon
West Drayton

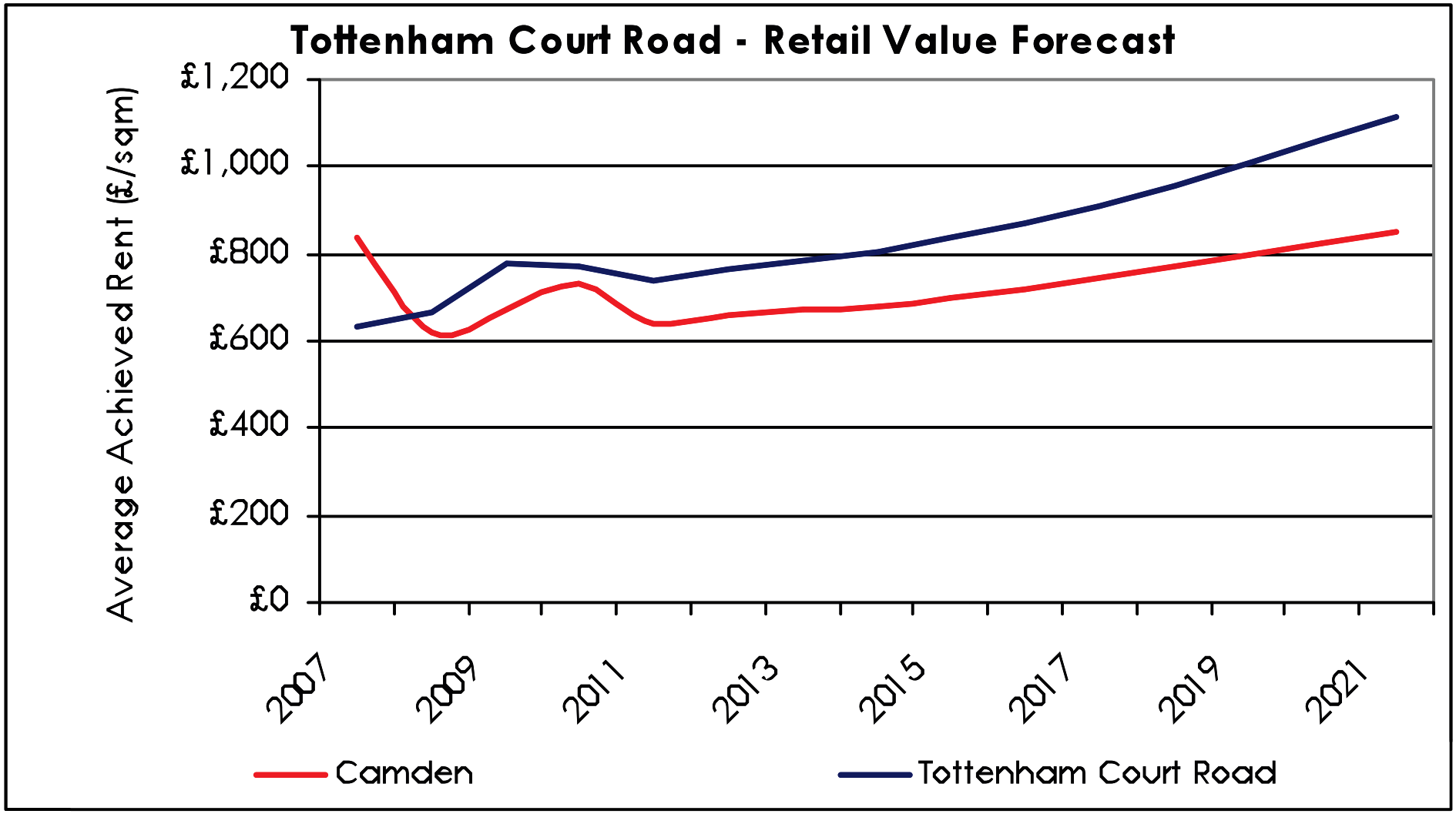

West Ealing - Retail Value Forecast
Average Achieved Rent (£/sqm)
£700
£600
£500
£400
£300
£200
£100
£0
2007
2009
2011
2013
2015
2017
2019
2021
Ealing
West Ealing

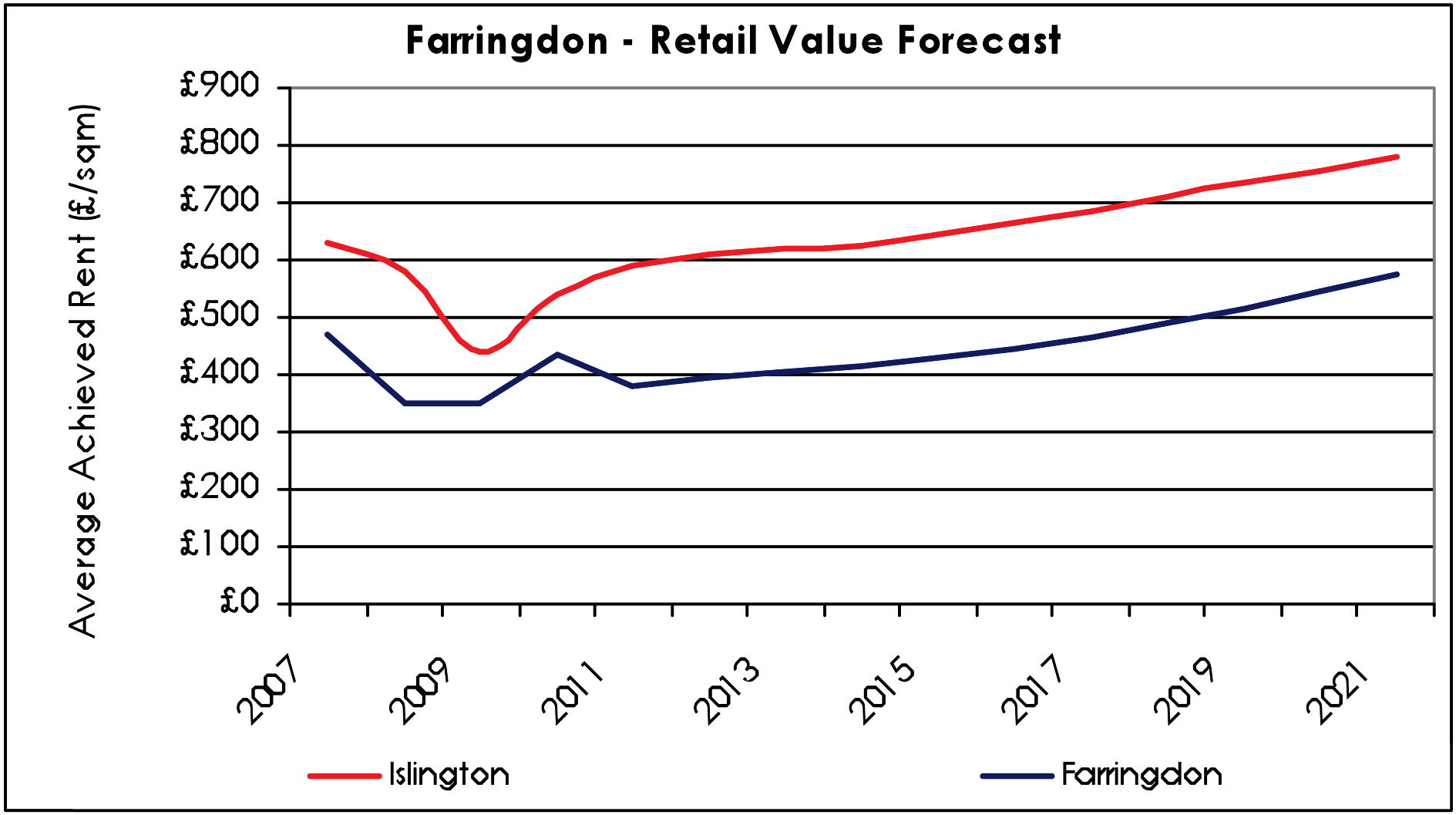

Ealing Broadway - Retail Value Forecast
Average Achieved Rent
(£/sqm)
£800
£700
£600
£500
£400
£300
£200
£100
£0
2007
2009
2011
2013
2015
2017
2019
2021
Ealing
Ealing Broadway

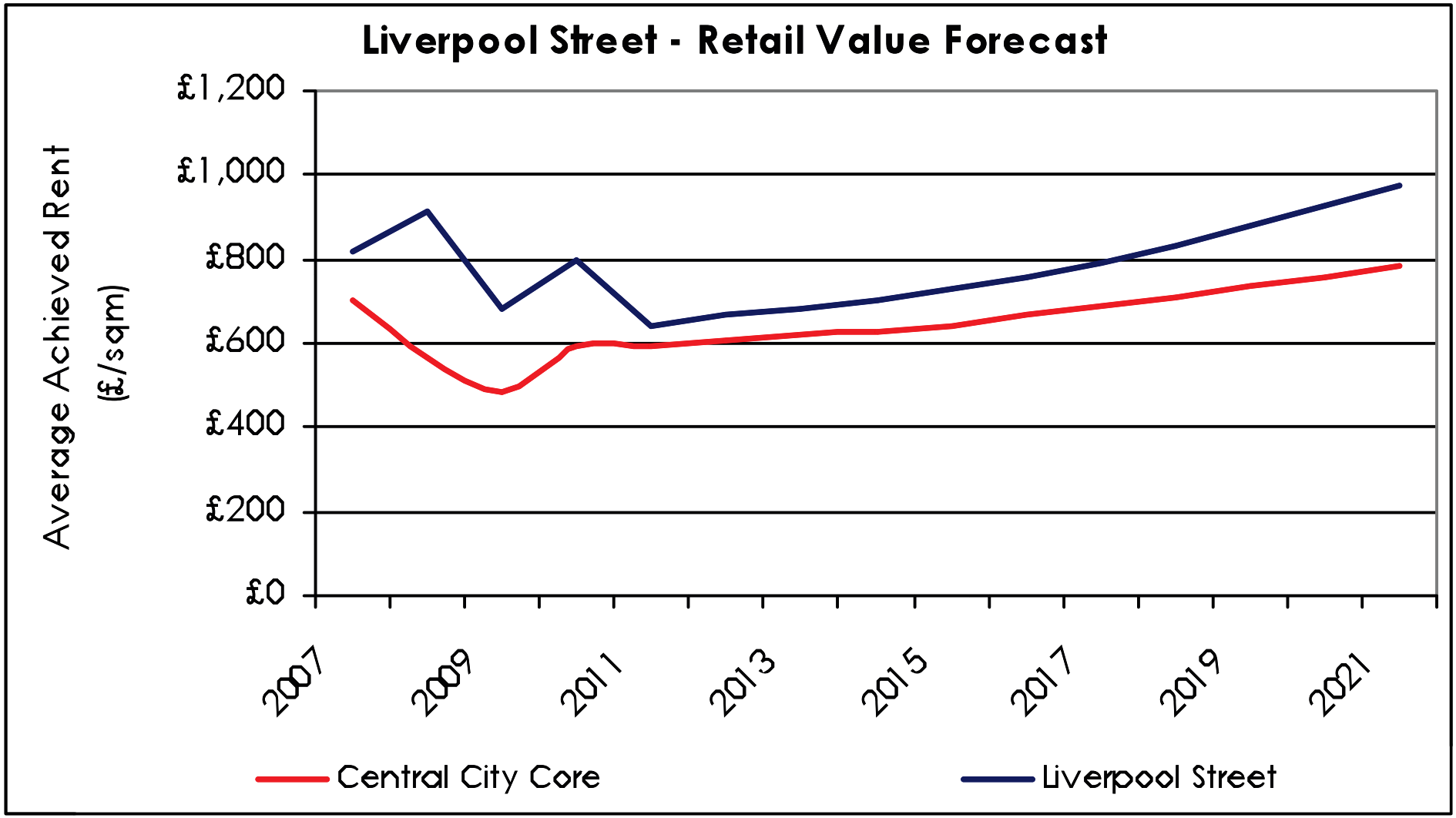

Central Section-Retail Value Forecast
Average Achieved Rents (£/sqm)
£1,800
£1,600
£1,400
£1,200
£1,000
£800
£600
£400
£200
£0
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
Central Section
Paddington
Bond Street
Tottenham Court Road
Farringdon
Liverpool Street
Whitechapel

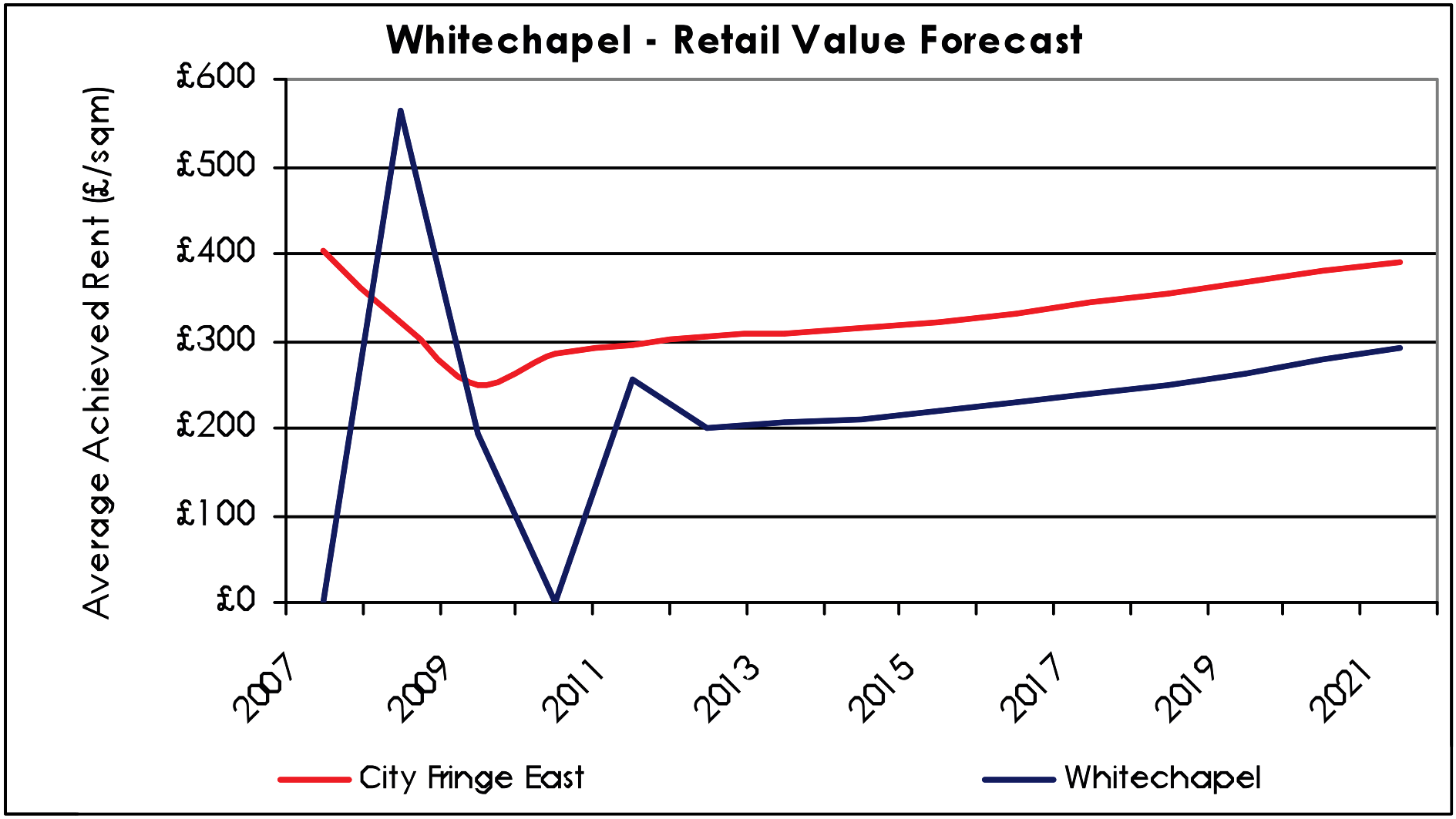

Paddington - Retail Value Forecast
Average Achieved Rent (£/sqm)
£1,200
£1,000
£800
£600
£400
£200
£0
2007
2009
2011
2013
2015
2017
2019
2021
Westminster
Paddington

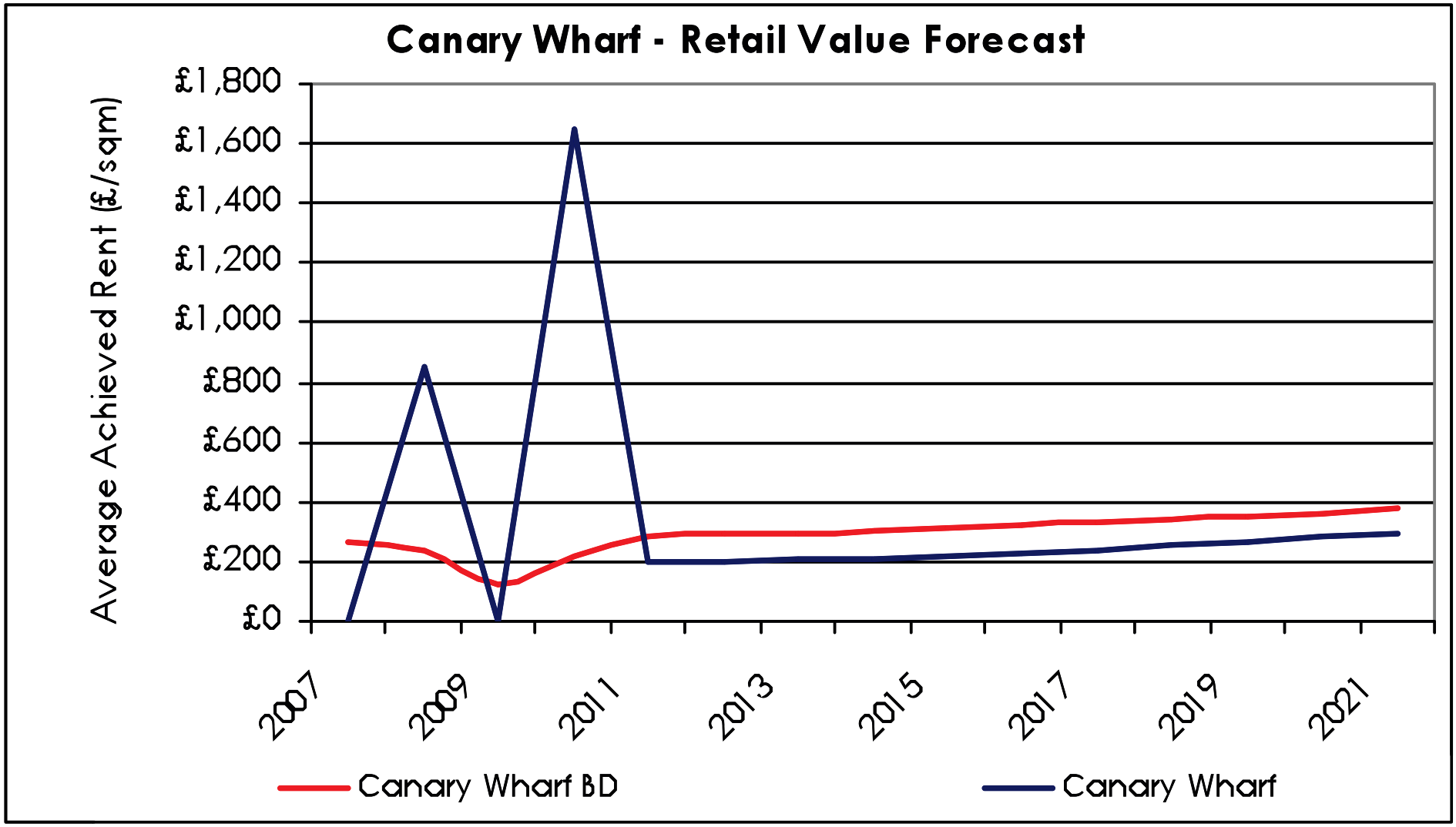

Bond Street - Retail Value Forecast
Average Achieved Rent
(£/sqm)
£1,800
£1,600
£1,400
£1,200
£1,000
£800
£600
£400
£200
£0
2007
2009
2011
2013
2015
2017
2019
2021
West End
Bond Street
West End

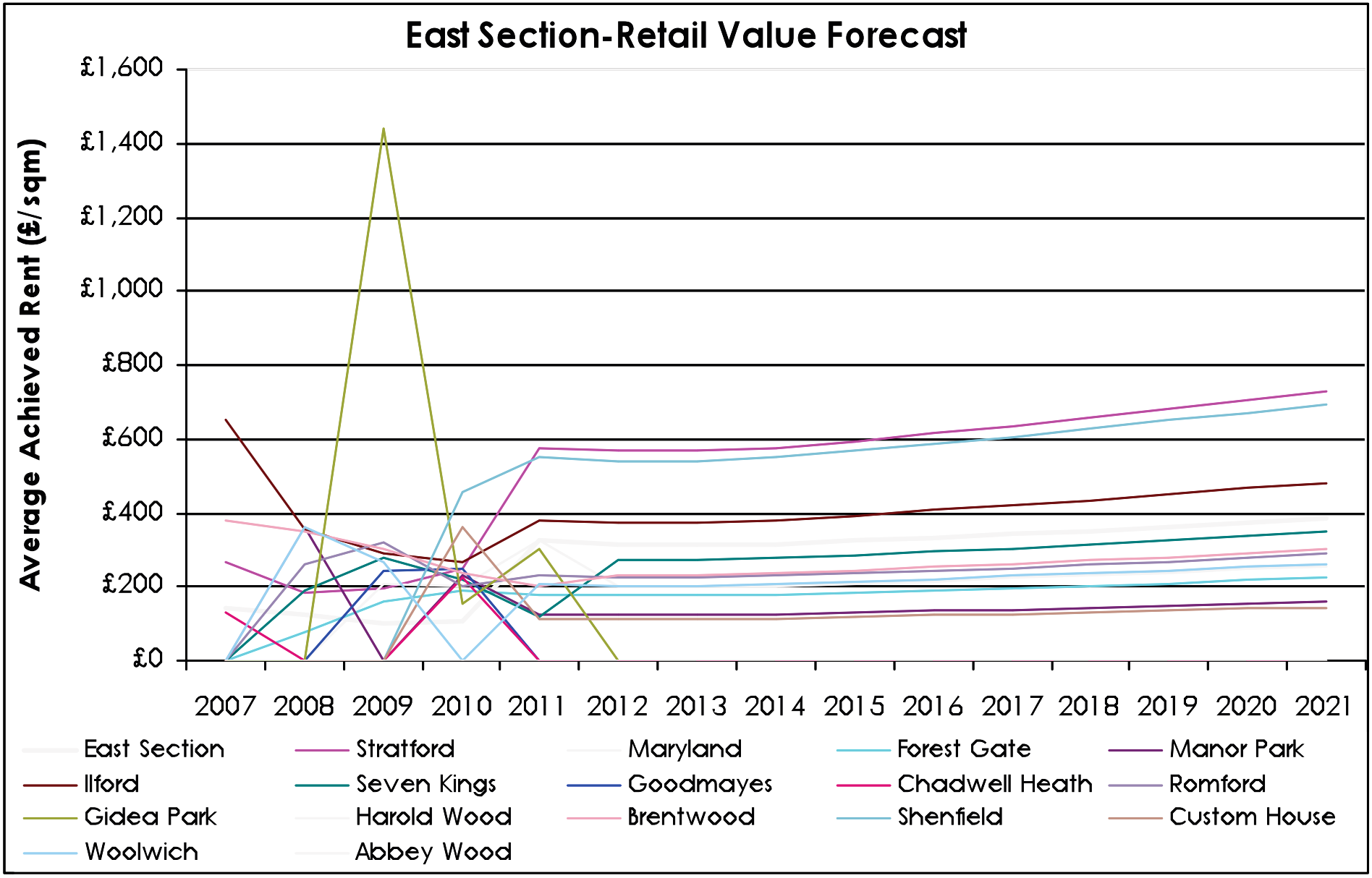

Tottenham Court Road - Retail Value Forecast
Average Achieved Rent (£/sqm)
£1,200
£1,000
£800
£600
£400
£200
£0
2007
2009
2011
2013
2015
2017
2019
2021
Camden
Tottenham Court Road

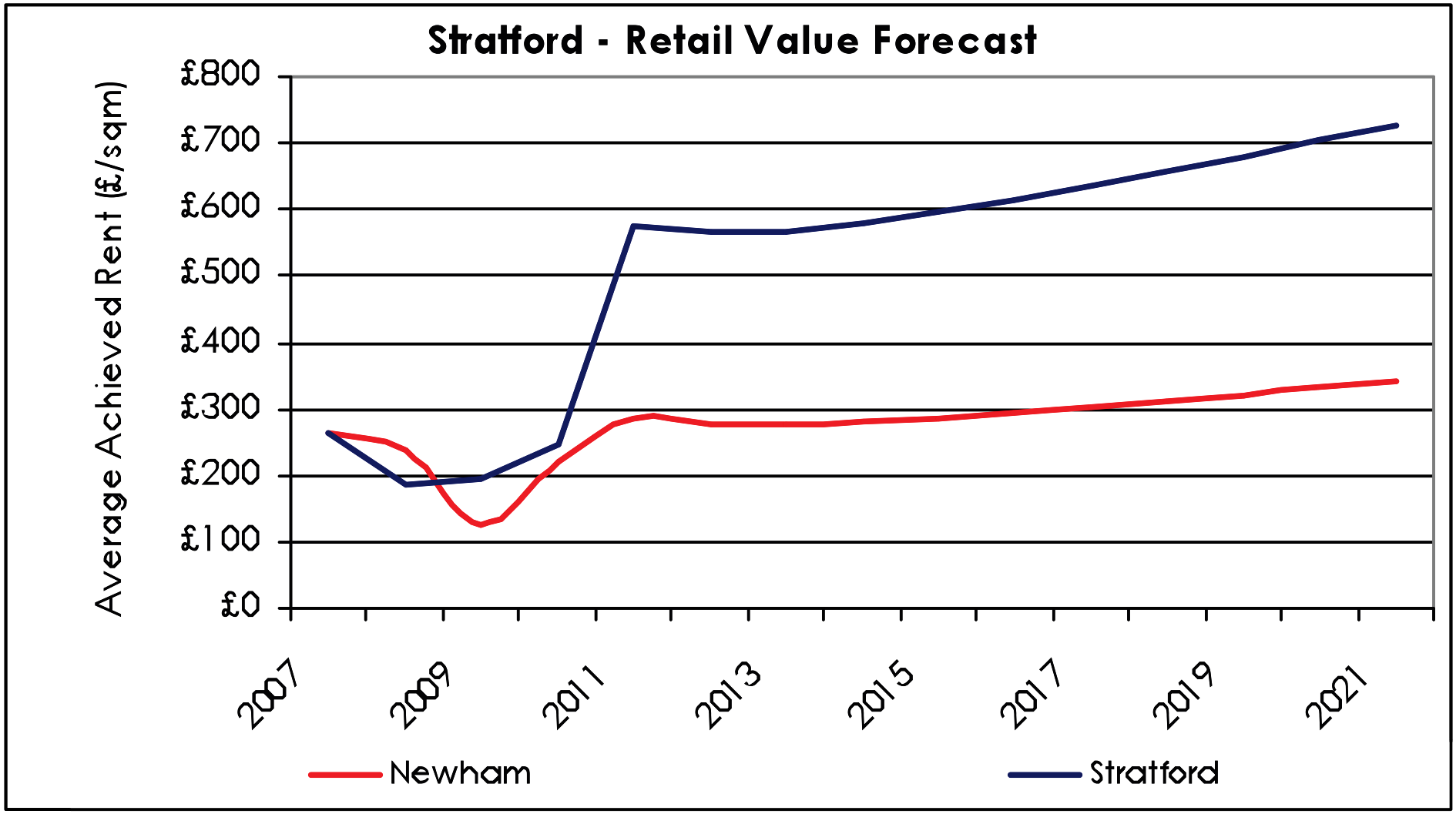

Farringdon - Retail Value Forecast
Average Achieved Rent (£/sqm)
£900
£800
£700
£600
£500
£400
£300
£200
£100
£0
2007
2009
2011
2013
2015
2017
2019
2021
Islington
Farringdon

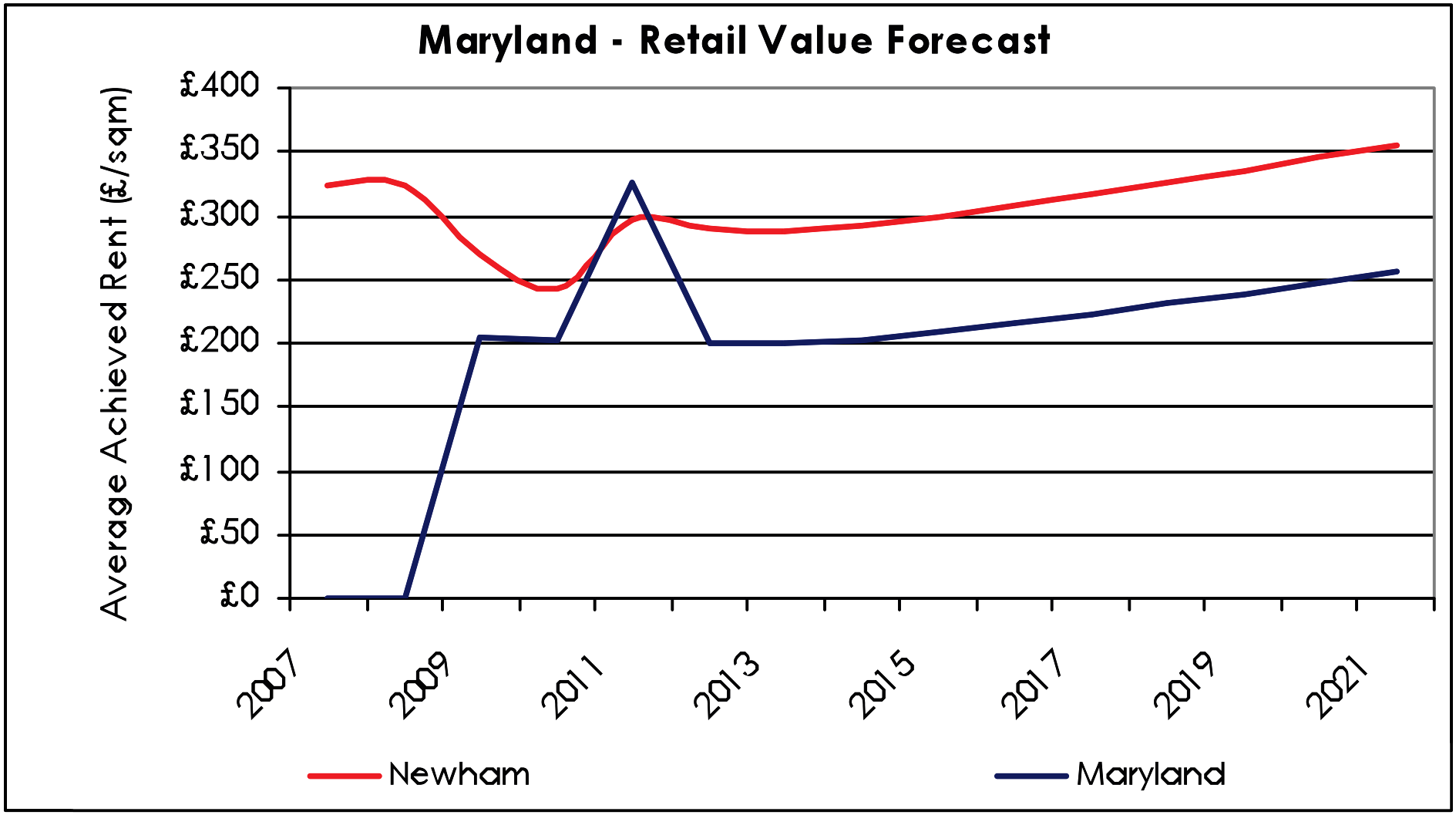

Liverpool Street - Retail Value Forecast
Average Achieved Rent
(£/sqm)
£1,200
£1,000
£800
£600
£400
£200
£0
2007
2009
2011
2013
2015
2017
2019
2021
Central City Core
Liverpool Street

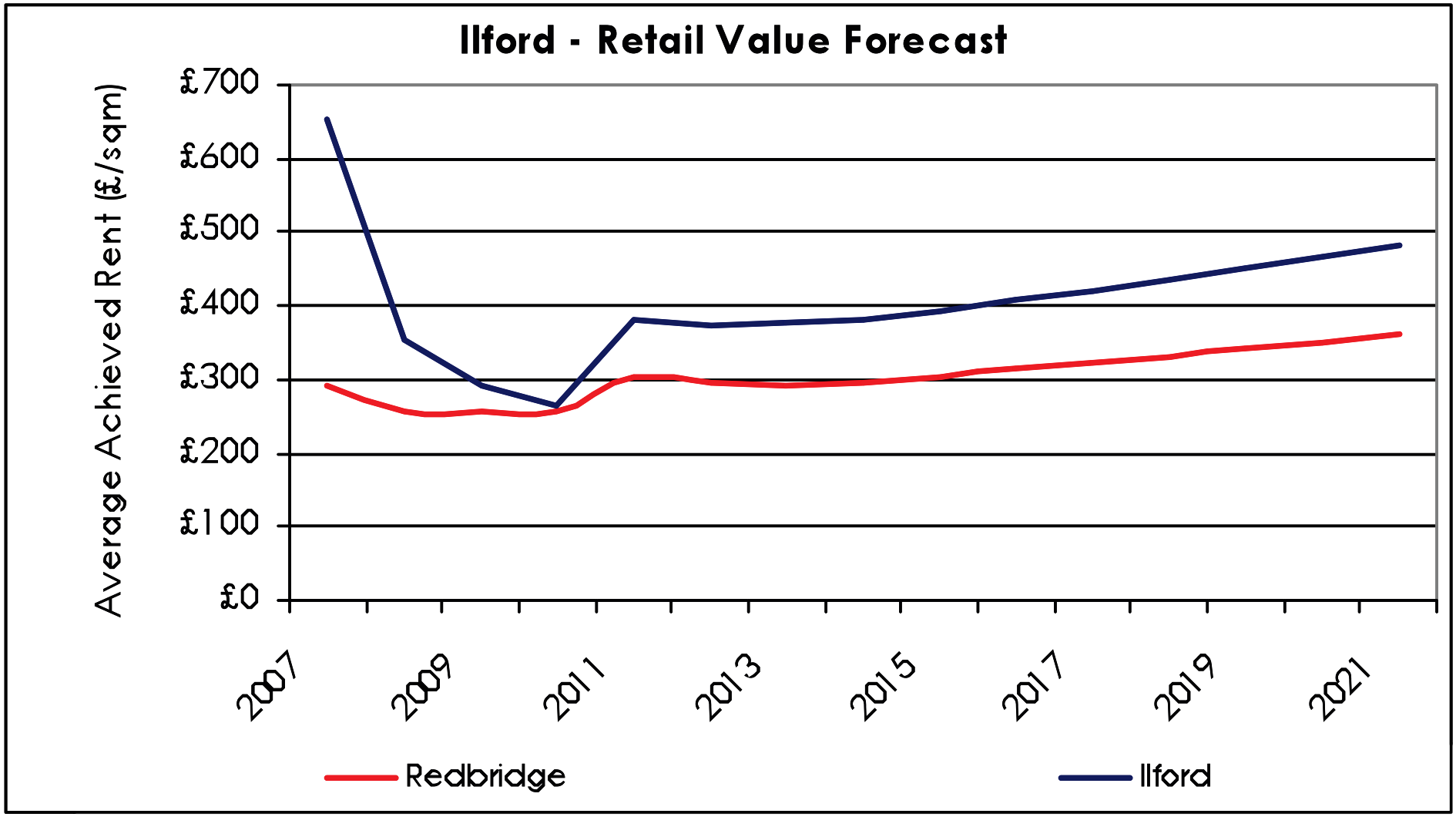

Whitechapel - Retail Value Forecast
Average Achieved Rent (£/sqm)
£600
£500
£400
£300
£200
£100
£0
2007
2009
2011
2013
2015
2017
2019
2021
City Fringe East
Whitechapel

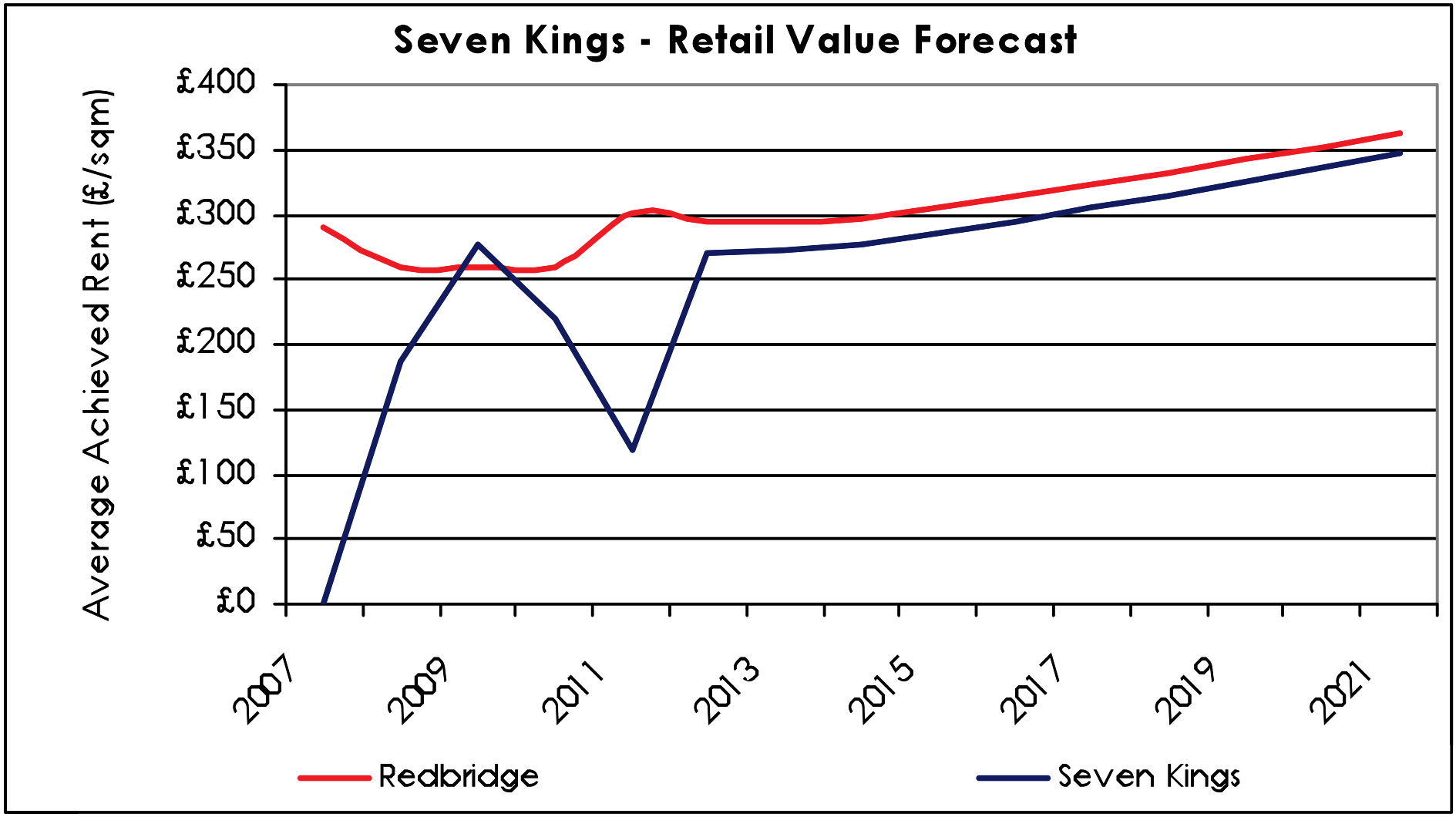

Canary Wharf - Retail Value Forecast
Average Achieved Rent (£/sqm)
£1,800
£1,600
£1,400
£1,200
£1,000
£800
£600
£400
£200
£0
2007
2009
2011
2013
2015
2017
2019
2021
Canary Wharf BD
Canary Wharf

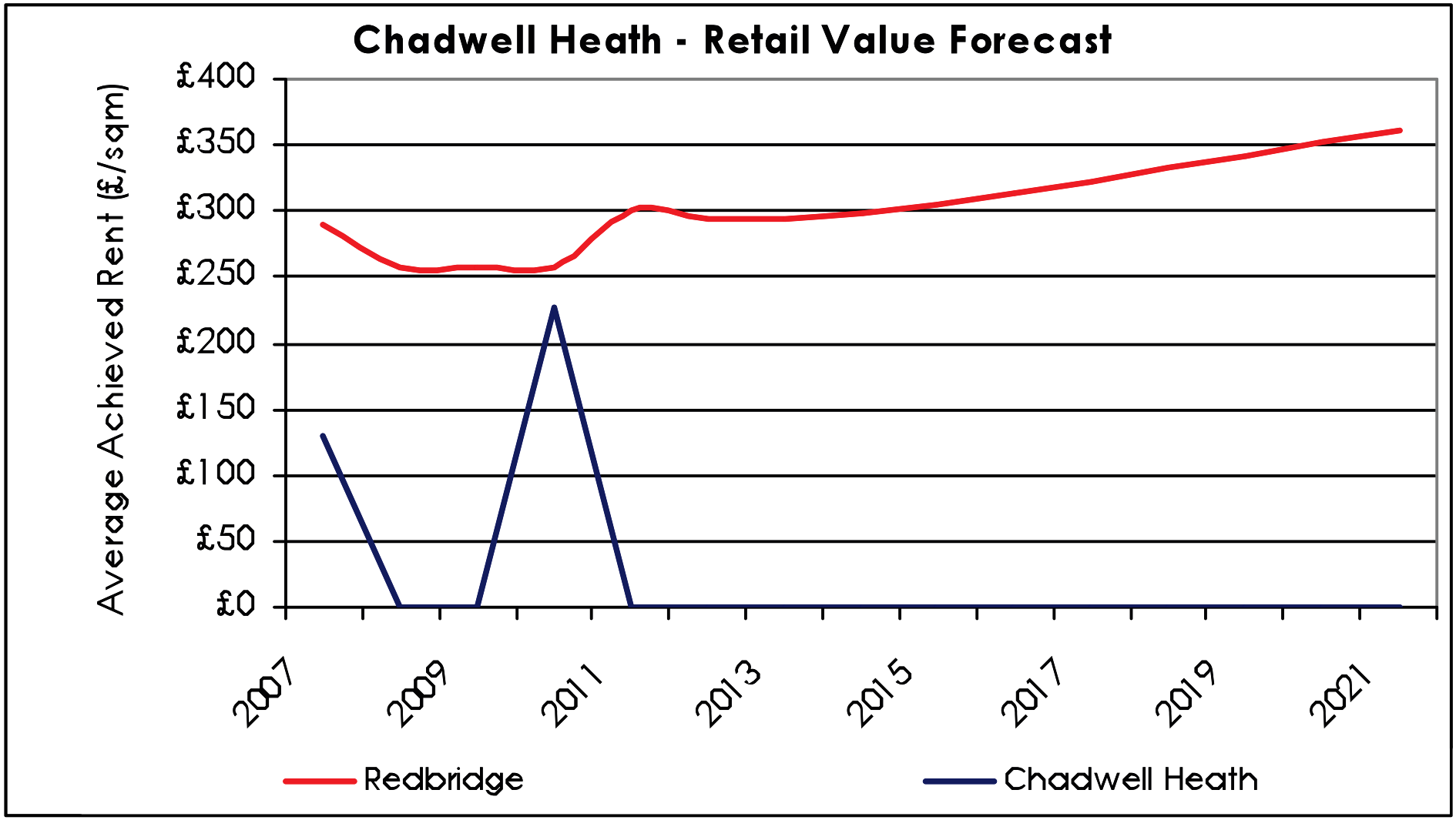

East Section-Retail Value Forecast
Average Achieved Rent (£/sqm)
£1,600
£1,400
£1,200
£1,000
£800
£600
£400
£200
£0
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
East Section
Stratford
Maryland
Forest Gate
Manor Park
Ilford
Seven Kings
Goodmayes
Chadwell Heath
Romford
Gidea Park
Harold Wood
Brentwood
Shenfield
Custom House
Woolwich
Abbey Wood

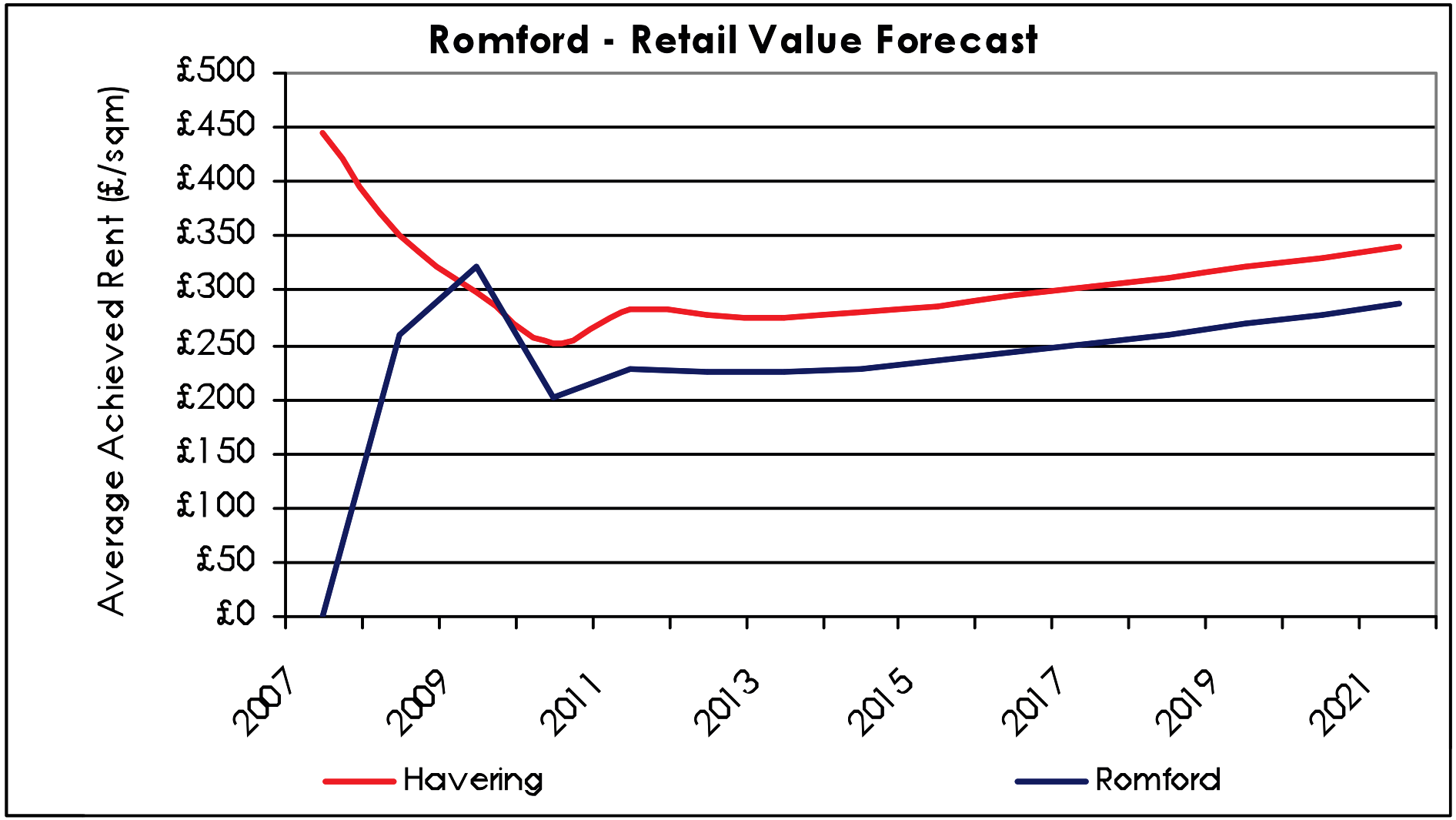

Stratford - Retail Value Forecast
Average Achieved Rent (£/sqm)
£800
£700
£600
£500
£400
£300
£200
£100
£0
2007
2009
2011
2013
2015
2017
2019
2021
Newham
Stratford

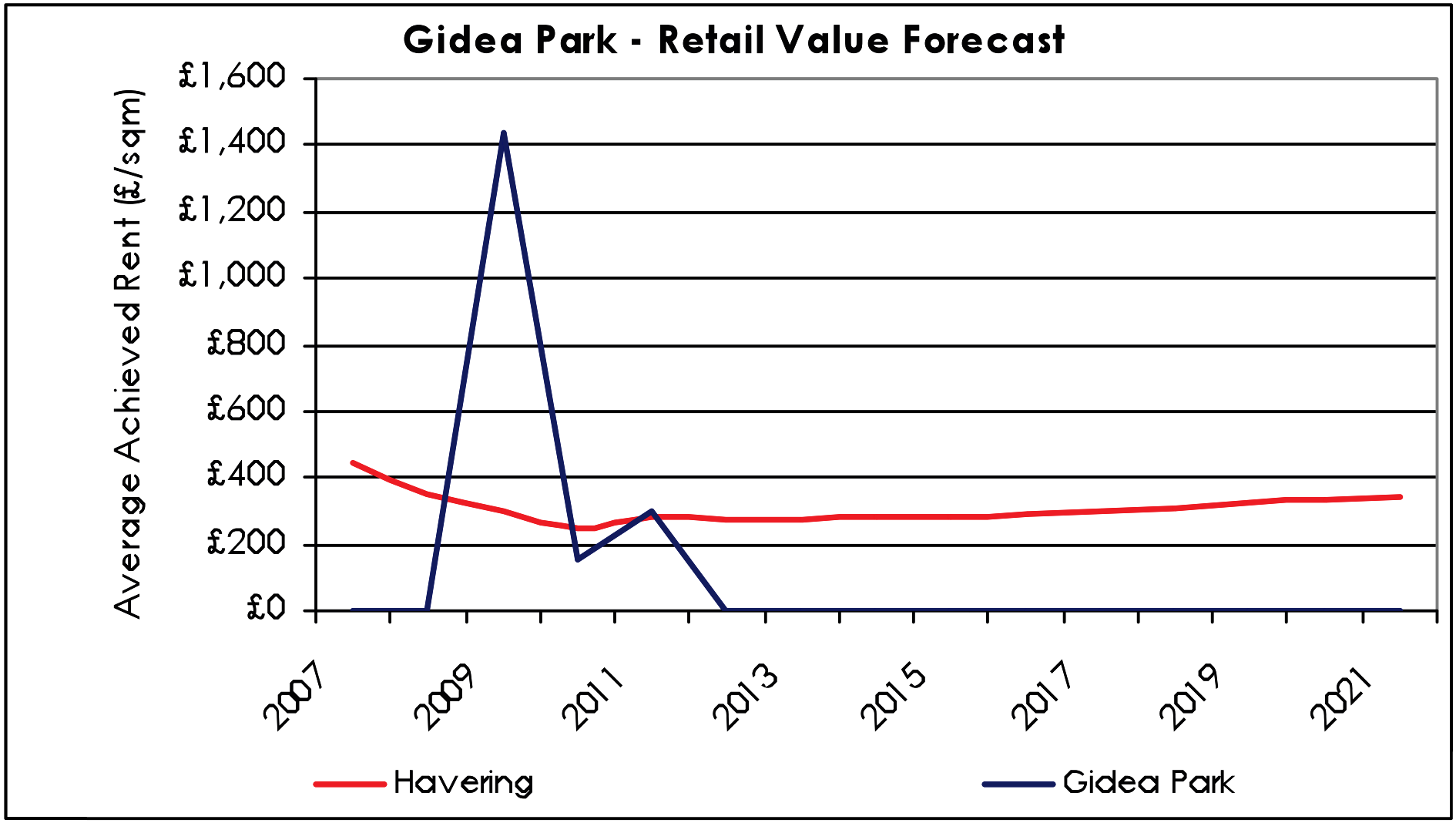

Maryland - Retail Value Forecast
Average Achieved Rent (£/sqm)
£400
£350
£300
£250
£200
£150
£100
£50
£0
2007
2009
2011
2013
2015
2017
2019
2021
Newham
Maryland

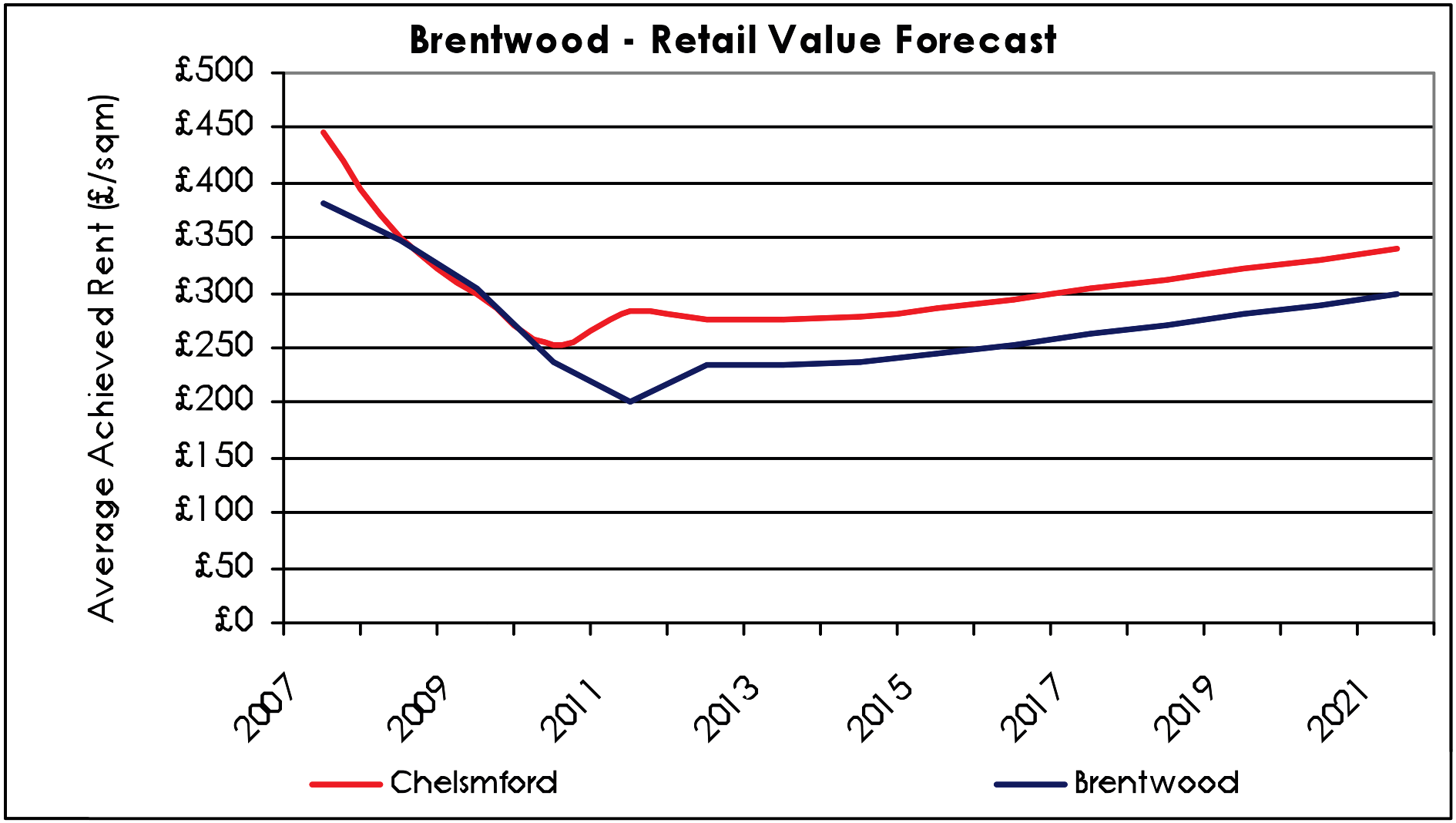

Ilford - Retail Value Forecast
Average Achieved Rent (£/sqm)
£700
£600
£500
£400
£300
£200
£100
£0
2007
2009
2011
2013
2015
2017
2019
2021
Redbridge
Ilford

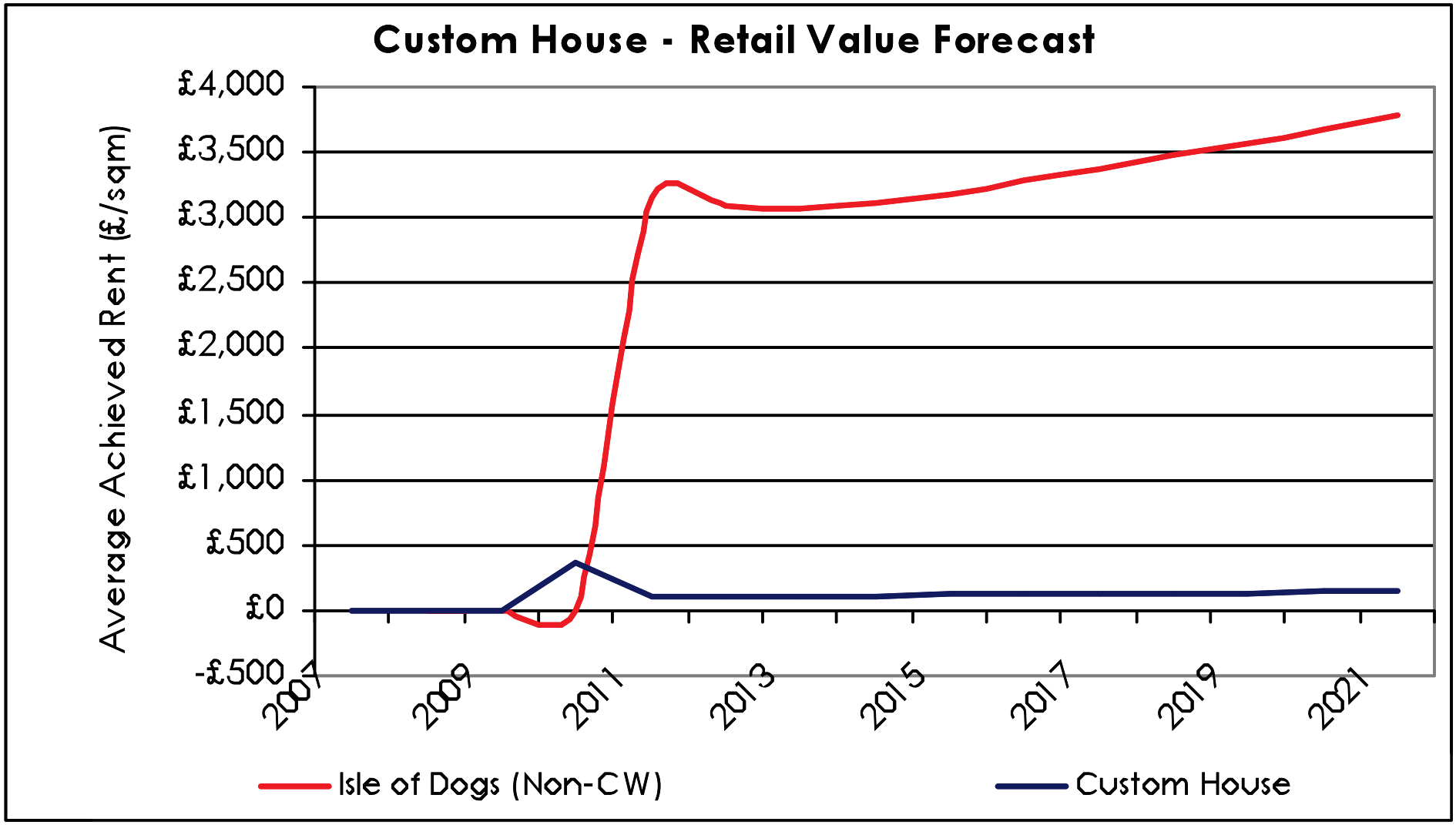

Seven Kings - Retail Value Forecast
Average Achieved Rent (£/sqm)
£400
£350
£300
£250
£200
£150
£100
£50
£0
2007
2009
2011
2013
2015
2017
2019
2021
Redbridge
Seven Kings

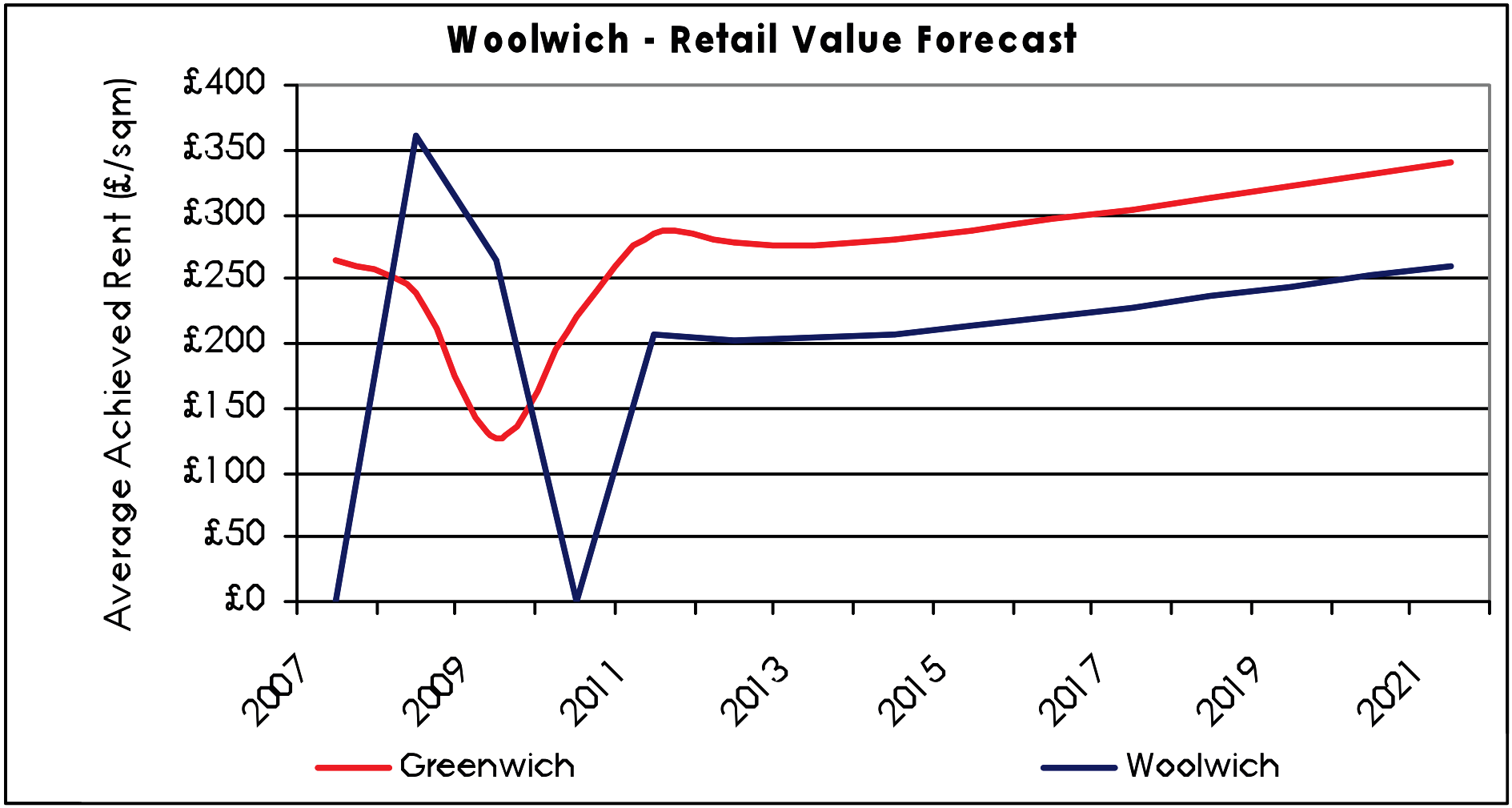

Chadwell Heath - Retail Value Forecast
Average Achieved Rent (£/sqm)
£400
£350
£300
£250
£200
£150
£100
£50
£0
2007
2009
2011
2013
2015
2017
2019
2021
Redbridge
Chadwell Heath


Romford - Retail Value Forecast
Average Achieved Rent (£/sqm)
£500
£450
£400
£350
£300
£250
£200
£150
£100
£50
£0
2007
2009
2011
2013
2015
2017
2019
2021
Havering
Romford


Gidea Park - Retail Value Forecast
Average Achieved Rent (£/sqm)
£1,600
£1,400
£1,200
£1,000
£800
£600
£400
£200
£0
2007
2009
2011
2013
2015
2017
2019
2021
Havering
Gidea Park


Brentwood - Retail Value Forecast
Average Achieved Rent (£/sqm)
£500
£450
£400
£350
£300
£250
£200
£150
£100
£50
£0
2007
2009
2011
2013
2015
2017
2019
2021
Chelsmford
Brentwood


Custom House - Retail Value Forecast
Average Achieved Rent (£/sqm)
£4,000
£3,500
£3,000
£2,500
£2,000
£1,500
£1,000
£500
£0
-£500
2007
2009
2011
2013
2015
2017
2019
2021
Isle of Dogs (Non-CW)
Custom House


Woolwich - Retail Value Forecast
Average Achieved Rent (£/sqm)
£400
£350
£300
£250
£200
£150
£100
£50
£0
2007
2009
2011
2013
2015
2017
2019
2021
Greenwich
Woolwich

Appendix

Development Activity and Planning Policy

Appendix

Table 1: Central Section – Paddington to Stratford

Station	Borough/District	Market Character	Policy Drivers	Future Development Activity Potential
Paddington	City of Westminster	Paddington station sits within the existing Paddington Special Policy area in Westminster and closely connected to the A40. The area is a complex mix of commercial employment activities in close proximity to residential uses and a significant level of hotel and visitor accommodation. St Mary's Hospital is also within close proximity to the station and is adjacent to an extensive Royal Mail sorting and mail delivery centre. Merchant Square, a recent mixed use development, which forms a key part of the Paddington Basin development is also in the immediate station vicinity.	• Core Strategy (Adopted 2011) • Undertaking two reviews in 2012/2013 to reflect the NPPF (National Planning Policy Framework) and the CMP (City Management Plan) polices • The station is located within the Paddington Special Policy Area (PSPA), which has been in existence since 1988 • The development of the area has already been guided by specific polices, and are integrated with the existing public transport links • Paddington Maine Line station has an adopted planning brief incorporating the potential of Crossrail • The Special Policy Area has been in place for a number of years and as a result has guided the redevelopment of the entire area. • More recently the Council have produced a Crossrail development brief to reflect the project. Generally there is a mix of housing tenures in the new developments with the Crown estate taking approx 100 new residential units in the built part of Merchant Square, as well as very high end penthouses overlooking the basin. Given its proximity to the Edgware Road (A5) the area is very attractive to overseas investors. • There are a number of current Planning Briefs for specific sites within the Paddington Basing Special Policy Area which will guide the potential redevelopment of buildings.	Some potential and impact: • The Paddington area, particularly Paddington Basin has a high profile to the investment, occupier and development market already arising from existing development projects, completed schemes and supportive policy. • Crossrail will provide an enhanced level of accessibility and improvements to journey time at Paddington, however this will be a relatively modest enhancement given the range of other rail, underground and bus network already in existence in this area. However this area has already experienced a comprehensive programme of new development, site regeneration and growth in the past decade. • Existing planning policies are conducive towards mixed use development and intensification. The availability of sites and land to deliver future growth will be a constraining factor. • The OSD development in Paddington will support development activity and maximise the immediate opportunity for densification of uses on the Paddington Triangle site. Some 30,000 sqm of new office floorspace is proposed, subject to planning, negotiations.
Bond Street	City of Westminster	Bond Street is a high value retail and commercial area located within the West End in London. It is in close proximity to both Oxford Street and Regent Street which together represent the largest and highest value retail destination in the UK. The wider area Zone of Influence around Bond Street station includes Mayfair which has a mixed character including both high value office accommodation, consulate and embassy activities and prime residential property. The station has already undergone a major refurbishment and enlargement to provide greater capacity for the underground network as well as integrating an interchange for Crossrail links.	• Core Strategy (Adopted 2011) • Undertaking two reviews in 2012/2013 to reflect the NPPF (National Planning Policy Framework) and the CMP (City Management Plan) polices • The Crossrail site has already been significantly developed to increase the capacity of the underground station as well as integrating a ticketing hall for Crossrail and enhanced interchange. • Growth and development of the station area is supported in the Westminster Core Strategy for a mix of uses including retail, leisure, commercial office floorspace and residential.	Some potential and impact directly arising from Crossrail: • The new Crossrail station will provide a significant enhancement to the Bond Street area in terms of quality and time of journey. • Over Station development sites create the basis for new mixed use floorspace to be created within the immediate Station Core Zone of Influence. • More widely, the existing strength of the Bond Street retail market, will be a significant driver of future development potential activity. This will work in tandem with the Council, Crown Estate and other major landowner interests in the continued renewal and enhancement of property in this area. The new Crossrail station will support this but its property impact in isolation will likely be relatively modest.

Station	Borough/District	Market Character	Policy Drivers	Future Development Activity Potential
Tottenham Court Road	City of Westminster	Tottenham Court Road is located at the eastern end of Oxford Street and forms a distinctive area within the Oxford Street, Bond Street and Regent Street centre as a whole. It also acts as a hinge zone to the wider Mid Town area centred on Holborn. Tottenham Court Road is currently characterised as a providing a mixture of retail, leisure, office and residential land uses at a high density. There are a number of properties and sites within the Inner Station Zone of Influence where re-development and intensification could occur given the wide diversity of existing uses. The quality and attractiveness of Tottenham Court Road is perceived to be of a lower grade than the western end of Oxford Street and the mix and value of retail/leisure activities here indicates more of a value offer. The existing Tottenham Court Road underground station has an adopted planning brief which guides the development of a new public plaza outside Centre Point tower in order to enhance cycle and bus access, as this is one of London's most congested transport interchanges.	• Core Strategy (Adopted 2011) • Undertaking two reviews in 2012/2013 to reflect the NPPF (National Planning Policy Framework) and the CMP (City Management Plan) polices • The site has already been significantly developed to increase the capacity of the underground station as well as integrating a ticketing hall for Cross rail and access. • The development has also included a new public plaza to help reduce the existing and future congestion of the area.	Very significant potential and impact: • Crossrail will provide significant new and additional transport capacity and enhanced accessibility to the Tottenham Court Road area. • Conducive planning policy and property market perceptions recognise the opportunity for regeneration and enhancement of the area, including the re-development of existing sites with substantial latent market value. Future development and intensification impact is therefore considered to be significant. This will be further supported by the Crossrail Over Site Development at Tottenham Court Road (West) for 92 residential units and retail space in Oxford Street for which permission has been granted. • Focus of the Council and New West End Company on the enhancement and renewal of Tottenham Court Road will work in tandem with Crossrail accessibility enhancements to drive the re-development of existing sites and properties for retail, leisure and residential mixed uses. • More widely, the new Crossrail station will assist in supporting and driving development activity in the Mid-Town area centred on Holborn.
Farringdon	LB Islington	Work has already begun on Farrington Station for Crossrail, which involves significant connections to the existing rail network (both underground and Main Line). Farringdon station is at the heart of a complex area which includes commercial office spaces, creative industries in Hatton Garden, residential areas and is part of the wider Chancery Lane and Mid-Town area as well as bordering to the City. Farringdon also encompasses the mixed residential and employment areas for Islington, including Bunhill and Clerkenwell. Future development opportunity sites are evident including two of the largest privately owned development sites in the area, the Royal Mail Mount Pleasant Sorting Office and the Guardian Newspaper building. There is also the proximity of Farringdon to Smithfields Market where there are opportunities for development and renewal of the Market area.	• Core Strategy Adopted 2011) • The London Plan identifies Farringdon as an Area for Intensification. • The Council have prepared an Area Action Plan which is due to be adopted in 2013 which sets out policy guidance on the type of development which will be acceptable in and around the Crossrail station. • Guiding policies seek to promote growth and development of sites surrounding the station for commercial and retail uses. They also support the improvement of the public transport interchange between different modes • Public realm and landscape enhancements are supported in and around the station site to improve access and reduce congestion • The City of London Core Strategy also identifies the Farringdon/ Smithfield area for development intensification, proposing new floorspace for 2,500 jobs and 850 new residential units. It notes that the majority of this development should be in the Islington and Camden areas of the Area for Intensification.	Very significant potential and impact: • Crossrail will provide a substantial enhancement to the Farringdon area in terms of accessibility and quality of journey. • The immediate Station area has planning policies that already recognise the role that the new station will have and promote a range of future development particularly for commercial and retail uses. The Over Site Development at Farringdon (East) for some 11,000 sqm gross that is proposed will act as an immediate catalyst for commercial regeneration here and more widely for Smithfield Market in the longer term. • The wider position of Farringdon, will support the growth of employment and mixed use intensification of Farringdon Road, Hatton Garden and further afield in Clerkenwell and Holborn. • Enhanced access and interchange between Crossrail, the Underground and Thameslink will, together with the availability of sites suitable for mixed use re-development, serve to promote new residential and office development within the wider area.
Liverpool Street	City of London	Liverpool Street Station provides a direct link into the City of London's core office market and the heart of the UK financial services industry. The station is in close proximity and provides access to City Fringe locations including Shoreditch and Hackney. Liverpool Street is characterised by commercial office employment uses which predominate the land use mix. Other uses, including business hotel stock, retail and leisure services particularly at ground floor level, and a growing level of residential development.	• Core Strategy (Adopted September 2011). • Liverpool Street Station is situated within the North of the City policy cluster, with the Eastern Cluster area to the south and east of the station itself. • It is also within the defined City Fringe Opportunity Area • The Core Strategy identifies the benefits that Crossrail will bring, including its attractiveness for new development. • Policy supports proposals for new high quality office employment and residential growth supporting the City Fringe Opportunity Area	Some potential and impact: • Crossrail will support an improved level of access and quality of journey to Liverpool Street in the heart of the City. However, this area is already subject to many re-development, intensification and regeneration development proposals and recent completed developments in the station's Core Zone of Influence. • Crossrail will support future office floorspace within the Eastern Cluster area to the south of Liverpool Street.

Station	Borough/District	Market Character	Policy Drivers	Future Development Activity Potential
Liverpool Street	City of London	The area has already been subject to extensive development and intensification often at very high densities. There are well advanced plans in place for the regeneration and re-development of remaining opportunity sites in the Station's Inner Zone of Influence as well as the Outer Zone. Future development proposals are associated both with the growth of the office supply, but also further residential and related retail/leisure provision.	• Within the Eastern Cluster, policy identifies and promotes a number of tall building sites. New office floorspace is also emphasised and supported in this area to meet rising demands from a growing workforce and this is to be complemented by a mix of uses including retail and leisure development.	• The Over Site Development proposals at Blomfield Street will help secure new office floorspace development. • More widely, in the North of the City area and beyond, Crossrail will help support the continued change and re-shaping of City Fringe locations stretching north and eastwards towards Old Street and Shoreditch. Such locations are likely to see development activity promoting commercial office and residential mixed uses.
Whitechapel	LB Tower Hamlets	Whitechapel station is currently located in an area of Tower Hamlets with a strong heritage and conservation character. The station is situated near to the High Street and the Royal London hospital. The existing character and role / function of this area is complex with lower value and poor quality properties in close proximity to new-build developments. The density and intensity of uses here reflects the historic nature of this area of Central London.	• Core Strategy (Adopted 2011) • Polices within the Core Strategy seek to develop and regenerate Whitechapel High Street, a defined District Centre in the London Plan and Core Strategy. • The station area is within the London Plan's City Fringe Activity Area designation • Polices seeks to ensure that Crossrail will support Whitechapel to become a regional transport hub providing access to new residential development and employment opportunities given the proximity to the Olympic area and the major development opportunities provided by the Royal London Hospital • Polices also seek to integrate the development of the Crossrail station with wider environmental improvements to the public realm and public spaces • The Whitechapel Masterplan adopted in 2007 and updated in 2010 seeks to integrate the development of the station • The Core Strategy identifies growth in the area of some 1,340 new homes in Whitechapel and substantial retail growth as a function of Whitechapel's role as a District Centre	Very significant potential and impact: • Conducive, strongly supportive planning policy provides the basis for Crossrail to have a transformational effect in the Whitechapel area. • Policy supports residential and commercial employment opportunities and these are likely to be brought forward as part of mixed use development of larger sites and through the intensification of existing land uses. • Change driven by Crossrail will be supported by the range, value and availability of development sites and properties in close proximity to City and City Fringe area markets.
Stratford	LB Newham	Stratford, as part of the Lower Lee Valley Opportunity Area is identified as the most important single strategic regeneration initiative for London and an urban renewal challenge including the 2012 Olympic and Paralympic Games and their legacy. A masterplan has been prepared for the Stratford area. The vision for Stratford Central is for it to be an integral part of a thriving Metropolitan Centre, which will be a hub for surrounding communities; a gateway to the Olympics and Olympic Legacy; and a destination in its own right. A strong connection is to be formed between the existing Metropolitan Town Centre with finer grain retail, workspace and cultural activities, and Stratford City, with large scale new shopping and leisure facilities. This will create a vibrant place that will serve an international and regional community, given strategic transport connections already in place, whilst retaining a distinctive East End character.	• Core Strategy (Adopted January 2012). • London Plan identifies Stratford as part of the Lower Lee Valley Opportunity Area with potential for 30,000 jobs and 4,500 new residential units by 2016. • It is designated as a Metropolitan Town Centre in the London Plan and Core Strategy with the vision to create an Employment Hub. • Core Strategy policy identifies Stratford as a centre for strategic retail growth, focusing office and the borough's tallest building development in the area. • Opportunities for reinforcing Stratford as an office hub will be pursued, as well as opportunities for high density residential development and cultural, educational and community uses • The Strategic Sites of Stratford North, Stratford Waterfront, Olympic Quarter and Chobham Village share a vision to transform the area to become a vibrant high quality and sustainable mixed use city district that is fully integrated into the urban fabric.	Significant potential and impact: • Stratford has a very substantial development agenda that is set out in current planning policies. The Town Centre and area around the Crossrail station has already benefited from extensive development that has transformed the character, nature and role/function of the area. • Stratford's visibility and profile will become internationally recognised through the development of the Olympic Park and 2012 Games. When coupled with the excellent levels of accessibility and mode choice already available, Crossrail will support the regeneration and development, including intensification of remaining Town Centre opportunity sites and also have a further catalytic effect in the wider Canning Town, Royal Docks and rail corridor area stretching eastwards towards Maryland and Manor Park.

Station	Borough/District	Market Character	Policy Drivers	Future Development Activity Potential
Stratford	LB Newham		• Strategic sites are identified in the Stratford and West Ham area within the Core Strategy. These are considered to form the basis for the Plan's vision and development objectives. The strategic sites are: • Stratford North – a new residential neighbourhood • Stratford Waterfront – a mixed use residential, office and leisure area • Olympic Quarter – the Olympic Stadium and surrounding sites. • Chobham Village – a new residential neighbourhood • Stratford Central – retail-led development and other compatible Town Centre uses • Carpenters District – business, commercial employment, education and supporting uses • Sugar House Lane and Three Mills – employment, residential, community uses and a creative industries focus • Pudding Mill Lane – Mixed use employment uses (aligned to Crossrail station) alongside residential and a new Local Centre	
Isle of Dogs/Canary Wharf Station	LB Tower Hamlets	The new Crossrail station is located within the north dock of West India Quay and will provide the opportunity for high density building above which will provides new retail spaces, a public park and community facilities. The Isle of Dogs and particularly Canary Wharf are characterised by rapid, dense and very significant commercial, retail and residential development from the 1980s to date. Working to an overall masterplan and significant growth proposals in planning policy, the area has come to represent the next major growth phase for London's financial and business services as well as a sub-regional retail and leisure location. Residential accommodation is provided both within the immediate station surroundings, but also more widely at a number on riverside sites in the Isle of Dogs. Developer interest and particularly the objectives of Canary Wharf Group as the major landowner indicate that a further evolution in the character and nature of land uses within the Isle of Dogs is already underway.	• Core Strategy (Adopted 2011). • The London Plan and the Borough's Core Strategy seek to support the development of the Isle of Dogs by working in partnership with Crossrail, improving bus connections and access to the DLR network • Canary Wharf is defined as a Major Centre in the London Plan and Borough Core Strategy • The Isle of Dogs is identified as an area for new residential development alongside further expansion of commercial office and retail / leisure uses • An Interim Planning Guidance Area Action Plan was adopted in 2007 for the Isle of Dogs. This identified that the public transport capacity up to 2016 with Crossrail will provide adequate transport capacity following the anticipated development levels in the area • It is established in policy as an area suitable for the location of tall buildings and high density development • Policies encourages the development of up to 16,600sqm of new comparison retail floorspace including new provision within the Major Centre at Canary Wharf • The Council wish to retain and build the global reputation of Canary Wharf, while using the new transport links to better integrate with the surrounding local environment.	Significant potential and impact: • Isle of Dogs/Canary Wharf Crossrail station will deliver a substantial capacity and accessibility increase to the immediate station environment and more widely across the whole Isle of Dogs. The station's location within the centre of Canary Wharf will deliver additional route choices and inter-connectivity and provide the basis for future commercial, retail, leisure and residential development activity. • Large areas within the ownership and control of the Canary Wharf Group, coupled with established, proactive pro-growth planning policies and a high level of visibility of the area will support investment and development in future.

Appendix

Table 2: Western Surface Section – Development Market Potential

Station	Borough/District	Market Character	Policy Drivers	Future Development Activity Potential

Maidenhead	Royal Borough of Windsor & Maidenhead	Maidenhead is a major town within the Thames Valley. Its attractive setting and accessibility, with convenient links to London, Heathrow and the rest of the country, make it a focus for commercial and residential development.
		
		The Town Centre Area Action Plan sets out the basis for change, identifying a series of substantial future development opportunities as well as the creation of a new public transport interchange. The focus for future growth is on retail, office and residential development in identified sites.
			• Maidenhead Town Centre AAP (adopted September 2011).
			• Identified as an existing Major Town Centre
			• A new public transport interchange is to be developed at the existing railway station.
			• Identifies six key development sites in the town centre for a variety of retail, office and residential uses.
			• Broadway area:
			  • 25,000 sqm retail floorspace
			  • 6,000 sqm offices
			  • 190 residential units
			• West Street:
			  • 21,000 sqm offices
			  • 310 residential units
			• ork Road:
			  • 14,000sqm offices
			  • 160 residential units
			• Railway Station
			  • 15,750 sqm offices
			  • 50 residential units
			• High Street East/ ork Stream
			  • 6,500sqm offices
			  • 100 residential units
			• Stafferton Way
			  • 9,000 – 15,000 sqm offices
			  • 4,000 sqm non-office employment
			• High Street and Nicholson Centre to remain the focus for retail development.
				Significant potential and impact from Crossrail:
				• The existing railway station and Town Centre location will be enhanced by improved access and reduced journey times by Crossrail.
				• The direct connection between Maidenhead and Heathrow will be significant in respect of promoting residential development for employees of the Airport, reinforcing the existing cluster of Heathrow employees living in and around Maidenhead
				• Significant development opportunities available within the immediate station area and more widely in the Town Centre.
				• Conducive planning policy supportive of growth.

Station	Borough/District	Market Character	Policy Drivers	Future Development Activity Potential
Taplow	South Bucks District	Taplow is situated in the west of South Bucks District and is most closely connected in economic and physical terms to Maidenhead. The station area is set within a tightly drawn urban boundary and is more widely surrounded by Green Belt land.	• Core Strategy adopted (February 2011) • Mill Lane, Taplow (to the west of the existing station) is identified as a 23 HA Green Belt development opportunity site suitable for residential, commercial, hotel and related open space provisions.	• Low potential and impact: • Station area is within small settlement surrounded by Green Belt. Established character of the area indicate limited opportunity for development influenced by Crossrail
Burnham	South Bucks District	Self-contained urban area in the west of South Bucks District. An established area of residential and employment activity, more widely connected to economically, physically and in development market terms to Slough. The inter-relationship with Slough is particularly strong. The station area is within a largely residential area, with commercial employment land to the south and is situated in Slough Borough rather than South Bucks District.	• Core Strategy adopted (February 2011) • Burnham is identified as one of three principal areas for new development in South Bucks District. 183 new residential units 2006 – 2026. • Future development capacity in Burnham is noted to be low by the Core Strategy due to the existing densities of development although there is capacity within the town centre for future comparison goods shopping (1,250 sqm) and employment floorspace. • Shops and services provide for local needs with the wider catchment taken up by Maidenhead and Slough. • Burnham Station itself is situated in Slough Borough. The Core Strategy was adopted in December 2008 and	• Some potential and impact: • Development opportunities are identified and planning policy is conducive, but Burnham Station area has a wider relationship with Slough market. • Opportunities are likely to be limited to small scale residential and related retail developments.
Slough	Slough Borough Council	Slough is a compact urban area developed along the east-west road and rail corridor. It is a major town with an existing higher order retail, leisure and commercial offer. The town centre, adjacent to Slough station is identified for comprehensive regeneration and re-development over the period to 2026 to support new retail, employment and residential uses, working in tandem with Slough Trading Estate particularly. The outward expansion of new development in Slough is considered to be highly constrained and will drive market demand for the few remaining development opportunity and intensification sites.	• Core Strategy adopted (December 2008) • Slough station is identified as a Regional Transport Hub • Slough Town Centre is a Regional level shopping centre and identified as a centre for major change with a comprehensive regeneration programme proposed over the period to 2026. Crossrail is noted to form one of the principal driving factors in supporting this enhancement. • The spatial strategy will build upon major town centre regeneration schemes such as the Heart of Slough project and promote a sustainable, comprehensively planned, high-quality, high-density, mixed-use environment and ensure that the necessary infrastructure and community facilities/services are located in highly accessible locations. • 3,000 new residential units in the Town Centre by 2026 (densities above 70 dph). • 10,000 new jobs to be created in the Town Centre through use of existing floorspace and new permissions yet to be constructed.	Significant potential and impact: • Comprehensive programme of town centre regeneration is identified with supportive planning policy and identified development opportunity sites. • Slough Town Centre is a regional hub and aligned to Slough Trading Estate. • Constrained opportunities for outward expansion of Slough will drive increased focus and density of development in town centre and around the station. • Enhanced journey time and accessibility to Central London markets provided by Crossrail will assist in changing perceptions of Slough for residential, commercial office and retail investment.
Langley	Slough Borough	Langley is an existing urban settlement forming part of a continuous belt of development with Slough Town Centre to the West. Existing land-uses in Langley are dominated by commercial employment space at Langley Park and Langley Business Centre. Further to the south, Langley is a characterised as an existing residential location. To the north, open countryside protected by Green Belt remains pre-dominant. The outward expansion of new development in Langley as part of Slough Borough is highly constrained and will drive market demand for the few remaining development opportunity and intensification sites.	• Core Strategy adopted (December 2008) • Langley is not identified specifically for new residential or retail/commercial employment development. New residential development is to be focused in Slough Town Centre and identified urban extensions elsewhere in the Borough. New residential development opportunities will therefore be limited to infill development, or schemes that depart from the adopted Core Strategy policies. • The existing employment floorspace provided in Langley is identified and protected in the Core Strategy as Existing Business Areas. The Policy resists the loss of any such space, which seeks to control and limit the change of use of employment land for other purposes.	Some potential and impact: • Policy basis provides for growth and development, but Langley is not identified as a principal focus for future growth. • Development arising from Crossrail is likely to be through site intensification and infill for residential purposes.

Station	Borough/District	Market Character	Policy Drivers	Future Development Activity Potential
Iver	South Bucks District	Iver station is situated at some distance from Iver Heath and village centre. An extensive residential area lies to the south, with the railway line forming a boundary to development to the north. Beyond the railway, the area is characterised by greenfield land, within the Green Belt and substantial existing commercial employment estates to the north-west and north (The Ridgeway Trading Estate). The M25 motorway is located some 500m to the east.	• Core Strategy adopted (February 2011). • The area surrounding the station, other than the existing residential and commercial employment locations are within the Green Belt and therefore protected from inappropriate development. • A site for a Multi-modal facility is identified in the Core Strategy Proposal Map, on a site bounded by Hollow Hill Lane and Mansion Lane. • Development in and immediately surrounding Iver station would be possible as part of intensification of existing residential uses, but sites are not specifically identified.	Low potential and impact: • Iver Station is set within a small residential area, divorced from Iver Heath and village centre and surrounded by Metropolitan Green Belt land. • Opportunities for development are likely to be restricted to small residential infill and intensification schemes where sites are available/ identified.
West Drayton	LB Hillingdon	West Drayton station is within the existing, defined iewsley / West Drayton District Centre area. The station area is characterised by existing retail, commercial and residential development at an urban density. The centre supports 29,336 sq m gross of retail floorspace, the majority of which is located in a linear fashion along High Street/ Station Road. There are two designated Primary Shopping Areas and four Secondary Shopping Areas within the defined town centre. The centre also has over 12,000 sqm. of office space, although much of the stock is ageing. Whilst there are a number of single occupiers, much of the remaining space for larger units has been converted into smaller units and serviced suites. Additional development is supported through the LDF Core Strategy but in a manner consistent with the objectives of the Heathrow Opportunity Area within which West Drayton fits. The Hayes West Drayton Corridor extends from West Drayton to Hayes Town Centre through to the A312 to Springfield Road. Where traditional manufacturing has left the area, logistics and distribution activities have increased, benefiting from its proximity to Heathrow Airport.	• Core Strategy Submission version post Examination (May 2012) • West Drayton is identified as a District Centre suitable for an increase in retail, leisure and related town centre uses. • 1,650 sqm of additional retail floorspace is supported in the Core Strategy. • The Core Strategy confirms that iewsley & West Drayton is a suitable location for mixed-use development with modern business accommodation, including affordable units. • The Centre sits within the Heathrow Opportunity Area (which also includes Stockley Park and Hayes) identified in the London Plan. • The Plan encourages the development of clusters of economic growth and seeks to create some 35,000 jobs in the Heathrow Opportunity Area by 2016 and some 5,800 residential units. • The Hayes-West Drayton corridor within the Heathrow Opportunity Area contains redevelopment opportunities for a range of potential uses, including small business parks, logistics and mixed-uses.	Some potential and impact: • West Drayton is an identified town centre and has conducive policy for further retail, leisure and related town centre uses. • Residential development may form part of mixed use development proposals in the town centre. • There is more significant development potential more widely in the Hayes-West Drayton corridor of the Heathrow Opportunity Area, however this is at some distance from the Crossrail station and likely to be influenced / shaped by more general West London growth pressures and the predominant effects of Heathrow Airport on the surrounding sub-region.
Heathrow Airport	LB Hillingdon	Heathrow is one of the world's largest international airport hubs and has an extensive economic and physical hinterland forming a strong cluster of commercial, hotel and related employment activities. The Airport activities (both on-site and more widely) provide the foundation for the economy as a major employer of more than 68,000 people and a supply chain lynch pin. The Airport has been subject to extensive new development including the new Terminal Five and enhancements to the older terminals and facilities. Future expansion of the Airport including new runway capacity or terminal facilities remains the subject of extensive debate and a position taken by the current Government that no further runway capacity should be provided at Heathrow.	• Core Strategy Submission version post Examination (May 2012) • Heathrow Airport is identified as the centre of the Heathrow Opportunity Area in the London Plan. The London Plan supports the role and function of the Airport and its surroundings for aviation and economic growth purposes. • The Hayes-West Drayton corridor within the Heathrow Opportunity Area contains redevelopment opportunities for a range of potential uses, including small business parks, logistics and mixed-uses. • Outside the boundary there is a requirement to balance demand for hotel and employment uses in order to manage economic growth. The designated employment areas along Bath Road are protected as Locally Significant Industrial Locations, while the Heathrow perimeter, specifically Bath Road, BA Waterside, Harmondsworth and along the South West Road, will be promoted as key office locations.	Some direct development potential and impact arising from Crossrail, but wider enhancements of connectivity of the Airport to Central London and through transit to the west (particularly to existing residential communities around Maidenhead and Slough for whom Heathrow is their workplace) and east of London will have indirect economic benefits and increased accessibility for future employment: • Conducive planning policy and existing supporting infrastructure provide the basis for growth of Heathrow Airport and its hinterland.

Station	Borough/District	Market Character	Policy Drivers	Future Development Activity Potential
Heathrow Airport	LB Hillingdon		• There is particular pressure on employment land for hotel uses in the Heathrow area and hotel development will be directed to locations outside the airport boundary and outside of designated employment areas. • The capacity estimates for the Opportunity Area represent the broad potential of the area and will be subject to more detailed testing. • LB Hillingdon supports the Opportunity Area designation through its Core Strategy which looks to focus on future employment creation (some 35,000 new jobs are proposed) along with wider linkages to the network of existing centres in Hayes, West Drayton and at Stockley Park.	
Hayes & Harlington	LB Hillingdon	Hayes is an established District Centre with long-standing employment sites and related commercial floorspace connected to its close juxtaposition with Heathrow Airport. The existing centre caters mainly for more local retail convenience needs and has an existing office supply floorspace of mostly secondary quality. The Centre has some 30,900 sq m gross of retail floorspace and 40,000 sqm. of office space. The introduction of the Heathrow Connect Service has created greater links and attracted investment. While there have been successes in recent years with the arrival of businesses associated with Heathrow and the entertainment sectors, there remains a significant supply of high quality office space. There has already been significant developer interest in Hayes with major new investment at London Gate (Blyth Road) and Hyde Park (Millington Road). Ballymore's High Point development is a mixed-use scheme with a range of affordable housing provision aimed at housing local families. The character of the station area and wider surroundings has been subject to change as new mixed use development proposals have been promoted, including the former Thorn EMI site and Blyth Road with greater levels of residential development introduced.	• Core Strategy Submission version post Examination (May 2012) • The Town Centre is identified as a District Centre and is protected for a range of appropriate uses compatible with the centre, including retail, leisure, commercial employment and residential development. • The London Plan identifies a need for 8,890 new homes up to 2016 across the Borough, with residential development capable of forming a compatible use within the defined Town Centre areas. • The London Plan Heathrow Opportunity Area identifies that Hayes town centre provides scope for the creative/media sector and for SME workspace. • 3,350 sqm additional retail floorspace is supported in the Submission Core Strategy.	Significant potential and impact: • Crossrail station connects directly to the town centre which has a supporting policy basis for new development and the provision of new retail, residential and commercial office development. • Protection of town centre uses and activities through policy will direct future growth towards vacant and under-used sites, including re-use of former commercial office floorspace for residential purposes.
Southall	LB Ealing	Southall is identified as a District Retail Centre serving a predominantly local and specialist retail market. It is characterised by a high level of independent shops and businesses. The surrounding area of the station has a wide mix of well established residential areas, Sikh Temple, education, employment and retail facilities. To the West is the Southall Gas Works site which is a very substantial development opportunity within the ownership of National Grid.	• Core Strategy (Adopted 2012) • Southall Gas Works, as part of the Southall Opportunity Area has the identified capacity for 4,000 homes and 2,000 new jobs within the London Plan. • The Opportunity Area is identified as having scope to enhance the local environment and complement Southall's current strengths, including its ethnic identity and links with South Asia, by introducing a more diverse retail offer and securing a substantial uplift in housing capacity as well as improvements in social infrastructure.	Significant potential and impact arising from Crossrail: • Enhanced station and improved journey time/quality will assist in regeneration and intensification of Southall District Centre. • Existing, conducive planning policy and identified sites/properties for re-development will support future development potential. • Southall Gas Works site within the Southall Opportunity Area remains an un-developed brownfield site of very significant capacity. Strengthened transport links and inter-relationship of the site to Southall station will assist in supporting mixed use, residential-led regeneration of this site.

Station	Borough/District	Market Character	Policy Drivers	Future Development Activity Potential
Hanwell	LB Ealing	Hanwell station is situated within an established residential area of Ealing and close to the Hanwell District Centre. The Station area is within a defined Conservation Area, and more widely the character and quality of the existing pattern of development limits the extent of larger future development opportunities. Hanwell is a mixed area with a substantial residential community, while the local retail centre provides over 3,500 jobs. More widely, Hanwell is within proximity to Ealing General Hospital which is both a major employer, centre for health care provision, but potentially also a future regeneration and development opportunity.	• Core Strategy (Adopted 2012) • Hanwell is defined as a District Centre with the opportunity for an additional 3,300 – 5,600 sqm of retail floorspace and 109 new residential units • It is not identified as a major location for future growth or development within the Borough. • The existing retail provision will be managed to consolidate provision and ensure there is a mix of uses including residential use. • The Core Strategy identifies the opportunity to enhance access to the Station and the role that Crossrail may play in this respect. • Policies also seek to promote and respect the existing heritage and character of the Hanwell area.	Low potential and impact: Hanwell has identified opportunities for development and current planning policy supports growth, but this is set against the established residential character, evident conservation and heritage issues found within the immediate station environment and the limited range of development sites in Hanwell Centre and more widely in the Station's Zone of Influence. Enhanced journey time and quality of service will support market value and activity and interest for primarily residential development.
West Ealing	LB Ealing	West Ealing Station is within close proximity to existing retail activities, including a substantial Waitrose store and set within an area of substantial residential development. Recent residential developments have increased the density of homes around the Station, including the creation of mid and higher rise residential blocks immediately adjacent to the station. More widely, West Ealing has an extensive, linear retail high street stretching west to east, towards Ealing Broadway. It is characterised by independent and multiple retailers with existing residential areas to the north and south of the High Street. The Green Man Lane estate represents a large residential regeneration opportunity situated to the north of the High Street towards its western end.	• Core Strategy (Adopted 2012) • West Ealing is defined as a District Centre in the London Plan and the Core Strategy. It is particularly supported for value and convenience goods together with leisure and supporting food and drink. • Consolidation and support for the existing commercial office offer situated on Uxbridge Road (between West Ealing High Street and Ealing Broadway) is supported to ensure there is sufficient, high quality commercial floorspace provision in the Borough to continue to attract major occupiers. • The Green Man Lane estate is identified for comprehensive renewal with plans for a further 242 new homes to be constructed as well as the re-provision of the previous level of housing.	Some potential and impact: • West Ealing is an identified centre and the Crossrail station is in close proximity. Potential is limited by the lack of available large sites for major development in the immediate vicinity of the Station. Recent completed residential and retail developments have already intensified the use and activity on sites in close proximity to the station. • More widely, Crossrail's enhanced service and journey time improvements will support residential development and intensification coupled to existing initiatives to regenerate the Green Man Lane Estate in West Ealing. • The station's distance from existing commercial office floorspace on Uxbridge Road indicates that Crossrail's development is unlikely to have a significant effect on re-use or conversion of commercial floorspace to the western end of Uxbridge Road.
Ealing Broadway	LB Ealing	Ealing Broadway is an established Metropolitan Town Centre with an extensive retail, employment and leisure offer. It is anchored by multiple retailer representation as well as Ealing Studios (to the south of the Centre) and by extensive commercial office employment along Uxbridge Road (including Ealing Council offices). The Centre is the largest in the Borough and within the top 10 for London as a whole. Plans for regeneration and development of the Centre have been advanced over the past five years with new residential apartments under construction and newly completed at Dickens ard on Uxbridge Road. Other projects include the proposed Ealing Broadway scheme which encompasses the redevelopment of a city block centred on Ealing Broadway station and part of the primary retail area. The former Ealing Cinema site offers a further opportunity. More widely, Ealing Broadway is situated in close proximity to well established residential areas and greenspaces of Walpole Park and Ealing Common.	• Core Strategy (Adopted 2012) • Defined as a Metropolitan Town Centre in the London Plan and Borough Core Strategy. • Offers significant sites for regeneration and re-development, including mixed use schemes with substantial levels of new residential units, enhanced retail offer and supporting leisure uses. Key sites are clustered within the Town Centre area of the Broadway, Bond Street and extending westwards along Uxbridge Road. • Substantial areas surrounding Ealing Broadway station are included within defined Conservation Areas and there are a number of listed buildings and others of local architectural merit. • The Core Strategy directs that new offices in the Borough should be focused within the Ealing Broadway area (including Uxbridge Road) to retain a critical mass.	Very significant potential and impact: • Ealing Broadway Metropolitan Town Centre has advanced policies and plans that identify a significant capacity and appetite for retail, leisure, commercial and residential development. • Land and developer interests are already active within Ealing Broadway town centre and the enhancements to accessibility and connectivity that Crossrail will bring suggest that the immediate station area and the wider Town Centre area stretching west into Uxbridge Road will benefit from growing demand as current mixed use developments are completed prior to the opening of Crossrail.

Station	Borough/District	Market Character	Policy Drivers	Future Development Activity Potential
Ealing Broadway	LB Ealing		• The following are proposed: • 3,200 new residential units • 90,000 sqm new office floorspace • 50,000 sqm new retail floorspace • 6,500 new office based jobs	
Acton Main Line	LB Ealing	Acton Main Line sits within a complex area of existing employment and industrial activities, residential areas and close to the A40 and Park Royal areas of Ealing. The station is located some distance from Acton District Centre and the two locations are not strongly connected in an economic or functional sense, Its characteristics suggest that there is the opportunity for regeneration and renewal of existing sites at a modest scale, to encourage a wider mix of uses, while protecting specific activities such as the cement/aggregates works. Work to enhance accessibility and linkages to surrounding areas will support the definition and role/function of the Acton Main Line area.	• Core Strategy (Adopted 2012) • Identified as one of the focal points for new residential development in the Borough as part of the A40/ Park Royal Corridor • Promote the mixed use regeneration of the site immediately to the south of the existing station • Retain the cement/aggregates works to the north of the station as an important railhead facility for the distribution of construction materials in London. • Create a sense of place and identity around the station as part of an overall regeneration for Acton residents.	Some potential and impact: • Opportunities exist for redevelopment and intensification of land uses in and around the Crossrail station; however these are likely to be at a modest scale due to the station's distance from Acton Town Centre and the dislocation of the station from the A40/Park Royal area. • Planning policy is supportive of future development, but also seeks to retain the cement/aggregate works to the north of the station limiting redevelopment potential.

Appendix

Table 3: Eastern Surface Section – Custom House to Abbey Wood: Development Market Potential

Station	Borough/District	Market Character	Policy Drivers	Future Development Activity Potential
Custom House	LB Newham	Custom House is a defined neighbourhood area within the wider Royal Docks part of Newham. The area has an extensive and complex history as a commercial and industrial area within the Royal Docks. With the clearance of port-activities and industrial processes, there has been a gradual process of redevelopment for new uses, including residential, commercial, leisure and education as well as for conferencing/exhibition space at Excel and the University of East London. A focused and targeted approach to regeneration and inward investment into the area has shifted the nature and character of the area towards a broader based economy and a centre for development (alongside Canning Town to the north). With expansion of the Docklands Light Railway, the growth of Excel and the London-level focus on growth of the Royal Docks, Custom House and more widely Canning Town have a critical position in the future growth of this area of East London as it provides land/sites and a mixture of heritage and modern development capable of attracting new investment.	• Core Strategy (Adopted January 2012). • Within the identified Arc of Opportunity and forming part of the significant Canning Town and Custom House programme of redevelopment and regeneration. • Custom House forms part of the wider Royal Docks Opportunity Area (Defined in the London Plan) which is a focus for regeneration and new development, including some 9,160 new dwellings and 11,000 new jobs. Custom House will form one of an inter-connected series of neighbourhoods within the Royal Docks area. • Core Strategy policy proposes that Custom House will become an intensified residential commercial/business space, making use of Crossrail's potential which will form the nucleus of a renewed and expanded local centre with improved physical and functional links to ExCeL, and open space linking to the proposed 'Activity Street' to the north-west, and through a series of open spaces to Cundy Park to the south-west. • Development is to be intensified at the most accessible locations in the Royal Docks, including Canning Town and Custom House making the best use of existing land and sites. • Custom House station is proposed to connect with the existing Freemasons Local Centre to become an enhanced local centre marked by one or two taller buildings, with an offer directed at and welcoming to both local residents and visitors to ExCeL and other Royal Docks destinations.	Significant potential and impact: • Custom House is set within the Canning Town and Royal Docks area. It is the focus for sustained and extensive regeneration and planned new investment. Planning policy is wholly aligned to this growth agenda and supportive of growth. • Custom House Crossrail station will deliver a substantial capacity and accessibility increase above that currently available. It will benefit the residential and commercial market in the immediate station Zone of Influence and more widely across the whole Royal Docks area. • The station's location adjacent to Excel conference/ exhibition space and the availability of large sites for development provide the basis for very significantly increased development market activity for residential and commercial employment uses in tandem.
Woolwich	LB Greenwich	Woolwich Crossrail station will be built initially as a box station development with the ability to be developed into a full station in the future. Woolwich is currently serviced by the DLR and the mainline railway network and is the Borough's main centre for shopping and community services and office employment. It is increasingly a place where people want to live as a result of new residential developments such as the Royal Arsenal. The Station's location adjacent to Woolwich Town Centre will help support town centre residential and mixed uses.	• The Draft Core Strategy is due to be published in autumn 2012. • Saved polices of the UDP (2006) apply • The polices within the emerging Core Strategy provide specific polices on the development of Woolwich town centre and the development of more comparison retail and complementary town centre uses that can contribute to the evening activity within the centre. • Polices will also encourage the appropriate facilities which have the potential to extend the opening hours of the Town Centre; encourage development that will enhance the vitality of the Town Centre and create an evening economy.	Very significant potential and impact: • Crossrail provides a transformational change in the level and quality of accessibility to Woolwich and its wider area. • Planning policy is conducive to new development growth and activity within the immediate Crossrail station environment and more widely in terms of supporting Woolwich to growth into a Metropolitan Town Centre. The improved access should assist the Town Centre to extend its catchment, raise its profile and visibility to the occupier and investor market and support mixed use development activity.

Station	Borough/District	Market Character	Policy Drivers	Future Development Activity Potential
Woolwich	LB Greenwich		• The London Plan recognises Woolwich's ability to become a Metropolitan Town Centre • Crossrail has the opportunity to help achieve this and improve the supply and demand of the town centre's offer	• Residential development opportunities will likely be of interest to the development market given the substantial journey time reductions to Central London, City and Isle of Dogs above that currently achievable. These are likely to be focused in both the Royal Arsenal development scheme and through a direct development opportunity for new high density residential accommodation on a site adjacent to the Crossrail station in the Town Centre.
Abbey Wood	LB Greenwich	Abbey Wood is characterised by residential estates of various quality and representing development over the whole post-war period. This residential area is very extensive, surrounding the station and stretching both south and northwards through Thamesmead to the River Thames. The area has been subject to residential development and a range of densities, interspersed with commercial employment uses, education facilities such as the Bexley Business Academy and HMP Belmarsh. The Abbey Wood Village provides a local service hub with a small range of shops and services. Bostall Woods and Lsenes Abbey Woods are extensive areas of public open space in the wider area to the south of the Crossrail station.	• The Draft Core Strategy is due to be published in Autumn 2012 • Saved polices of the UDP (adopted 2006) apply • The UDP has no specific polices on the development of Abbey Wood but that the development will help the local population access the rest of London and ease congestion on the transport network • The Draft Core Strategy and the London Plan identifies Abbey Wood as an Opportunity Area • The Council believe that the development of Abbey Wood will be led by the development of the Crossrail station as this will improve the accessibility both to Greenwich and to the rest of London • Polices also state that Abbey Wood Station may be an appropriate local for tall buildings	Very significant potential and impact: • Abbey Wood will benefit from a very substantial improvement in transport accessibility and journey time with the opening of the Crossrail line. • The London Plan and Draft Core Strategy provide a strong guide and steer to the level of development anticipated and promoted in Abbey Wood. This policy basis includes the use of greater densities of development around the station itself in the Core Zone of Influence. • The new and enhanced level of access from Crossrail will benefit the wider area beyond the immediate station zone with positive market effects to support the development, intensification and renewal of poor quality residential estates and out-dated commercial employment floorspace. • There is therefore a clear basis to expect substantial development market activity primarily for residential uses as the Crossrail route is constructed and after opening.

Appendix

Table 4: Eastern Subsurface Section: Maryland to Shenfield: Development Market Potential

Station	Borough/District	Market Character	Policy Drivers	Future Development Activity Potential
Maryland	LB Newham	Maryland is identified as the gateway to Stratford Metropolitan Town Centre. The role of Maryland is to be enhanced by its designation as a Local Centre to provide an enhanced level of local retail and services infrastructure and to capitalise on the development of Crossrail. The area is currently characterised as an existing residential area on the border of Stratford Town Centre. It has a limited development opportunity given the pattern and built-up nature of existing uses. Nevertheless, the Borough recognises the role and function that Maryland can play in future with enhanced accessibility arising from Crossrail.	• Core Strategy (Adopted January 2012) • Designated as a Local Centre serving local and daily retail service needs and employment opportunity to capitalise on Crossrail development	Some potential and impact: • Maryland's character and role/function will be supported and enhanced by Crossrail, but new development opportunity sites are limited and future growth will need to respect the character and nature of the existing land use pattern. • Residential development is likely to form the majority of future development activity arising from Crossrail's enhanced transport accessibility.
Forest Gate	LB Newham	Forest Gate is characterised as an existing, predominantly Victorian and Edwardian residential areas supported by local level retail facilities and community infrastructure within the defined District Centre. The nature of the area suggests that future development opportunities will be for residential uses capitalising on the re-use of existing sites and particularly the redevelopment of 1960s/1970s office floorspace on Romford Road. New development in Forest Gate forms part of the managed change approach set out in the Borough's Core Strategy Forest Gate has a strong functional and service relationship with Stratford Town Centre to the West.	• Forest Gate Supplementary Planning Document (2010) forms the detailed guidance for future development in the area. • Forest Gate is defined as a District Centre in the London Plan and the Core Strategy. • The Core Strategy identifies a managed change approach to Forest Gate where new development is not prioritised or focused, but the principles of regeneration and re-use/best use of existing sites is recognised. • The Core Strategy establishes that Forest Gate town centre will become an attractive and vibrant centre, with cafes, community and cultural facilities and independent shops together with a small to medium-sized foodstore to add to the mix and quality of offer. Alongside commercial uses, new town centre housing will extend safer, more convivial activity into the evening. The town centre environment and new development will complement, integrate with and reinforce its attractive heritage identity and popularity of local neighbourhoods. • Most change is focused close to the Station and on existing residential estates.	Some potential and impact: • Planning policy is established and conducive to new development respecting the character of this predominantly residential area. • Residential development is likely to form the majority of future development activity arising from Crossrail's enhanced transport accessibility to Forest Gate. The re-development of existing, dated commercial office floorspace on Romford Road represents one the most likely re-development and intensification opportunities that Crossrail will assist in catalysing.
Manor Park	LB Newham	Manor Park is a residential area coupled with commercial and retail facilities on Romford Road. Large scale development is not promoted within the Borough Core Strategy as the policy promotes growth elsewhere in Newham. The characteristics of Manor Park indicate that most change will be around the new Crossrail station which is anticipated to redefine and reinvigorate Manor Park as a defined Local Centre, creating a more significant focus to the area for the local community.	• Core Strategy (Adopted January 2012) • Manor Park is a defined Local Centre providing daily retail and community services/facilities. • Redevelopment is not promoted in the Core Strategy to an extensive degree and the Plan recognises the dominance of other centres including Stratford, Forest Gate and Ilford more widely.	Some potential and impact: • Manor Park's existing, developed residential character will limit large scale new development opportunities arising from Crossrail.

Station	Borough/District	Market Character	Policy Drivers	Future Development Activity Potential
Manor Park	LB Newham	Associated regeneration benefits and smaller 'windfall' sites will support the public realm, including open space provision and conservation and enhancement of heritage assets, including the Conservation Area close to the Station, where they can contribute to the desirability of the area to live. Most change and innovation will be focused along key routes where character has been eroded over time.		• The Borough Core Strategy policies do not promote Manor Park as a growth location; nevertheless some limited residential intensification and infill developments can be anticipated capitalising on the improved journey times and quality provided by Crossrail.
Ilford	LB Redbridge	Ilford is characterised as a Metropolitan Centre surrounded and close linked to existing residential areas. It is one of the largest town centres in London and the station is highly accessible and linked to the Centre. The range and mix of retail and leisure facilities corresponds with its status, including multiple retailer representation as well as a broad mix of leisure and community facilities. The existing commercial office stock is extensive but with evidence of significant over-supply and stock quality issues due, in part to the age of the stock and the loss of former major employers over time. Ilford provides the majority of office space within LB Redbridge and the protection/promotion of the best space coupled with the identification of alternative uses for other space is promoted through the Core Strategy and Ilford Area Action Plan. Ilford Town Centre forms the western end of the Crossrail Corridor identified in LB Redbridge that stretches eastwards encompassing under-used commercial land/sites to Chadwell Heath.	• Core Strategy (Adopted March 2008) • Crossrail Corridor Area Action Plan (Adopted September 2011) • Defined as a Metropolitan Town Centre in the London Plan and the Borough Core Strategy. • Defined as an Opportunity Area in the London Plan with significant capacity for new housing and employment growth. • Policy provides the basis for extensive development including 23,000 sqm of new retail floorspace, up to 4,500 residential units (3,300 by 2016). • The Core Strategy sets out that Ilford Town Centre will strengthen its role as a prosperous Metropolitan Centre, providing the full range of commercial and retailing facilities to Borough residents, as well as becoming a leading location for businesses in London. A major increase in residential population will occur in Ilford and some other town centres and careful attention will be paid to match this with delivery of physical and social infrastructure and improved transport and access. • The Core Strategy vision for Ilford identifies the major, pivotal role that the Town Centre sites will play in driving forward new development. The sites combine a range of existing properties for change of use / redevelopment as well as substantial intensification opportunities making greater use of height and massing. • Ilford Town centre is identified as forming the western end of the Crossrail Corridor Area Action Plan area and the basis for driving the enhancement of the Corridor stretching eastwards across a large area of under-utilised and vacant commercial employment sites.	Significant potential and impact: • Crossrail will support the growth of Ilford through a change in the investment, developer and residential perceptions of the centre. • The close proximity of the Crossrail station to the Town Centre will reinforce links will be beneficial to future retail and commercial vitality and viability of development within the area. • Planning policy is very well established with the Core Strategy and Town Centre AAP providing a clear and direct guide to the site opportunities, levels of development and use of increased densities in the Town Centre and around the station to promote future growth. • Residential development is likely to be particularly supported with conducive planning policy, the availability of sites for re-development and intensification and the accessibility enhancements that Crossrail will bring.

Seven Kings	LB Redbridge	Seven Kings is an identified Local Centre providing a range of daily convenience retail and community facilities needs. The station area is characterised as a densely populated, and well established residential area. The pattern of land uses and activity are well established and there is a high density of existing land use here.
		
		Seven Kings Local is centred on the High Road and has positive characteristics which can be built upon, including a strong local identity. It is the area with the most potential for change and regeneration within the Crossrail Corridor AAP group of stations in LB Redbridge (excluding Ilford Town Centre). Improvements to the attractiveness and vibrancy of the centre are considered paramount to the revitalisation of this character area, but the areas of high townscape quality at the eastern and western end of the character area are to be protected from unsympathetic change.
			• Core Strategy (Adopted March 2008)
			• Crossrail Corridor Area Action Plan (Adopted September 2011)
			• Seven Kings is identified as a Local Centre in the London Plan and Borough Core Strategy.
			• The Area Action Plan allocates several Opportunity Sites for future development within five character areas:
			  • East of Ilford
			  • Seven Kings Local Centre
			  • Goodmayes Local Centre
			  • Grove
				Some potential and impact:
				• Seven Kings has identified development opportunity sites within the Crossrail Corridor AAP. The Local Centre's identification as a focal hub for substantial additional residential and other development will support market development activity.

Station	Borough/District	Market Character	Policy Drivers	Future Development Activity Potential
Seven Kings	LB Redbridge	Seven Kings was named as one of 36 "Great Spaces" in November 2009. The centrepiece of proposals at Seven Kings are the creation of an attractive square and focal point in front of the railway station. Development opportunity sites are identified in the Crossrail Corridor AAP which provides a range of opportunities for future residential and mixed use development, making the best use of existing sites and changing under-used commercial employment sites to mixed uses.	• Chadwell Heath • The spatial vision in the AAP for Seven Kings sets out that Seven Kings will become a vibrant and attractive place to live and work, with an improved retail offer, tree lined streets, an inspiring new landmark building and new public space at the heart of the centre to create a 'focal hub'. This will build on an area of high quality townscape centred around Seven Kings Station. • The APP identifies that up to 1,500 new residential units can be provided along the whole Crossrail Corridor area, of which 421 will be within the Seven Kings area. Development of residential schemes will usually be as part of a mixed use approach to sites, particularly in close proximity to the Crossrail stations but in the wider area, standalone residential development is acceptable. • The AAP protects and seeks to enhance retail and service provision for Seven Kings Local Centre.	

Goodmayes	LB Redbridge	Goodmayes is a Local Centre set within an established residential are to the south of the station. To the north, there are larger blocks of retail and commercial activity leading to the High Road. The pattern of land uses and activity are well established and there is a high density of existing land use here.
		
		Development opportunity sites are identified in the Crossrail Corridor AAP which provide a range of opportunities for future residential and mixed use development, making the best use of existing sites and changing under-used commercial employment sites to mixed uses.
		
		Within Goodmayes Local Centre there are opportunities to further enhance the centre by connecting it to new, high quality development on the Retail Park and High Road and improving connectivity and linkages to local parks, open spaces and community facilities.
			• Core Strategy (Adopted March 2008)
			
			• Crossrail Corridor Area Action Plan (Adopted September 2011)
			
			• The Area Action Plan allocates several Opportunity Sites for future development within five character areas:
			
			  • East of Ilford
			  • Seven Kings Local Centre
			  • Goodmayes Local Centre
			  • Grove
			  • Chadwell Heath
			
			• The AAP spatial vision sets out that Goodmayes will be revitalised, with new high quality buildings with a mix of uses, and a safer and attractive pedestrian environment ensuring greater connectivity between the High Road and the railway stations. New employment uses will provide opportunities for start-up businesses and investment into the area
			
			• The APP identifies that up to 1,500 new residential units can be provided along the whole Crossrail Corridor area, of which 585 are proposed in Goodmayes. Development of residential schemes will usually be as part of a mixed use approach to sites, particularly in close proximity to the Crossrail stations but in the wider area, standalone residential development is acceptable.
			
			• The AAP protects and seeks to enhance retail and service provision for Goodmayes Local Centre.
				Some potential and impact:
				
				• Goodmayes has identified development opportunity sites within the Crossrail Corridor AAP for up to 585 residential units.
				
				• Crossrail may also support the revitalisation of the station area as the adopted planning policy encourages a mix of uses including new commercial employment floorspace as a counterpart to new residential development. The availability of sites for development and intensification will support market development activity in this location.

Station	Borough/District	Market Character	Policy Drivers	Future Development Activity Potential

Chadwell Heath	LB Redbridge	Chadwell Heath is an established District Centre, with the station to the south of the centre set within a residential neighbourhood. To the south of the station, the area is characterised predominantly as residential although an area of existing commercial employment activity stretches eastwards along the southern boundary of the railway line leading into a very substantial light industrial, manufacturing and retail warehouse employment area centred on Freshwater Road.
		
		Chadwell Heath includes a well- established High Street, with some architecturally strong retail parades along each side of the High Road. The prominent feature in the area is the intersection of Wangey Road and Station Road which provides a substantial piece of under-utilised triangular shaped land, with opportunity for a new high quality landmark development subject to respecting the setting of the Eva Hart public house, which is a late Victorian local landmark building at the eastern end of the aforementioned area.
		
		Development opportunity sites are identified in the Crossrail Corridor AAP which provide a range of opportunities for future residential and mixed use development, making the best use of existing sites and changing under-used commercial employment sites to mixed uses.
			• Core Strategy (Adopted March 2008).
			• Crossrail Corridor Area Action Plan (Adopted September 2011)
			• Chadwell Heath is identified as a District Centre in the London Plan and Borough Core Strategy.
			• The Area Action Plan allocates several Opportunity Sites for future development within five character areas:
			  • East of Ilford
			  • Seven Kings Local Centre
			  • Goodmayes Local Centre
			  • Grove
			  • Chadwell Heath
			• The AAP spatial vision sets out that Chadwell Heath will be revitalised, with new high quality buildings with a mix of uses, and a safer and attractive pedestrian environment ensuring greater connectivity between the High Road and the railway stations. New employment uses will provide opportunities for start-up businesses and investment into the area
			• The APP identifies that up to 1,500 new residential units can be provided along the whole Crossrail Corridor area, of which 101 are to be within the Chadwell Heath station area. Development of residential schemes will usually be as part of a mixed use approach to sites, particularly in close proximity to the Crossrail stations but in the wider area, standalone residential development is acceptable.
			• The AAP protects and seeks to enhance retail and service provision for Chadwell Heath District Centre.
				Some potential and impact:
				• Chadwell Heath is an established District Centre with a range of existing services and facilities supporting the residential area.
				• The planning policy supports new employment uses, including for smaller businesses with a more limited support for residential development within the area using intensification and infill site opportunities.

Romford	LB Havering	Romford is a defined Metropolitan Town Centre. The station sits at the heart of the Town Centre in close proximity to the primary retail, leisure and commercial activities. To the south and south-east of the station there are established residential neighbourhoods. To the south west, some 1km distant from the station are major residential development sites currently under construction and recently completed at Oldchurch Road. Recent residential developments in Romford town centre at The Brewery, The Axis and The Matrix have proved to be successful and additional schemes on North Street and the Market Place are key as part of major new mixed use schemes. The vision for Romford town centre is that it will continue to be East London's premier town centre thriving on the competition offered by Stratford to the west and Lakeside and Bluewater to the east in Essex and Kent. Significant change and investment in the last ten years to see Romford Town Centre rise to become the largest shopping centre in the sub-region and the fourth largest in London with a catchment stretching into East London and Essex. The Centre is to be the focus for retail, office and residential development and the Core Strategy and Town Area Action Plan seek to support the continued growth, vitality and viability of the Centre.	• Core Strategy (Adopted 2008). • Romford Town Area Action Plan (Adopted 2008) • A defined Metropolitan Centre in the London plan and Borough Core Strategy. • Identified in the Core Strategy as the major location for new residential development in LB Havering, with 1,500 new residential units proposed. Key residential sites include Angel Way, Bridge Close, Como Street Car Park and North Street identified sites. Intensification along Victoria Road and South Street, and in the Atlanta Boulevard and Regarth Avenue area could yield a further 500 units. • Romford Town Centre is also the principal location for new retail comparison development, with up to 30,000 sqm floorspace proposed by 2018. • The AAP identifies that new office development will be encouraged making use of higher densities of development available within the Town Centre. It identifies that existing office floorspace provision should be protected from a net loss when redevelopment schemes are promoted.	Significant potential and impact: • Romford's designation as a Metropolitan Town Centre, coupled with LB Havering's stated policies to promote significant new residential and mixed use development within the Town Centre adjacent to the Crossrail station will help support market interest and activity. • Crossrail's enhanced connectivity to Romford Town Centre will be beneficial in re-shaping and highlighting the potential in Romford. Coupled with recent and current development scheme within and surrounding the Town Centre, this combination should significantly encourage development market activity, particularly for residential uses.

Station	Borough/District	Market Character	Policy Drivers	Future Development Activity Potential
Gidea Park	LB Havering	Gidea Park has a sub-urban residential neighbourhood character. The station is set within well established, lower density residential areas to the north and south. The character of the area is set out and protected in the Gidea Park Special Character Area which is focused on the Main Road and Balgores Lane as well as the Unicorn Public House. This area is protected in terms of retaining the existing residential nature and density from sub-division and intensification for residential or other uses. Gidea Park, both around the station and more widely is not identified for major development or growth. The character as an established residential neighbourhood is to be protected.	• Core Strategy (Adopted 2008). • Parts of Gidea Park (centred on the Main Road) are protected within a defined Conservation Area subject to a Special Character Area SPD. • The area of Gidea Park is not identified for major growth, rather the Core Strategy proposes the protection of the existing sub-urban character.	Low potential and impact: • Gidea Park station is some distance from its local centre and planning policy places a strong degree of constraint on future development in order to respect the existing sub-urban pattern and character of the area. • Future market activity will likely be restricted to small–scale residential infill, potentially capitalising on the values generated y Crossrail's enhanced levels of accessibility and the existing quality and character of the Gidea Park area.
Harold Wood	LB Havering	Similar to Gidea Park, Harold Wood is a well established, sub-urban residential area. The patterns and densities of land uses are mature and this character is supported and protected within the Borough's Core Strategy. To the north of the station there is an existing retail and community facilities parade (defined as a Major Local Centre) that serves local, daily convenience and food/drink needs. More widely, to the east, the Bates and Elms Industrial Estates provide commercial light industrial and business employment floorspace including some retail warehousing activities. Harold Wood, both around the station and more widely is not identified for major development or growth. The character as an established residential neighbourhood is to be protected.	• Core Strategy (Adopted 2008). • Harold Wood is an identified Major Local Centre in the Borough Core Strategy. • The area of Harold Wood is not identified for major growth, rather the Core Strategy proposes the protection of the existing sub-urban character. • The Bates and Elms employment sites are identified as Secondary Industrial Areas and are safeguarded and protected for B Class employment uses unless it can be proved that they cannot support future business needs.	Low potential and impact: • Harold Wood is an identified Major Local Centre but planning policy does not currently encourage larger levels of future growth in this location. Policy seeks to protect the existing character and functions of the area, including the Secondary Industrial Areas further from the station. • Any future development market activity arising through Crossrail's enhanced transport accessibility will be tempered by the policy basis and the lack of availability of infill/intensification sites.
Brentwood	Brentwood Borough Council	The station area's character is mixed with both residential and commercial employment, local retail/community facilities and more industrial employment activities. Brentwood station is over 500m distance to the south of Brentwood Town Centre and while it acts as a gateway to the town, the physical distance reduces the inter-linkage that the station has with the Town Centre. More widely, Brentwood is identified as the only sizeable settlement in the Borough with a population of some 50,000 people. The main shopping area in the Borough is Brentwood town centre itself, centred on the High Street. Sitting within the hierarchy of shopping centres below the five sub-regional centres, Brentwood is the highest order Principal Town Centre in Essex. The town centre features a good range of national multiple retailers, as well as a range of services and a number of independent specialist shops, adding to its attractiveness.	• Brentwood Local Development Plan (Issues & Options Consultation, November 2009) • Brentwood Replacement Local Plan (Adopted August 2005) • Brentwood Town Centre is identified as the main retail location in the Borough. • Brentwood Town Centre and Brentwood Station are identified as the main office floorspace locations in the Borough. Proposals for new office employment floorspace will need to demonstrate that they are part of a wider mix of uses, particularly supporting the importance of ground floor retail/community/leisure services. • Plan policies focus future major retail and other compatible uses into Brentwood Town Centre, but with limited capacity for future growth due to land supply and traffic congestion/parking issues as well as the nature/character of the surrounding residential areas and the need to respect the High Street Conservation Area. • The area immediately around Brentwood Station is identified as a Local Centre providing daily needs convenience retail and related community services and facilities. • The Borough's housing policies are out-dated as the adopted Local Plan made provisions up to 2011 and the emerging Local Development Plan has yet to be completed.	Some potential and impact: • Brentwood station area offers limited opportunities for new development, although there are sites that could be commercial employment office sites considered for re-development in the future. • Planning policy in Brentwood is not sufficiently advanced from the dated Local Plan in order to direct and help shape development market activity. Nevertheless, the enhanced visibility and accessibility that Crossrail will bring in connecting Brentwood to Central London, City and Isle of Dogs retail and employment opportunities suggests that this location will prove attractive for residential development.

Station	Borough/District	Market Character	Policy Drivers	Future Development Activity Potential
Shenfield	Brentwood Borough Council	Shenfield is identified as an important Local Centre within Brentwood Borough forming part of the wider network of centres. The station area is predominantly surrounded by residential uses to the north and south, while the Local Centre retail uses stretch westwards from the station area along Hutton Road. The pattern of land uses and its distribution is well established. The residential neighbourhoods are characterised by lower density and larger properties many with substantial garden and parking spaces. It is a mature sub-urban area. There are few evident sites for re-development or intensification available in the immediate vicinity of the station, although planning policies promote the vitality and viability of the Local Centre including ensuring that there is an appropriate mix of uses.	• Brentwood Local Development Plan (Issues & Options Consultation, November 2009). • Brentwood Replacement Local Plan (Adopted August 2005). • Shenfield is identified as a Local Centre within the Borough Local Plan. • Policies seek to protect the vitality and viability of the Centre and to ensure that future development is appropriate to the role and function of the Centre. • Office development proposals are supported provided they demonstrate that they are part of a wider mix of uses, particularly supporting the importance of ground floor retail/ community/ leisure services. • The Borough's housing policies are out-dated as the adopted Local Plan made provisions up to 2011 and the emerging Local Development Plan has yet to be completed.	Significant potential and impact: • Shenfield represents the eastern extent of the Crossrail route. While the existing centre is already connected via the railway system, Crossrail will deliver a far greater level and quality of service and capacity than currently exists. • Development opportunities will be restricted within the immediate station area, although the Local Centre offers properties and sites that could be subject to significant intensification and density making better use of existing plots and greater heights of development. • The lack of current planning policy, other than the dated Brentwood Local Plan does not support the proactive development of Shenfield; although its role as a local centre and existing residential area provide the basis for similar uses to be developed in future provided sites can be identified. • The significant potential for Shenfield is likely to be increased development market activity in the wider Zones of Influence with Crossrail's improved accessibility serving to drive new residential development in an area where housing demand is strong and likely to remain so.

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