



Dolphin Square Foundation
Investing In Homes

Housing policy in high-density global cities

A cost benefit model of sub-market rental
accommodation in Central London



Foreword

More homes are desperately needed in Central London. But the danger is that these are constructed with investment from overseas, built buy by Eastern European workers, and sold to buyers in Russia or the Far East, doing nothing for Londoners. Development by the Dolphin Square Foundation is a very different story.

Dolphin Square Foundation's first development of 31 intermediate rented flats at One Church Square in Pimlico, opened by The Princess Royal, provides much-needed homes for people who work in Westminster, in the "engine room" of London, in businesses and organisations that form an important part of the capital's economy. These were the first affordable homes created from the £125m legacy from the sale of Dolphin Square, the famous riverside mansion block.

Demand for affordable homes has never been greater. Dolphin Living, the development brand of Dolphin Square Foundation, is aiming to transform the delivery of intermediate housing in the private rental sector. It has nine projects currently under way, which will deliver more than 400 homes in the capital and the ambition is to deliver 1,000 affordable rental homes for people who work in central London by 2020.

This report considers the economic and social challenges that face large global cities such as London and the implications these have for housing

policy and for the economic and social diversity of the capital. It also describes a rigorous cost benefit analysis that suggests a net benefit to the London economy of more than £17,000 per annum for each affordable rental home that is provided. That means that Dolphin's planned programme will, by 2020, deliver an annual benefit to London of £17 million per annum.

The findings in the report therefore illustrate the importance of accommodating the work of organisations such as Dolphin Square Foundation. Maintaining economic and social diversity is vital to the future of the capital as a living and working global city.

As former chairman of the Westminster Housing Commission, I was privileged to be part of the early discussions on the remit of Dolphin Square Foundation, which was established by Westminster City Council to provide affordable homes in Westminster. It is hugely gratifying to see the enormous progress that is being made.

Lord Best OBE



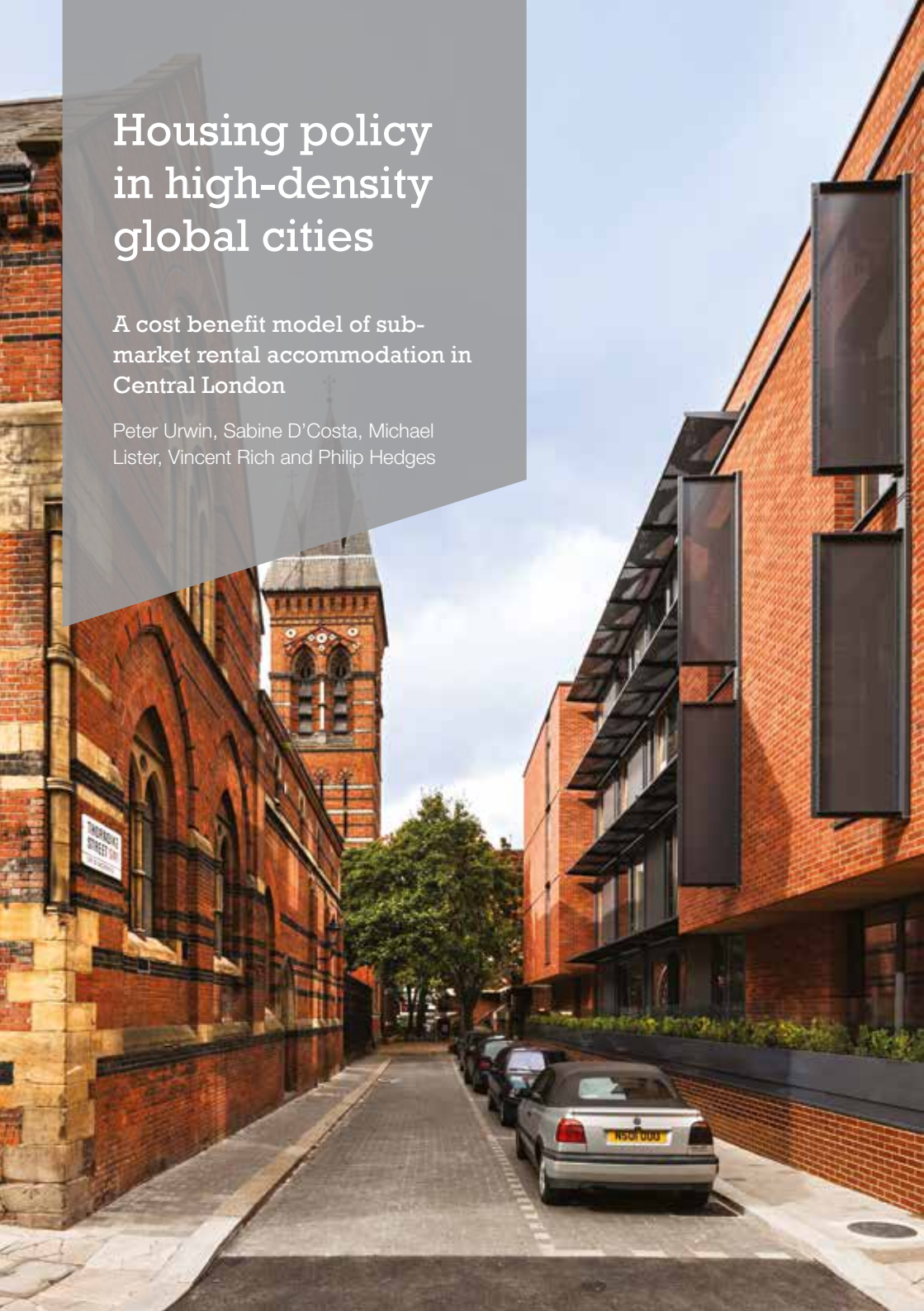
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Housing policy in high-density global cities

A cost benefit model of sub-market rental accommodation in Central London

Peter Urwin, Sabine D'Costa, Michael Lister, Vincent Rich and Philip Hedges



Executive Summary

This report considers the economic and social challenges that face large global cities such as London and the implications these have for housing policy, with a focus on the role played by organisations providing sub-market rental accommodation. The research has been funded by the Dolphin Square Foundation to fill a gap in the existing evidence-base.

London Economy and Society

The 1990s and 2000s have been a success story for the London economy, with evidence of significant improvements in productivity between 1993 and 2007. The reliance of London on finance, and particularly business services, as a driver of growth meant the current recession was always going to impact significantly. However, the London economy has proved more resilient to the global downturn than might have been expected and there is a consistent message of future growth.

We consider five major issues related to London's future economic growth:

A. Economies of agglomeration:

London is typical of many large cities, in that its workers achieve levels of productivity (and therefore wages) that are systematically higher than other parts of the UK. **One scenario for London going forward is that it retains, and improves upon, this productivity advantage through continued agglomeration of existing industry sectors.**

B. Creativity, Innovation and 'New Movements':

The possibility that London fosters creativity and innovation is seen as a potential explanation of its higher levels of productivity. The bars, cafés, clubs and venues in areas such as Inner East London's Tech City increase the probability of chance meetings between individuals who provide insight into the challenges faced by entrepreneurs. **London needs to attract individuals who will create the ideas and firms of tomorrow, as well as those that the city currently depends upon.**

C. Services for London's Residents and Tourists:

The Hotel and Restaurant trades, Distribution and Retail services and Other Personal Services (contract cleaning, hairdressing, etc.) employ approximately 27% of London's workers. We can view these private sector activities as providing services to London's residents and visitors. If we also include employment in public sector activities such as Healthcare and Education, approximately half of the jobs in London are focused on serving London's resident and visitor populations.

These sectors are unlikely (of themselves) to be drivers of growth, as demand for these services tends to be 'derived' – it is dependent on the pull of London to tourists, potential workers and business visitors. The implication is that a large part of the London population depends for work on those engaged in activities mentioned under A, B, D and E. **However, the quality of London's public sector health, education and other Civil Service activities may act as a break to growth.**

D. London's Mainstream Culture

Attractions are essential to the continued vitality of the tourist sector, which brings in approximately £22 billion each year. **Those working in world-renowned theatres, orchestras, musicals and other mainstream cultural attractions are important potential drivers of London's future growth.**

E. Finance and Business Services:

Employment in business services grew by 31.3% between 1998 and 2008 in London and whilst employment in financial services grew by only 7.8% over the same period, when combined the two sectors account for approximately 30% of London's employment. It is essential that **London retains its position as a global financial centre specialising in the support services that underpin international business activities.** However, as we shall see, there are downsides if sectors with exceptionally high rewards dominate the local economy.

The London Property Market and Construction sector

The continued upward trajectory of Inner London house prices from 2011 to the present day has a number of potential explanations. Most recently, debate has focused on the large proportion of non-EU overseas buyers, particularly from countries such as Singapore, Hong Kong, China and Malaysia. Concern has been raised over the high proportion of sales to individuals from these countries buying new homes 'Off-Plan' (prior to construction).

Whatever the exact nature of any bubble in Central London housing (whether related to new or existing housing stock), it would seem reasonable to conclude that there has been substantial speculative investment driving up prices. We now face the prospect of accelerated growth in prices across the whole of the South East; with Greater London, Central London (excluding prime) and the rest of the South East region predicted to experience price rises of around 30% over the next 5 years.

If we consider the attractiveness of London as a safe haven for investment, the variety of growth scenarios set out under A. to E., and recent policies to support first-time buyers, the balance of probability is for continued growth in London residential property prices. This is more of a threat to London's long-term prosperity than any pricking up the London housing bubble.

The gains to some investors and owners from rising property prices do not represent a creation of wealth, rather they are a shift in the balance of resource from the population who do not own property in central London, to those that do. It is clearly a concern if property prices are well above the level that might be expected if increased demand from London's working population were the sole driver.

Diversity and Inner London Communities

What is it about London that makes it so attractive to such a variety of workers, investors, businesses and tourists? The answer lies in the question itself – **variety and diversity.**

Various studies emphasise the importance of **diversity in economic activity** across the London economy. The positive economic prognosis for London going forward is based on the fact that it has such a variety of economic, social and cultural strengths. This variety presents a multitude of future growth scenarios and such a diverse portfolio of activities reduces the possibility that one or two negative shocks will derail the entire London economy. This also results in enormous diversity of job opportunities, attracting individuals from every part of the world, who feel at home in a city with a wide variety of cultures and communities, built up from waves of immigration over hundreds of years, from all parts of the globe.

The **diversity amongst London's population** that this implies has the potential for substantial business benefits. The protection and promotion of London's economic, social and cultural diversity must be a key aim of policymakers. The present trend towards selling Inner London properties overseas may increase ethnic diversity, depending on the proportion of sales that result in year-round occupation. However, it is unlikely to serve London or these boroughs in attracting the early career innovators who will create the London firms of tomorrow; on balance, it will result in less social and occupational diversity, and as a result some boroughs will suffer a loss of community.

UK Housing Policy and the case of Westminster

The Government's overall aim for housing policy can be summarised as, a decent home for every family at a price within its means, located within a sustainable mixed community.

Local authorities in Great Britain, each charged with the obligation to ensure that its local population is adequately housed, have for a number of years given consideration to the challenges that are most relevant to their own position. Key issues that are relevant to our discussions:

F. Most local authorities face an increasing need for housing resulting from inward migration, and ever-reducing average household size.

G. Westminster has suggested that it is in danger of becoming a place where only the very rich and very poor live. Degree level and young professionals, some with well above average earnings, are experiencing great difficulties in accessing and affording housing.

H. In boroughs such as Westminster, many of the housing units sold (on some estimates, 10%) are second homes, and many are unoccupied for large amounts of the time.

I. Given the shortages and cost of building land, local authorities are turning their attention to high-density housing. Parts of London are considered high density at 150 dwellings per hectare while in Paris and Barcelona density is up to 400 units per hectare.

J. Given the concerns over affordability for early-career professionals and graduates, and the willingness to consider high-density housing, there is increasing interest in Intermediate Housing. This is aimed at those who can afford to pay more than the price of social rented housing, but are unable to afford full-price open-market housing.

K. The specific characteristics of Westminster suggest a need for more intermediate rented accommodation, as it has a very different tenure picture from that of the UK as a whole.

Productivity and Housing in Large Global Cities

There is anecdotal evidence that businesses in London are suffering from the high costs of housing. It is clearly a concern if the high cost of housing is having a negative impact on the operation of London firms and also if we have evidence that those needing to expand are often doing so outside of the capital. However, we need to take a balanced approach to these arguments.

There is a particular concentration of high productivity (and therefore high earning) individuals working in the capital who exert upward pressure on house prices. The complaints of firms can be seen as a less desirable (but inevitable) consequence of the motivation for locating in central London - access to one of the richest labour markets in the world. The high cost of housing is a reflection of London's success, with the higher productivity of firms and individuals in the capital driving up property prices, and further economic growth producing an escalation of this effect.

In this characterization, affordability of the housing stock is 'anchored' to the performance of firms and workers, with London's firms needing to be engaged in high value-added activities to keep location in London viable.

The benefits of locating in a large agglomeration such as London – for workers as well as firms – are called **agglomeration economies**.

In large agglomerations such as London, "urbanization economies" are at play: the benefits of size occur across all industries present in that city because the city is not only large but well diversified.

In London, where agglomeration economies are very strong, the net result of migration from other locations is greater population, higher wages and housing costs. The increase in wages is on average greater than the increase in housing costs and as a result average real wages would be expected to be higher. However, if speculative investment drives housing costs up, the average worker becomes priced out of the housing market, and this impacts negatively on growth. Even without this speculative driver, those working in strategically important, but relatively low paid, occupations and sectors will find themselves squeezed out of the London housing market.

Diversity in Global Cities

Most of the research has found evidence that diversification has a positive impact on growth, whereas city specialization does not enhance growth. This resonates strongly in the case of London where one possible scenario is of a growing dominance of the finance and business sector to the detriment of economic diversity.

Diversity in cities fosters cross-fertilization of ideas across industries, leading to innovation and growth. This is not about the benefits of geographical concentration of a particular industry in a

particular location, but about the benefits arising from the size of a particular location, although both effects coexist.

The suggestion is that knowledge spillovers are greater across, than within, industries and that cross-fertilization of ideas enhances growth. Emerging industries are more likely to grow in diversified cities, then possibly move to specialized cities when they have reached maturity. US studies find that diversity of industrial employment at the zipcode level increases firm creation. There is also evidence that diversity-friendly cities with many "bohemians" (creative cities) or with large gay populations (tolerant cities) innovate more.

Another source of agglomeration economies other than that arising from greater productivity is the role of cities as centres of consumption. There are four main ways that this can happen:

- Goods and services such as opera or fine restaurants are available in cities but not in rural areas;
- Cities act as centres of aesthetic consumption (beautiful architecture);
- Large cities offer public goods not offered in smaller locations (e.g. specialized schools);
- Urban density favours speed of interaction between people (for example making social interactions faster and easier).

Research suggests that the resurgence of US cities in the 1990s is due to increased demand for social interactions as well as a reduction in crime, which increases the ease of access to urban amenities.

There are a wide variety of reasons why workers, particularly skilled workers, come to London in spite of higher housing costs. In turn their presence feeds into agglomeration economies and contributes to higher local economic growth. The Dolphin Square Foundation's targeted action subsidizing rental housing enhances local economic growth because it reduces the earnings-housing cost gap for a specific category of high skilled workers with underrepresented skills and those who constitute the "creative class". In turn this changes the composition of the local workforce, ensuring continued diversity of economic activities and local communities.

Building a Cost-Benefit model

We developed a cost-benefit model of DSF provision of sub-market rental accommodation, using the specific example of One Church Square based on the insights gained from review of

the possible future growth scenarios for London and our review of the economic literature on Cities.

One Church Square

One Church Square is a highly sustainable new building just a short walk from Pimlico station and to the amenities and transport hub of Victoria. The building contains 31 apartments for intermediate rent and features a landscaped roof garden available to all residents. Tenancies are for 3 years initially and interest free loans are available on furniture packs. The minimum household income required to achieve affordability is shown in the table below.

The main focus of this study is on the economic and societal impacts that arise from the provision of this accommodation to individuals who would otherwise be priced out of Central London (specifically Westminster). The value of DSF developments to London and Westminster's economy and society, arise from the type of people that rent DSF properties, the jobs they do and their role in the community.

Type of housing	Minimum household income	Maximum household income	Rent
Studio	£30,000	£65,533	£190/week
1 Bedroom	£35,000	£65,533	£250/week
2 Bedroom	£55,000	£65,533	£360/week
3 Bedroom	£55,000	£65,533 per individual applicant per room	£399/week

To make sure that we adopt a rigorous approach to evaluation, we consider the cost and benefits to the London economy of a DSF rental project, next to a representation of the world where the same development is rented and/or sold at market rates. Technically we call this alternative state, the counterfactual – as it is counter to the factual state of the world.

Occupation and Industry

Our starting point is information relating to individuals of working age who are resident in 25 apartments at One Church Square, according to their stated occupation/industry sector. We would observe a very different distribution of occupations in this building if it were provided at market rents. A key question for our cost-benefit analysis is how many teachers, civil servants, NHS staff and others would we expect to see in these apartments if DSF were not providing at sub-market rents?

Carrying out an analysis of the January-March 2013 version of the Quarterly Labour Force Survey, we produce an estimate of what this distribution of occupations/industries would look like in the absence of DSF intervention. This is our starting point for the creation of a counterfactual scenario.

One of the potential downsides of a DSF development is the consumption lost from higher earners who would have rented the properties in the absence of DSF intervention –

by definition these individuals would have to pay higher rents and therefore likely have higher earnings.

Data from the January-March 2013 LFS provides estimates of average earnings for individuals within the Inner London area who represent the relevant potential tenants. Having calculated annual earnings for each one of our apartment types, we then calculate what the total earnings would be for residents in a development such as One Church Square, in the absence of DSF intervention.

Externalities, Productivity and Spillovers

Within the economic literature it is recognized that the value of an individual worker's productive activity is not always fully reflected in the value of the wage they earn. For instance, Hanushek's work on the Economic Value of Higher Teacher Quality shows how a small increase in teacher quality leads to substantial increases in the discounted future lifetime earnings of the children they teach.

We also draw on research that calculates the external economic value of a nurse and, in addition to these research findings, we have also seen that individuals working in certain professions/sectors are essential to retain the diversity of economic activity within the London economy, but are particularly prone to being shut out of the housing/rental markets. Following existing research, our cost-benefit model

assumes that immediate productivity impacts of workers are twice their wage and for teachers/nurses there are additional spillovers that we can estimate from research findings.

For the other occupations that are essential to the economic diversity of London's economy, but would likely be locked out of the rental market in Inner London, we suggest multiplying the wage by three (to take into account the additional external value of these jobs to the London economy, in addition to productivity impacts that are roughly double the wage). This is not ideal, but it should be remembered that we are explicitly taking into account the counterfactual in these situations and therefore any increase in the scale of external impacts also increases the value of our counterfactual.

Local Economy and Community

In addition to the economic impacts of a DSF-funded development, there are also impacts that we might expect for the local community (in this case, Westminster). For instance, research emphasizes that individuals in the 'civic core' (i.e. those who account for the vast majority of volunteering, charitable giving and civic participation) are much more likely to have lived in the same area for longer. DSF have 'ties to the local community' as one of the eligibility criteria for tenants and this is likely to result in higher numbers of DSF-development individuals who constitute this civic core.

Unfortunately, there are few research findings on which to build an estimate of the scale of these impacts. However, the omission of these additional possible impacts allows us to suggest that our estimate of DSF impact are relatively conservative, and counteracts any suggestion that we multiply a factor lower than three for the occupations that are essential to the London economy.

The final figure we arrive at for the economic and social value of a DSF development housing 40 individuals is approximately £600,000 per annum.

This final figure includes an estimate of 10% for partial occupancy taken from research findings. Even a relatively small development makes a substantial annual contribution to the sustainability of the London economy and local community (although we are not able to capture the full extent of the latter).

Conclusion

There is much talk of the need for London to be economically diverse, especially following the financial crisis that highlighted the pitfalls of over-reliance on one or two sectors. Similarly, demographic diversity is a stated aim of many policymakers who rightly highlight this as a central strength of London. However, both socio-demographic and economic diversity are threatened by the rising cost of living in London – on present trends we will see a further move towards only the very rich and the very poor being able to access housing. This has both social and economic implications, as we face the possibility of high-paying sectors such as Finance and Business Services crowding out a variety of other economic activities.

In this study we have attempted to capture the value to London of a Dolphin Square Foundation development that helps to retain some of the economic and social diversity that is essential to London's prosperity. The suggestion is that an average DSF-funded development provides an estimated net benefit per annum of approximately £600,000.

This figure mainly captures the value to London of the economic diversity that DSF-funded projects help to retain, as we are only capturing a small amount of the value of diversity to the local community. However, it still underlines the need to accommodate the work of the Dolphin Square Foundation and other similar bodies in the planning rules that surround developments within London. They play an essential role in retaining the economic and socio-demographic diversity that is central to the continued prosperity of such globally important cities.



1. Introduction

In this report we consider the economic and social challenges that face large global cities such as London and the implications these have for housing policy, with a focus on the role played by organisations providing sub-market rental accommodation.

The research has been funded by the Dolphin Square Foundation to fill a gap in the existing evidence-base. Whilst there are academic literatures on, for instance, the earnings gain to individuals from working in big cities; the economics of agglomeration and the nature of community in large cities, there are very few studies that bring these strands of the literature together and consider the implications for housing policy.

In Section 2 we begin with a description of the London economy and society; identifying the existing economic strengths of London and the possible drivers of future growth. The discussion then moves on to consider movements in the residential housing-market over the last twenty years, and the relatively recent exceptional growth in the price of prime central London property. This sets the scene for our study, and Section 3 provides further insight with a description of the research that considers Housing Policy in the UK.

Having set the scene in Sections 2 and 3, Section 4 considers the debates around productivity in large cities, with much of the literature in this area focused on (i) answering the question of why economic

activity in large cities is associated with higher levels of productivity and/or (ii) how the gains to individuals manifest themselves (usually in higher wages). In light of this research, which spans a number of disciplines, we consider the implications for housing policy if it is to support the capital's competitive advantage over other global cities. In these discussions we also consider how the social and cultural makeup of Inner London communities will be impacted by various growth scenarios, and the role that housing policy plays in retaining diverse central London communities (with a particular focus on the example of Westminster).

In Section 5 we discuss the main stages in the development of a cost-benefit model that estimates the value to London economy and society of a DSF funded housing project. The aim is to use the academic literature as a foundation for our analysis of the costs and benefits associated with a typical project that aims to provide sub-market rental accommodation at between 60% and 80% of market rent in the central London borough of Westminster.



2. London Economy and Society

The section begins with a brief outline of key characteristics of the London Economy, the prospects for future growth and some indication of where this growth may come from. We end with a discussion of the housing market in London and consider some of the issues of social welfare and community that typically shape housing policy in large UK cities (with some specific reference to Westminster).

2.1 The London Economy

The past two decades have been a success story for the London economy. As the *Oxford Economics* (2011) report underlines, “between 1993 and 2007 the city enjoyed a fifteen-year period of sustained Gross Value Added (GVA) growth¹, averaging 4% a year”. Some of this GVA growth was driven by an increase in the number of workers, but the slowdown in employment growth between 2003 and 2007 failed to dent GVA, implying significant improvements in productivity over these years.

The drop in economic activity in 2008, which produced an estimated fall in London GVA of 3% in 2009 (*Oxford Economics*, 2013), put a dent in this success story. The reliance of London on finance, and particularly business services, as a driver of overall growth in the years before the recovery², meant the current recession was always going to impact significantly.

However, up to now the London economy has proved more resilient to the global downturn than might have been expected earlier on in the recession. This argument becomes more apparent as we stand back from month-to-month statistical fluctuations and take a wider view. For instance it is estimated that in 2012, London recovered the previous peak employment level achieved in 2008 and claimant unemployment has remained subdued, as evidenced by Chart 2.1 taken from *Oxford Economics* (2013; p.4).

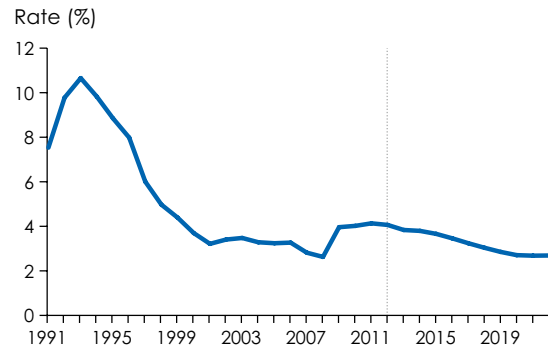
Similarly, when one considers the various forecasts for people and jobs in London, there is a consistent message of future growth. The Mayor’s *Economic Development Strategy for London*, (2010) suggests that the numbers employed in London, “could increase by a further 750,000 by 2031”; projections of future GVA (*Oxford Economics*, 2013) are close to 3% by 2014 and rising above

¹ GVA is a measure of output that is used to create estimates of Gross Domestic Product (GDP). It is the value of output, minus intermediate consumption, which when adjusted for taxes and subsidies provides an estimate of GDP. If GDP is rising because more workers are being used, then productivity per employee does not have to be rising. If we produce more (higher GDP/GVA) with the same workers, the implication is that each worker is producing more – productivity is rising.

² London employment in Business Services grew 31.3% between 1998 and 2008, a rate greater than any other sector of the private economy (*Oxford Economics*, 2011; Table 2.5).

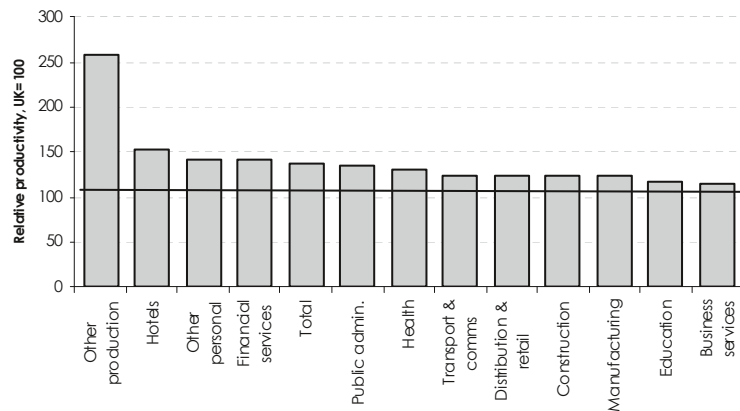
Chart 2.1: London's Subdued Unemployment

Claimant unemployment rate



Source: Nomis, Oxford Economics

Chart 2.2: Relative productivity by sector (UK=100), London 2009



3.5% from 2015 onwards; and the development of areas such as Tech City in Inner East London, are taken as encouraging signs that London can achieve a more broad-based economy, less reliant on finance and business services (see for instance, Nathan, Vandore and Whitehead, 2012).

So all is well with London?

This publication does not adopt an alarmist stance, mainly because we agree with the general direction of the economic prognosis for London. It is a little complacent to assume that the exceptional growth of the 15 years up to 2008 will necessarily be repeated, but the London economy clearly has a wide range of existing strengths. The sheer number and variety of these strengths raises the prospect of so many potential avenues for future economic growth, that it may seem almost inevitable that London continues its rise. Briefly, the significant avenues along which there is potential for future economic growth are:

A. Economies of agglomeration:

As we shall see in Section 4, London is typical of many large cities, in that its workers achieve levels of productivity (and therefore wages) that are systematically higher than other parts of the UK (D'Costa and Overman, 2013)³. In London this productivity premium seems to be spread across sectors (Chart 2.2), not just concentrated in those that are seen as the traditional drivers

of London's growth. In fact, the relative productivity of *Business Services*, which has been the main driver of growth in London over recent decades, shows the lowest relative productivity gap with the rest of the UK for 2009 (according to the following estimates produced by *Oxford Economics*, 2011).

We need to be cautious in our interpretation of relative productivity figures produced for 2009⁴. However, whilst the exact magnitude of any differences between London and the UK for 2009 may be misleading, the fact that GVA seems higher in all sectors is something that we return to in Section 4 (where the literature suggests that we should observe the largest productivity premiums in those sectors that are most highly concentrated around London, because agglomeration economies will be more apparent).

Growth Scenario 1: One scenario for London going forward is that it retains, and improves upon, this productivity advantage through continued agglomeration.

There are perhaps fewer economic studies than one might expect, where an attempt is made to better understand the drivers of higher productivity observed in cities (Moretti, 2011). However, improvements in data over the last decade have promoted understanding in this area, and in the following sections

³ D'Costa, S. and Overman, H. G. (2013), "The urban wage growth premium: Sorting or learning?", March.

⁴ If sectors, such as Business Services, experienced high employment growth in the years to 2007; then suffered a negative demand shock in 2008; but in 2009 at this early stage of the recession, were still trying to 'hoard' workers, this might explain lower levels of productivity. Paradoxically, in 2009 we may observe the lowest levels of productivity amongst the previously booming (and productive) sectors.

we consider findings from studies that use mathematical models and econometric techniques to consider the role that housing plays in models of large city productivity growth.

B. Creativity, Innovation and 'New Movements':

As we shall see in our discussion of agglomeration economies, the possibility that London fosters creativity and innovation is seen as a potential explanation of higher levels of productivity (ibid.). The bars, cafés, clubs and venues in areas such as Inner East London's Tech City increase the probability of chance meetings between individuals who provide insight into the challenges faced by entrepreneurs. This is the type of information spillover put forward as one possible gain from agglomeration.

However, we also consider this as a separate driver of future growth and prosperity. As Currid (2007) suggests in a study of New York's artistic sectors⁵, the amenities of an area are essential in determining 'the social life of creativity' and we consider that the creation of Creative Social Spaces are, independent of agglomeration economies, an important factor in London's future prosperity. For instance, Nathan, Vandore and Whitehead, (2012) suggest in

*A Tale of Tech City*⁶, that the area's amenities are attractive to "typically cool, creative, tech-savvy young urbanites". Whilst we need to be careful in stereotyping only the 'young' as being 'tech-savvy', the more general lesson here is that London needs to remain attractive to each successive generation of early-career innovators, who (by definition) spurn the mainstream⁷ and are more-often-than-not relatively poor. Later in this report we will also consider the related 'Creative Class' hypothesis put forward by Florida (2002; 2004).

London's ability to attract such early career innovators and disrupters is as important to the future survival of *Fringe Theatre* as it is to *Tech City*. London needs those who challenge the accepted economic, technical, cultural and social orthodoxies, which is at least partly dependent on the provision of amenities that differ from the mainstream⁸. It is not just about the agglomeration economies that arise from information transfers between firms and individuals working in the same areas, it is about attracting Nicholas Taleb's Black Swans⁹ and provision of amenities that facilitate their interactions.

Growth Scenario 2: London needs to attract individuals who will create the ideas and firms of tomorrow, as

well as those that the city currently depends upon.

C. Services for London's Residents and Tourists:

As already suggested, Business Services has been one of the most important drivers of London's growth in recent decades. However, in terms of employment generation, the Hotel and Restaurant trades achieved similarly high rates of employment growth (23.9% according to Oxford Economics, 2011) between 1998 and 2008; and whilst employment in Distribution and Retail remained roughly static over the same period (falling by 1%), it still constitutes a significant component of London's employment. If we combine these two sectors with 'Other Personal Services' (which includes contract cleaning, hairdressing, etc.), the suggestion is that they employ approximately 27% of London's workers. We can view these private sector activities as providing services to London's residents and visitors (both business and leisure).

If we also include employment in public sector activities such as healthcare and education, approximately half of the jobs in London are focused on serving London's resident and visitor populations¹⁰. There is clearly overlap between service provision to the resident population and to tourists (most notably when we consider the Retail sector).

However, when considering potential drivers of London's future growth (and in line with the academic literature) it is useful to differentiate between the following three categories:

- a) Private sector services provided primarily for London's resident population, but also consumed in some volume by visitors (plumbing, cleaning, hairdressing, retail, wholesale, restaurants etc.). Most of the goods and services in this category are referred to by economists as being 'non-tradable', as they are not easily exported/imported and usually consumed in the locality where they are produced. This has implications for the way that wages and employment levels are set in these sectors, and is something that we return to. To give some idea, imagine that haircuts in Yorkshire are much cheaper than identical ones in London. This difference can persist unless a significant number of Yorkshire hairdressers move to London and compete away the price differential. In contrast, legal, financial, accounting and business consultancy advice is more easily tradable across localities (it can be consumed at distance), and therefore we may expect less of a price/wage gap between accountancy services delivered in Yorkshire and London¹¹, even without the movement of accountants from the former to the latter.

⁵ Currid, E. (2007), "The Warhol Economy: How Fashion, Art, and Music Drive New York City", Princeton: Princeton University Press.

⁶ Nathan, M., Vandore, E. and Whitehead, R. (2012), "A Tale of Tech City: the Future of Inner East London's Digital Economy", Centre for London.

⁷ See Urwin, P. (2011), *Self-employment, Small Firms and Enterprise*, Institute of Economic Affairs, 179 pages; for a discussion of why innovation and entrepreneurship is almost inevitably disruptive and challenging to existing social and economic structures.

⁸ In keeping with the Economic Geography literature, we refer to the cafés, bars, clubs, swimming pools, retail outlets etc. in an area under the catch-all term of 'amenities'.

⁹ Taleb, N. N. (2007), *The Black Swan: The Impact of the Highly Improbable*, New York: Random House.

¹⁰ According to the *Mayor's Strategy for London* (2010).

¹¹ Clearly there is not a wholly clear-cut distinction and each good/service will be more or less tradable – rather than being wholly tradable or wholly non-tradable. Most companies and individuals have to meet their accountant, financial adviser or business analyst at some point. This may reduce tradability of these goods, but the general point still holds.

- b) **Public sector services provided primarily for London's resident population**, but also consumed in small volume by visitors (nurses, doctors, teachers, etc.).
- c) **Private sector non-tradables, consumed by the visiting tourist population**, with some obvious consumption by the local population (hotels, restaurants, retail etc.).

These Tradable/Non-tradable; Public/Private and Tourist/Resident distinctions are perhaps more important in the academic economics literature, but it is hopefully clear why we need to distinguish jobs that service London's residents and tourists; from those that determine London's competitive position in the world (which are tradable, to a much greater extent). More specifically, when considering future growth scenarios,

- The private non-tradable sector that provides services to tourists is unlikely (in itself) to be a driver of growth, as demand for these services tends to be 'derived' – it is dependent on the pull of London as a tourist attraction. Whilst the quality of hotels and restaurants will impact on the experience of London's visitors, they are unlikely to visit in the first place if they are not drawn by the mainstream cultural attractions that depend on (often relatively poorly paid) actors, comedians, singers, musicians and an associated supporting cast.
- Similarly, whilst the private non-tradable sector providing for the resident

population is important in the London experience, again this sector derives its demand from the success of other activities in London. We would expect the market for plumbers to be heavily influenced by movements in the market for London's high value added workers engaged in tradable activities¹². In contrast, the markets for public sector workers such as doctors, nurses, teachers and other civil servants do not necessarily respond if demand for services rises. Furthermore, whilst we may argue that the resident population will be annoyed as it becomes harder to get a plumber, an inability to find a good school, hospital or a range of public amenities is likely to figure more heavily in an individual's choice of where to locate.

From this brief discussion we can see that,

- A large part of the London population depends for work on those engaged in high value-added tradable activities mentioned elsewhere in our discussions. Half the jobs in London are unlikely to be drivers of growth, but rather they reflect the performance of London in other areas of activity.
- When we consider the future vitality of the tourist sector, which brings in approximately £22 billion each year¹³ and drives demand for hotels, restaurants and other non-tradables, there is a strong dependence on those involved in London's Mainstream Culture Attractions. These are individuals whose talents/services are tradable at an international level,

and who ensure that the West End musicals hold their own against Broadway; that London's orchestras retain their positions in a global elite; and that London's major galleries continue to attract some of the most globally recognised works¹⁴.

Growth Scenario 3: Those working in world-renowned theatres, orchestras, musicals and other Mainstream Cultural Attractions are important potential drivers of London's future growth.

In later sections of this report we ask how this future avenue of growth is likely to be impacted by changes in the London housing market.

In addition, even from such a short discussion we can see how important the supply of public sector professionals is to London's future growth prospects. Whilst those at the very top of their profession (and lower down the hierarchy in highly paid sectors such as Finance) may be able to afford private health and education,

the attractiveness of London to workers on less than £100,000 per annum depends heavily on the quality of delivery in the public sector.

Growth Scenario 4: The quality of London's public sector Health, Education and other Civil Service activities may act as a break to growth, if it is not sufficient to cater for the resident population¹⁵.

D. Finance and Business Services: Employment in Business Services grew by 31.3% between 1998 and 2008 in London and whilst employment in Financial Services grew by only 7.8% over the same period (op. cit.), when combined the two sectors account for 30-35% of London's employment¹⁶. Projections from Oxford Economics (2013) suggest that between 2013 and 2016 it will be the areas of Professional and Scientific services that will add the most jobs (just over 50,000) and the only two other sectors adding significantly above 20,000 jobs will be in the non-tradable private sector¹⁷, experiencing growth mainly

¹⁴ In this category we would also include University academics. Estimates suggest that London's approximate 93,000 overseas students contribute in the region of £1.5 billion (Oxford Economics, 2007). These students are drawn to London because it has some of the most prestigious institutions in the world, and this reputation is based on the quality of academics working in these institutions. University academics operate in a global market, rather than being direct employees of the state.

¹⁵ Recent years have seen the steady outsourcing of central government activities to other parts of the UK where costs of location are lower. Whilst the increased propensity for outsourcing of government services (for instance, with the creation of the Work Programme in DWP and Prison Reform in the Home Office) may benefit some London companies, future growth will not be provided by the sector. Projections (for instance, Portes, 2013) confirm that in the long term, fiscal pressures will be such that public sector investment will need to fall. This will prove particularly problematic for London, not because it needs this sector to drive growth, but because of the pressure on public services that continued growth implies.

¹⁶ This estimate from Oxford Economics (2011) is perhaps an upper bound on the contribution of this sector, with the Mayor's Strategy document (2010) suggesting something closer to 30%. Estimation of London jobs and employment is subject to a margin for error, and is dependent on the exact definitions and datasets used. For a more detailed discussion see Urwin, P. (2003), "Reconciling Differences between the Estimates of London Jobs gained from Employer Surveys and the Labour Force Survey", in GLA Economics, "The GLA's Workforce Employment Series", Mayor of London, September.

¹⁷ Specifically, *Administration and Support Services* (approx. 41,000 jobs); *Wholesale and Retail* (approx. 28,000) and *Accommodation and Food* (elsewhere referred to as *Hotels and Restaurants*) approximately 21,000 [Oxford Economics, 2013; p.4].

¹² In the absence of other changes, such as a large influx of plumbers from other localities.

¹³ London tourism action plan 2009-13, as reported in The Mayor's Strategy (2010).

as a result of performance in tradables elsewhere in the London economy.

Employment in Finance and Insurance services is expected to grow to 2016, but by much less than these other areas. However, the stance of national and local governments (both past and present), is such that we would expect:

Growth scenario 5: London will retain its position as a global financial centre, specialising in the support services that underpin international business activities.

Individuals working in these sectors of the economy are particularly highly paid (see LFS 2013 figures in Section 5) and are less likely to be locked out of the London housing market. Many commentators suggest a strong link between the value of City bonuses (as well as the number of City jobs) and the movement in London house prices. This hypothesis has received less attention in the last few years, but the suggestion (see for instance, Centre for Economics and Business Research, 2011) is that the high paying financial sector exerts a disproportionate influence. Whilst further agglomeration of the Finance and Business Services sector may occur, it is not something that should necessarily be promoted – as the marginal gain from increased diversity of economic activity would seem to outweigh further concentration on these sectors.

Especially as the associated high pay may crowd-out the growth of other sectors, not least because their employees are priced out of the housing market.

2.2 The London Property Market and Construction sector

When considering strengths of the London economy that support growth, some might argue for the inclusion of housing investment. Whilst there are clearly questions of sustainability into the long-term, it is reasonable to suggest that the surge in Inner London house prices since 2008 may have helped sustain some components of household consumption. Given that many jobs depend on delivery of goods and services to London's homeowners, the wealth-effects of London house prices cannot be dismissed¹⁸ and house building/renovation drives employment in the construction sector. However, to understand the role that housing plays in London's growth, we first need to see how prices have moved in the last two decades and consider the reasons why.

Chart 2.3¹⁹ suggests that (from a 1995 base), the trend in Greater London's residential property prices has broadly mirrored those of the UK as a whole, with some divergence since 2010, reflecting spillover from the traditional prime central London areas. In contrast, Prime Central London²⁰ prices experienced a particular

surge from 2005 to 2008, making up relative ground seemingly lost in the early noughties; then experiencing a much less pronounced drop in 2008/2009 than the rest of London and the UK; and surging upwards from that point onwards.

Clearly the specific datasets used to capture house prices and the postcodes counted as 'Prime', will have an impact on the perceived point of divergence of Inner London house prices. However, if we consider a second Chart 2.4 presented by Authers (2012), which uses Knight Frank's measure of Prime²¹, a similar story emerges. The argument from Fathom Consulting is that Prime Central London diverged from Greater London and the rest of the UK from 2007 onwards as property in this area served as a safe haven for investment capital; and that this flight to Prime Central London started 'another significant leg up' from Spring 2010 with the Eurozone crisis and the Greek bailout.

However, Fathom's hypothesis that the Eurozone is the main driver of Prime Central London house prices and that the area's 'bubble' is severely exposed to the risk of 'Euro breakup' seems excessive and counter-intuitive (even without the benefit of hindsight). If the initial flight to central London property resulted from crisis elsewhere in the financial system, then a worsening would be expected to further inflate the bubble. The announcement by Mario Draghi

(President of the European Central Bank) in July 2012 that "the ECB is ready to do whatever it takes to preserve the euro," and "believe me, it will be enough" should have had an impact, if the Fathom hypothesis were correct.

The continued upward trajectory of Inner London house prices from 2011 to the present day suggests that, whilst it may be important, flight from the Eurozone is one of a number of drivers. Most recently, debate has focused on the large proportion of non-EU overseas buyers, particularly from countries such as Singapore, Hong Kong, China and Malaysia. Concern has been raised over the high proportion of sales to individuals from these countries who are buying new homes 'Off-Plan' (prior to construction), with some suggestion that a weak sterling and low interest rates make central London property prices relatively cheap by international global-city standards²². The suggestion in articles that consider the phenomena of buying off-plan is that this is, "not just the jet-set, but the working middle classes expanding into the world" (ibid).

Whatever the exact nature of any bubble in Prime Central London housing (whether related to new or existing housing stock), it would seem reasonable to conclude that there has been substantial speculative investment driving up prices – as the financial externalities associated with investment goods have

¹⁸ See Carroll, C., Otsuka, M. and Slacalek, J. (2010), "How large are housing and financial wealth effects? A new approach", *Journal of Money, Credit and Banking*, Vol. 43, No. 1; pp. 55-79

¹⁹ Chart produced by Fathom Consulting for Development Securities, reproduced in Authers, J. (2012), "London Property III: This Time It's Granular", FT Long Short, September.

²⁰ Here taken as NW8, SW1, SW3, SW7, W1, W8 and W11.

²¹ Produced by the Financial Times Statistics department.

²² In an FT article [Hammond, E. (2013), "Foreigners buy nearly 75% of new homes in inner London", August, Financial Times] the suggestion is apparent from the headline. However, the figures provided by Knight Frank are produced with little indication of how they were estimated and should be considered with care.

Chart 2.3: Trends in London residential property prices

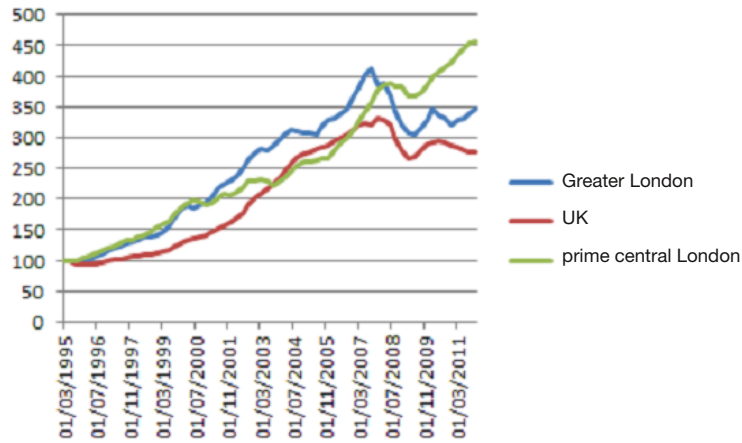
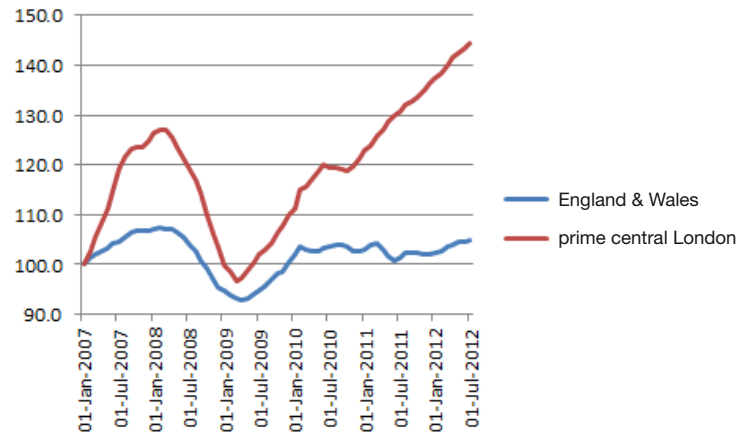


Chart 2.4: Trends in UK residential property prices



drawn in more buyers²³. It is clearly a concern if prices in these prime locations are well above the level that might be expected if increased demand from London's working population were the sole driver.

However, we now face the prospect of accelerated growth in prices across the whole of the South East; with Greater London, Central London (excluding Prime) and the rest of the South East region predicted to experience price rises of around 30% over the next 5 years²⁴. The suggestion is that, "while Londoners in the key buying age groups can today afford to buy a two-bedroom property in almost half the city's boroughs, by 2018 only a third of the areas will still be within their reach"²⁵.

We need to be careful when attempting to forecast future house prices, as existing trends are often poor indicators. However, if we consider the attractiveness of London as a safe haven for investment, together with the variety in growth scenarios set out in Section 2.1 and recent policies to support first-time buyers, the balance of probability is for continued growth in London residential property prices.

Even if there were some reversal in the medium term, as economic growth picks up, other forms of investment recover their attractiveness, and there is some move out of Inner London residential investment; this would likely be short-lived, as other parts of the London economy experience growth and place upward pressure on residential property prices.

It is worth noting that the recent increase in Inner London new builds has been credited with an increase in construction activity²⁶ and projections from Oxford Economics (2013) suggest that this sector will add some 20,000 jobs in London between 2013 and 2016. When the construction sector is chastised for its practices of selling off-plan to foreign buyers, they suggest that limited supply is the main driver of rising house prices - if they did not sell off-plan abroad, even fewer homes would be built, as banks would not lend money to build without this assurance.

The balance of probability is for a continued rise in London residential property prices and this is more of a threat to London's long term prosperity, rather than any pricking up the Inner London housing bubble. The gains to some investors and owners from rising property prices do not represent a creation of wealth, rather they are a

²³ The basic premise is that, when I invest in property and put upward pressure on the price through my increased demand, others see the subsequent rising price as an indication that they can also gain a return; this is in contrast to most other goods, where rising prices would depress demand.

²⁴ Hamptons International (2013), Housing Market Forecasts, Hamptons International Research, Autumn.

²⁵ Evening Standard, London Property Squeeze Tightens, 31st Oct 2013.

²⁶ See the Purchasing Managers Index for building and construction, Aug 2013

shift in the balance of resource from the population who do not own property in central London, to those that do²⁷. Whilst there is a threat from Europe, this seems more likely to come in the shape of exposure to sovereign debt of London's banking and finance sectors²⁸, rather than a fall in the prices of Inner London property. A deflating of this particular bubble would likely be more beneficial to London in the long run, whilst the continued house price inflation in central London represents a truly worrying challenge to London's prosperity.

The long-term outlook for residential property prices in London is upward, and in the following sections of this report we consider the value to the London economy of DSF-funded projects that make rental accommodation available to those who would otherwise be priced out.

2.3 Diversity and Inner London Communities

Our prediction of continued rises for residential property prices in London over the long term will seem obvious to many readers as they are more interested in projections that provide medium-term insights. However, our focus is squarely on the long-term. London's Housing Policy needs to be fit-for-purpose so

that the London of 2033 remains a truly dominant world city, attracting the most talented individuals from around the globe.

This immediately begs the question of what we mean by 'truly dominant' and what it is about London that makes it so attractive to such a variety of workers, investors, businesses and tourists? From the discussions in Section 2.1 and 2.2 it would seem obvious that the answer lies in the question itself – **variety and diversity**.

The **diversity of economic activity** is underlined in a report by *Ramidus Consulting Limited (2013)*²⁹, that suggests, even when we focus only on the City where the assumption is that Finance dominates, "it is more diverse, in business terms, and it comprises an enormously dynamic range of business sizes, the vast majority of which are, in fact, quite small".

The conclusion is that, "as land use diversity in the City increases it will be crucial to maintain a balance between diversifying land use and maintaining the integrity of the cluster". Thus, even at the level of individual borough this message of diversity in economic activity comes out.

The main reason we agree with a generally positive economic prognosis for London going forward is that the city has such a variety of economic, social and cultural strengths. This variety presents a multitude of future growth scenarios and such a diverse portfolio of activities reduces the possibility that one or two negative shocks will derail the entire London economy. This also results in enormous diversity of job opportunities, attracting individuals from every part of the world, who feel at home in a city with a wide variety of cultures and communities, built up from waves of immigration over hundreds of years, from all parts of the globe.

As Urwin et. al. (2013)³⁰ underline in their systematic review of empirical studies that consider *The Business Case for Diversity*, the **diversity amongst London's population** that this implies has the potential for substantial business benefits. We shall see when reviewing the work of Richard Florida and others, that these considerations of diversity have been put forward as possible drivers of agglomeration economies. Furthermore, as the Mayor's Strategy (2010) suggests, "The Mayor will promote London as a uniquely diverse city, which draws strength from the immense variety of its people, and of all its neighbourhoods and local economies as well as from the power of agglomeration at its centre".

This is the starting point for the development of our cost-benefit model. A key aim would seem to be the protection and promotion of London's economic, social and cultural diversity. We have already alluded to the importance of diversity in ensuring variety of London's economic activities, and we will consider this in our development of the cost-benefit model in Section 5. In addition we will consider how DSF funded developments help to ensure vibrancy of the community and diversity, but with some limitations placed on our estimates, as there is little quantitative evidence to work with.

For instance, the present trend towards selling Inner London properties overseas may actually increase ethnic diversity, depending on the proportion of sales that result in year-round occupation. However, we argue in other sections of the report that it is unlikely to serve London or these boroughs in attracting the early career innovators who will create the London firms of tomorrow; that, on balance, it will result in less social and occupational diversity, and as a result some boroughs will suffer a loss of community.

²⁷ However one views it, the increase in London house prices represent a transfer from the [on average] less well off, to the [on average] more affluent. This is a quite straightforward implication of the econometric and mathematical models we consider in the following sections of this report.

²⁸ The greater potential impact from the, apparently receding, threat of Eurozone breakup is the exposure of UK banks, given their holdings of European (Greek, Portuguese, Italian, Spanish and Irish) sovereign debt. This seems to have receded somewhat, as the estimated exposure of UK Banks fell between 2010 and 2011 – though it still stood at £195 billion at the end of 2011, this is less than the exposure of French banks, which is almost double this amount (*Bank for International Settlements*)

²⁹ Ramidus Consulting Limited (2013), "Taking stock: the relationship between Businesses and Office provision in the City", *City of London Corporation*, Research Report, March.

²⁹ Ramidus Consulting Limited (2013), "Taking stock: the relationship between Businesses and Office provision in the City", *City of London Corporation*, Research Report, March.

³⁰ Urwin, P., Parry, E., Dodds, I., Karuk, V. and David, A. (2013), "The Business Case for Equality and Diversity: a Survey of the Academic Literature", *Government Equalities Office and Department for Business Innovation and Skills*, BIS Occasional Paper No. 4.

As the next section of this report suggests, housing policy in the UK aims to support disadvantaged groups through the provision of social housing, when construction projects are undertaken. Conversely, at the very top of the occupational ladder, wealthy individuals can locate in communities where free-market rents and purchase prices are out-of-the-reach of most. Few have considered the implications for communities that face the prospect of housing only the very richest (living in 'market-rate' housing) and only the very poorest (in social housing).

What do we lose if middle-income groups are squeezed out of Inner London boroughs such as Westminster³¹ and, as a result, what value do we place on retaining such parts of the community?

Similarly, what value do we place on the supply of housing to individuals who have grown up in Inner London boroughs, have found paying jobs that are valuable to the London economy; but, because they are working, they do not qualify for housing assistance? As a result, they are unable to live close to family and friends, in the communities they grew up in. What value do we place on retaining a sense of community, by giving local families the chance to continue to live in these areas?

To be clear, we do not underestimate the importance of social housing as a component of support to those who face disadvantage. However, the lesson from economic studies³² is that, individuals who remain unemployed or inactive in and around London are more likely to be in this position because they suffer from, often multiple, forms of disadvantage. In contrast, individuals in locations outside of the South East who are unemployed or inactive, tend (on average) to be unemployed because they are located in deprived areas.

More prosaically, those living in and around a city such as London (which is constantly creating new job opportunities), who still find it hard to get a job, need 'envelopes' of support that include more than just housing. In the next section of this report we describe the nature of housing policy in the UK and consider how it supports those in London who cannot afford to live in central locations. When viewed from this perspective, **DSF-funded developments are important as a means of providing accommodation for those who work in charitable sectors**, delivering the support that is needed for those who face multiple disadvantage.

³¹ When we speak of the squeezed middle in Inner London boroughs, the range of incomes we are considering is substantially higher than that seen in existing studies of the squeezed middle (see for instance, various publications from the Resolution Foundation). Rather, we are thinking of individuals on incomes between £30,000 and £50,000, and couples/families on joint incomes up to £65,000.

³² Little, A. (2009), "The spatial pattern of economic activity and inactivity in Britain: people or place effects?", *Regional Studies*, Vol. 43, No. 7; pp 877-897"

3. UK Housing Policy and the case of Westminster

The Government's overall aim for housing policy can be summarised as, a decent home for every family at a price within its means, located within a sustainable mixed community³³.

Local authorities in Great Britain, each charged with the obligation to ensure that its local population is adequately housed, have for a number of years given consideration to the challenges that are most relevant to their own position. Housing provision involves not only procuring sufficient housing of the right standard but also the continued maintenance and upgrading of that housing.

Most local authorities face an increasing need for housing resulting from inward migration, although Glasgow³⁴ has long seen its population move away. Office for National Statistics³⁵ estimates from 2005, suggest that Westminster will see its population rise by over a quarter by 2021. In addition, every part of the housing market is impacted by the ever-reducing average household size, which leads to a need for more housing units, even without population inflows.

Cost and affordability of housing is receiving more focus. Westminster has suggested³⁶ that it is in danger of becoming a place where only the very rich and very poor live. Bone and Reilly 2010³⁷ suggest that today it is not just those on low incomes who are experiencing housing affordability problems; degree level and young professionals, some with well above average earnings, are also experiencing great difficulties in accessing and affording housing.

Edinburgh has identified³⁸ a housing need for professional and higher earning households choosing to rent and able to afford to pay a mid-market rent level. The failure of supply to keep up with demand for housing units has increased prices faster than salaries, making purchase increasingly unattainable (op. cit.).

³³ Chartered Institute of Housing (2006), *Creating and Sustaining Mixed Income Communities*.

³⁴ Glasgow City Council (2009), *Glasgow Housing Issues*.

³⁵ Westminster City Council (2011), *Westminster Housing Commission 2011/2*.

³⁶ Westminster City Council (2007), *Westminster Housing Strategy 2007/2012*.

³⁷ Bone, J. and O'Reilly, K., (2010), "No Place Called Home: The Causes and Social Consequences of the UK Housing 'Bubble'", *British Journal of Sociology*, Vol. 61 (G); pp 231-255

³⁸ Scottish Government and City of Edinburgh Council (2005), "Issues in Developing Urban Housing in Edinburgh to Meet the Needs of a Range of Households", *Scottish Communities Research Paper 69*.

As we suggest in the previous section of this report, Westminster (op. cit.) faces a range of issues that result from the additional challenge of very high numbers of overseas buyers pushing prices even higher. One of the issues is that many of the units sold (on some estimates, 10%) are second homes, and many are unoccupied for large amounts of the time. In Section 5 we consider recent estimates from Ramidus consulting that attempt to capture the extent to which this results in partial occupancy.

Given the shortages and cost of building land, local authorities are turning their attention to high-density housing and the impact it has on its population. Although many residents might have a negative perception of high density housing, the *Commission for Architecture and the Built Environment* (2005) suggested that it can deliver a variety of social benefits. The Commission observed that much of the most desirable accommodation in urban areas is high-density but provides vibrant neighbourhoods; indeed having a mixture of different housing types, sizes, income ranges and tenures means that high density can provide the ability to move housing unit within the same community; it calls this “Building for Life”.

Allen (2006)³⁹ raised the question of exactly what is high density, making the observation that parts of London were considered high density at 150 dwellings per hectare while in Paris and Barcelona density was up to 400 units per hectare.

The article also noted that high density had the advantage of making local shops and services far more viable; in low-density locations, these are impossible to reach on foot. The UK property market has long had a problem with the provision of adequately supported local shops in suburban low-density areas. High-density housing will also make the provision of bus and other public transport facilities more viable. Having housing units in close proximity and in particular stacked on top of each other reduces energy loss and so reduces the cost of heating.

*The Waltham Survey*⁴⁰ examined the public perception of high density and found that design could have a profound impact on such perception. Good design can lead residents to perceive that a development is of a lower density than other developments when the opposite is true. Allen (2006) draws the conclusion that high density housing is best suited to single people and professionals, probably those who were identified by the Waltham Survey as having the highest willingness to care for their close environment; it also found that single people and professionals might be more willing to pay the higher service charges which come from high-density housing. Allen also proposes, perhaps surprisingly, that putting families into apartment blocks or high rise developments could help address the shortage of family-sized accommodation.

Most observers have suggested that high-density housing is best when there are local parks or green space – Mayfair is a good example. *Inside Housing* even suggested that open spaces and low artificial light levels could lead to a perception of lower density. Waltham observed that in respect of privacy requirements, noise had now overtaken the visual as the most important issue in layout and design. It is also worth noting that perceptions of high-density housing are often linked to experiences in the UK of social housing. However, social housing tends to have much higher levels of round-the-clock usage, putting pressure on resources; whilst the nature of private-sector high-density housing is very different.

The Waltham Survey examined the attitude of residents of high-density developments. It emphasises the need for a “sense of ownership without actual legal ownership” leading to an attitude in social housing occupants which is the same as that held by private sector occupiers who seek a good appearance and high levels of maintenance. It links satisfaction with housing to estate-management, frequently with local residents on a management board. This was reinforced in the *Communities Scotland* research paper 2005 that called for a sense of community and respect in high-density housing. The Localism Act 2011 promoted a new 2 year fixed-term tenancy for local authorities removing the current “for life” effective term. It proposed that this would make social housing a vehicle for progression and mobility.

Given the concerns over affordability for early-career professionals and graduates, and the willingness to consider high-density housing, there is increasing interest in *Intermediate Housing*. This is aimed⁴¹ at those who can afford to pay more than the price of social rented housing, but are unable to afford full-price open-market housing.

Inside Housing suggested that 2.5 million people fit into this category. Since 2000 Intermediate Housing has become a major part of affordable housing policy in the UK, but shared-ownership and shared-equity have been the main focus in the market, rather than intermediate rented units.

The specific characteristics of Westminster suggest a need for more intermediate rented accommodation, as it has a very different tenure picture from that of the UK as a whole (Westminster City Council, 2007; 2011). A more transient population results in Westminster having 35% of housing units owned (68% nationally) and 64% rented (31% nationally). Currently Westminster's rented sector is dominated by the private rented sector (58%) against 45% of rented units across the UK as a whole. Westminster claims very high levels of deprivation, which is supported by unusually high levels of Housing Benefit claims (although these latter figures carry a warning of unreliability).

³⁹ Allen, K. (2006), “Driven by Necessity”, *Inside Housing*, pp 35-37.

⁴⁰ Waltham Forest Council (2009), *High Density Housing Qualitative Study*, (“The Waltham Survey”).

⁴¹ Department for Communities and Local Government (2012), *Definitions of general Housing Terms*.



4. Productivity and Housing in Large Global Cities

In this section of the report we consider the academic literature that helps us understand the link between productivity, wages and housing in large cities such as London.

Section 4.1 outlines some concerns expressed by firms over the rising costs of housing and considers the average wage premium that workers can expect if they locate in London. Section 4.2 then describes some of the findings from studies that attempt to explain the possible drivers of the higher productivity experienced in large cities. The academic references in this section of the report are included in the final 'References' section of the report.

4.1 London's productivity and wage premia

There is anecdotal evidence that businesses in London are suffering from the high costs of housing. Vodafone recently said that the high cost of renting in London is deterring talented executives from moving to the capital – the suggestion is that firms are finding it hard to attract mid-level managers who earn up to £70,000 a year because this does not provide access to London rental accommodation⁴². Vodafone's spokesman asserts that London could be “on the edge of a housing crisis”, and this is echoed by other business leaders, with the latest CBI survey (July 2013)

underlining a worrying trend of London firms expanding, but doing so by leaving the capital – citing operating costs as the top problem and housing as the second (with transport third).

It is important to be clear that, if a firm weighs up all the costs and benefits, and decides to locate to an area outside of London, this is not something that would necessarily cause alarm. Those who have studied the literature on enterprise/job creation and destruction (Davis, Haltiwanger and Schuh 1996; Hijzen, Upward and Wright, 2010; Urwin, 2011) will know that any apparent stability of estimates of the net stock of firms and jobs in the economy, masks very high levels of underlying creation and destruction. Movement of some expanding firms out of London is to be expected, and only when we have information on the flows of firms into London can we comment on whether there is a problem. Similarly, any suggestion that high productivity workers are moving out of London, needs to be considered next to the evidence of flows the other way, and overall churn.

⁴² BBC London News (2012), London rents 'deter' talented executives, says Vodafone, December.

It is clearly a concern if the high cost of housing is having a negative impact on the operation of London firms and also if we have evidence that those needing to expand are often doing so outside of the capital. However, we need to take a balanced approach to these arguments. From the evidence presented in Section 2 there is a particular concentration of high productivity (and therefore high earning) individuals working in the capital who exert upward pressure on house prices. A vast body of empirical research shows that both firm productivity and workers' wages are higher in larger cities than in smaller locations or in rural areas. Higher productivity translates into higher wages for workers in London. The urban wage premium in Great Britain is 2.3% (D'Costa and Overman, 2013), meaning that workers with the same observable characteristics (such as age, gender and occupation), unobservable characteristics (such as their ability) and job types (such as industrial sector and part-time status) working in cities earn 2.3% more than comparable workers in rural areas. The estimated premium from working in London is much higher, at 7.1%.

The complaints of firms can be seen as a less desirable (but inevitable) consequence of the motivation for locating in central London - access to one of the richest labour markets in the world. In high-density cities the cost of land will always deter some elements of economic activity, and as some firms expand their operation they will reach a

critical point where location in London is no longer viable. The high cost of housing can be seen as a reflection of London's success, with the higher productivity of firms and individuals in the capital driving up property prices, and further economic growth producing an escalation of this effect. In this characterization, affordability of the housing stock is 'anchored' to the performance of firms and workers, with London's firms needing to be engaged in high value-added activities to keep location in London viable.

4.2 Explaining Agglomeration Economies

The existing imbalance between London and the rest of the UK, which as we have seen manifests itself through higher productivity and wages in London, is due to a self-reinforcing system of economic forces. The benefits of locating in a large agglomeration such as London – for workers as well as firms – are called agglomeration economies. Simply put, these economies occur when individuals or firms benefit from being located near one another. There can be agglomeration benefits in production as well as in consumption. Most of the focus has been on production economies, however as we will see, consumption economies are also very relevant in the case of London.

Agglomeration economies in production can be broadly categorized into three types (following Marshall 1890). The first type, input-output linkages, make firms

locate near their suppliers and customers as geographical proximity reduces transaction costs between them. The second type is labour market pooling, where there are productivity advantages for firms to locate in large labour markets, for example where a greater variety of skills are available or where there is greater flexibility and churn in hiring. Finally knowledge spillovers mean that with the geographical proximity of workers and firms there are greater knowledge flows and firms and workers learn faster from each other (see for instance, Rosenthal and Strange, 2004).

Another way of thinking about a classification of agglomeration economies is to investigate their underlying mechanisms. This leads to a classification into three mechanisms in Duranton and Puga (2004): sharing, matching and learning. This way of analyzing agglomeration benefits is particularly useful if we seek to understand the benefits of sub-market rental accommodation in London.

Agglomeration economies through sharing can occur if several firms employ workers from a common pool: the larger this pool the greater the number of skills available and product varieties that can be produced. The second mechanism responsible for agglomeration economies, matching, occurs because in larger cities like London it is easier for workers and firms with specific characteristics to find a good match. Therefore the occurrence of matching

and the quality of the worker-job match are both higher in London. This can happen in the case of employers and workers looking for each other but similarly in the case of firms looking for customers or the right suppliers. Finally, the learning mechanism favours agglomeration economies because distance reduces the extent to which workers and firms can learn and benefit from one another: in large cities like London there are more opportunities for face-to-face contact between workers or between firms and their customers and suppliers, whether formally in work settings or in social contexts.

In addition to the sheer size of a city, its diversity in production also has a key role to play. Sveikauskas (1975) estimated that doubling city size in the US would increase productivity by 6-7%, and most of the other existing estimates are of a similar magnitude. Puga (2010) provides estimates from a range of productivity studies suggesting that a doubling of city size increases productivity by between 3-8 per cent, depending on city size. The suggestion from Combes et. al. (2009) is that firms in large cities are on average 9 per cent more productive than in small cities.

In large agglomerations such as London, "urbanization economies" are at play: the benefits of size occur across all industries present in that city because the city is not only large but well diversified. Most of the research has found evidence that diversification has a positive impact on

growth. Glaeser et al. (1992) find that diversity enhances growth, while city specialization fails to do so; Rosenthal and Strange (2003) find that diversity increases firm creation; Henderson et al. (1995) find that diversity increases growth in high-tech firms. Most of the evidence shows that city specialization does not enhance growth and this resonates strongly in the case of London where one possible scenario is of a growing dominance of the finance and business sector to the detriment of economic diversity.

Turning to the labour market, existing evidence of higher labour productivity in dense agglomerations (Ciccone and Hall, 1996) and of higher wages in cities (Glaeser and Mare 2001) has been extended by more recent evidence on the dynamic benefits in cities. Using microeconomic data on workers' wages, De la Roca and Puga (2013) document the urban wage premium in Spain and show that it is due to workers accumulating valuable experience in larger cities. Moreover they show that this accumulated benefit from experience persists when workers relocate to smaller cities. Studying British workers, D'Costa and Overman (2013) show that there are persisting effects of past city experience on the wage growth of rural workers (compared to those without any prior city work experience). However in the case of London workers, the benefits seem to be concentrated on current employment in London rather than past experience, though the study does not capture international migration flows.

The urban economics literature also provides us with evidence that higher ability workers "sort" themselves into cities (see Combes et al. 2008 using French data and D'Costa and Overman 2013 using British data). This means that based on worker characteristics that we cannot observe and which do not change over time, such as ambition, ability, intrinsic productivity, workers with higher levels of these characteristics (for example higher ability workers) tend to choose to work in higher wage (and higher productivity) locations. This is in addition to the well-documented fact that large cities like London are more attractive to highly skilled workers, which is an observable characteristic as we can find out from microeconomic datasets the level of education or skill of the workers. The returns to skills are greater in cities that have a greater share of skilled labour and this evidence is reviewed in Moretti (2004).

Of course, agglomeration economies are offset by dispersion forces: if this were not the case, everyone would be living in London and other high-productivity cities. There are costs of agglomeration, which limit the process of agglomeration. First of all, in cities the prices of land and other scarce resources are also higher. Other dispersion forces include the high level of competition for products and labour, congestion in the transport network and pollution. Given the existence of these costs of agglomeration, it is not obvious that increasing the number of workers living in central London would be a desirable policy. However the case for ensuring a diverse set of workers in

central London can be made if we follow the suggestion that diversity of economic activity is seen as a more successful strategy than narrow specialisation in one or two sectors.

Thinking about this from the perspective of the people who live in London, is increased agglomeration a good thing? In London, where agglomeration economies are very strong, the net result of migration from other locations is greater population, higher wages and housing costs. The increase in wages is on average greater than the increase in housing costs and as a result average real wages are higher. However this is an average outcome and there are individuals for whom this is not the case. Those working in strategically important, but relatively low paid, occupations and sectors will find themselves squeezed out of central city locations and this is particularly evident for public sector workers who are underrepresented in expensive cities.

Our discussion so far has focused on production economies in cities. However in recent years urban economists have put forward the existence of consumption economies, whereby cities exist as centres of consumption and urban density is attractive to individuals for reasons other than higher wages. Glaeser et al. (2001) show that high-amenity cities have grown faster than low-amenity cities and that urban rents have gone up faster than urban wages in the US. The urban amenities they consider are the rich variety of products and services available, aesthetics and

physical setting, the quality of public services and finally, speed or the ease of access. In Florida (2002, 2003), diversity and creativity are drivers of innovation and growth at the local and national levels.

4.2 Diversity in Global Cities

In large agglomerations such as London, "urbanization economies" are at play: the benefits of size occur across all industries in a city because the city is not only large but well diversified. The idea is that with size comes diversity. In her seminal book *The Economy of Cities*, Jacobs (1969) argues that diversity in cities fosters cross-fertilization of ideas across industries, leading to innovation and growth. This is not about the benefits of geographical concentration of a particular industry in a particular location, but about the benefits arising from the size of a particular location, although both effects coexist.

Glaeser et al. (1992), considering the employment growth between 1956 and 1987 of industries that were among a city's top six industries in 1956, find that diversity enhances growth, while city specialization fails to do so. This suggests that knowledge spillovers are greater across, than within, industries and that cross-fertilization of ideas enhances growth. Henderson et al. (1995) find that diversity increases growth in high-tech firms. They consider the growth of three rapidly evolving high-technology industries and of five mature industries between 1970 and 1987. They find that city specialization has no positive effect on

growth in the high-technology industries, whereas it has a positive effect on the growth of the mature industries. The positive effect of specialization on the growth of mature industries was later proved to be due to a conceptual error in the measurement of specialization (Combes, 2000) and in fact when this is corrected it appears that specialization fails to foster growth, even in mature industries. In the same vein but based on French data, Duranton and Puga (2001) demonstrate that emerging industries grow in diverse cities then move to specialized cities when they have reached maturity. Finally, Rosenthal and Strange (2003) study firm births in the USA and find that diversity of industrial employment at the zipcode level increases firm creation.

Most of the evidence suggests that city specialization does not enhance growth while diversity does and this resonates strongly in the case of London where one possible scenario is of a growing dominance of the financial sector to the detriment of economic diversity. Saxenian (1994) argues that differences in economic performance between locations can be due not just to differences in technological capabilities, but differences in the environment and culture. She takes the example of Silicon Valley and compares it to Boston's Route 128, showing that Silicon Valley's better performance is a result of its superior entrepreneurial environment. Florida and Gates (2001) follow the same idea, although they focus on "bohemians".

They find that cities with many "bohemians" (creative cities) or with large gay populations (tolerant cities) innovate more. Another source of agglomeration economies other than that arising from greater productivity is the role of cities as centres of consumption. According to Glaeser et al (2001) there are four main ways in which this can happen:

- 1) There are goods and services such as opera or fine restaurants that are available in cities but not in rural areas;
- 2) Cities act as centres of aesthetic consumption (beautiful architecture);
- 3) Large cities offer public goods which cannot be offered in smaller locations (such as specialized schools);
- 4) Urban density favours speed of interaction between people (for example making social interactions faster and easier).

Following Glaeser et al. (2001), Glaeser and Gottlieb (2006) investigate the resurgence of US cities in the 1990s and find that it is due to increased demand for social interactions as well as a reduction in crime, which increases the ease of access to urban amenities. In Florida (2002, 2003), diversity and creativity are drivers of innovation and growth at the local and national levels. Florida highlights the role of the "creative class" in the growth and economic development of US cities. His "creative class" comprises two main types of workers.

The first one is a "super-creative core" of workers fully engaged in the creative process (scientists, engineers, researchers, educators, computer programmers, artists etc.). These workers, engaged in innovative activities and the production of new goods and services, are creative professionals, with a high level of education; and the "bohemians" defined above are also part of Florida's creative class.

There are a wide variety of reasons why workers, particularly skilled workers, come to London in spite of higher housing costs. In turn their presence feeds into agglomeration economies and contributes to higher local economic growth. The Dolphin Square Foundation's targeted action subsidizing rental housing can help to enhance local economic growth because it reduces the earnings-housing cost gap for a specific category of high skilled workers with underrepresented skills and those who constitute the "creative class". In turn this changes the composition of the local workforce, making it more diverse, which feeds into urbanization economies.





5. Building a Cost-Benefit model

We now have a good idea of the possible future growth scenarios for the London economy and our review of the economic literature on Cities has placed this within a wider academic context. From this basis we now develop a cost-benefit model of DSF provision of sub-market rental accommodation, with the specific example of One Church Square forming the focus of analysis.

5.1 One Church Square

One Church Square is a highly sustainable new building just a short walk from Pimlico station and to the amenities and transport hub of Victoria. The building contains 31 apartments for intermediate rent and features a landscaped roof garden available to all residents. Tenancies are for 3 years initially and interest free loans are available on furniture packs.

The main focus of this study is on the economic and societal impacts that arise from the provision of this

accommodation to individuals who would otherwise be priced out of Central London (specifically Westminster). The value of DSF developments to London and Westminster's economy and society, arise from the type of people that rent DSF properties, the jobs they do and their role in the community.

This section of the report describes the creation of such a cost-benefit model, the assumptions underlying its construction and the estimate of benefits that we arrive at.

The minimum household income required to achieve affordability is as follows:

Type of housing	Minimum household income	Maximum household income	Rent
Studio	£30,000	£65,533	£190/week
1 Bedroom	£35,000	£65,533	£250/week
2 Bedroom	£55,000	£65,533	£360/week
3 Bedroom	£55,000	£65,533 per individual applicant per room	£399/week

To make sure that we adopt a rigorous approach to evaluation, we consider the cost and benefits to the London economy of a DSF rental project, next to a representation of the world where the same development is rented and/or sold at market rates. Technically we call this alternative state, the counterfactual – as it is counter to the factual state of the world.

It is important to note that modelling the contribution of a DSF development involves a slightly different approach to that seen in much of the existing housing literature⁴³, as we are not taking into account construction costs/benefits to the local economy. The assumption is that these would be equivalent under both the scenario where DSF builds and rents the development, and the alternative state of the world where a market-based approach is adopted by an alternative developer.

5.2 Occupation and Industry

The approach is best understood by a detailed explanation of the process of construction of the model. Our starting point is the information in Figure 5.1 relating to individuals of working age who have are resident in 25 apartments at One Church Square⁴⁴, according to their stated occupation/industry sector.

To understand the approach to evaluation, consider the suggestion that there are a greater number of public sector workers than one would expect in a similar building provided in Westminster at market rents. More generally, we are likely to be observing a very different distribution of occupations in this DSF-financed project than if the same building were provided at market rents, not least because of the selection processes that DSF implement to select tenants. The key question for our cost-benefit analysis is therefore, how many teachers, civil servants, NHS staff and others would we expect to see in these 25 apartments if the DSF were not providing at sub-market rents?

Figure 5.2 provides a picture of the first step we take towards estimation of this situation. Carrying out an analysis of the January-March 2013 version of the Quarterly Labour Force Survey⁴⁵, we produce an estimate of what the distribution of occupations/industries from Figure 5.1 looks like for the Inner London resident population. This is our starting point for the creation of a counterfactual scenario, to see what we would observe in the absence of DSF intervention. The raw figures that inform the estimates presented in Figure 5.2 are included in the Appendix.

All estimates in Figure 5.2 are weighted to reflect the relevant population (in this case Inner London). More specifically,

Public and Voluntary Sectors

- Appendix Table 1 [LFS detailed Occ Inner London⁴⁶] uses LFS 2013 data to identify the number of individuals who are resident in Inner London, who work in the **Public Sector** and who are working in the relevant occupations⁴⁷. The suggestion is that this group

account for approximately 17.5% (274,962) of the Inner London resident population in employment.

- Appendix Table 2 [LFS detailed Occ Inner London] uses LFS 2013 data to identify the number of Teachers (Secondary, Primary and Special education) within this public sector grouping. The suggestion is that approximately 1.67% of the resident population of Inner London are teaching at this level.

Figure 5.1: Occupation/Industry of One Church Square Residents

Occupation/Sector	Number	Percentage
Public sector		
Civil Servants	9	23%
Teachers	2	5%
NHS Staff	3	8%
Charitable Sector	1	3%
Private Sector		
Financial/Banking Sector	7	18%
Software Analysts	4	10%
Architect	1	3%
Clinical Research	2	5%
Mainstream culture	3	8%
Sales/Marketing	2	5%
Office Manager	2	5%
Semi-skilled manual	4	10%
Total	40	100%

⁴³ Econsult Corporation (2007), "Assessing the Economic Benefits of Public Housing", The Council of Large Public Housing Authorities: Kolbe, P., Schenk, S., Burrell, L. and Redding, S. (1998), "Affordable Housing in Memphis: Revenue Sources And Cost-Benefit Analysis", The Foundation for Home Ownership: Gumbo, G., Klaas, B. and Rain-Taljaard, R. (2009), "Cost-Benefit Analysis: Social Rental Housing", Social Housing Foundation

⁴⁴ This is the situation, as of November 2013. There are also two children and one economically inactive individual in the development, but these are not considered as part of the study.

⁴⁵ Office for National Statistics, Social Survey Division and Northern Ireland Statistics and Research Agency, Central Survey Unit, Quarterly Labour Force Survey, January - March, 2013 [computer file]. Colchester, Essex: UK Data Archive [distributor], May 2013. SN: 7277, <http://dx.doi.org/10.5255/UKDA-SN-7277-1>

Figure 5.2: Building the Counterfactual Occupation/Industry Distribution of One Church Square Residents

Occupation/Sector	Number (Inner London)	Percentage
Public sector	274,962	17.51%
Civil Servants	203,769	12.94%
Teachers	25,629	1.67%
NHS Staff	45,564	2.91%
Charitable Sector	61,362	3.91%
Private Sector		
Financial/Banking Sector	259,014	16.52%
Software Analysts	30,010	1.91%
Architect	17,859	1.14%
Clinical Research	5,175	0.33%
Mainstream culture	45,554	2.91%
Sales/Marketing	70,537	4.50%
Office Manager	4,340	0.28%
Semi-skilled manual	124,306	7.93%
Total	893,119	56.97%
Remaining	674,494	43.03%

Source: Quarterly Labour Force Survey, January-March 2013

- Appendix Table 1 also provides us with an estimate of the number of Health Professionals, Therapy Professionals and those working in Nursing and Midwifery who are public sector workers resident in central London. The very top health professionals in the public sector are not included in this, to better capture the relevant occupational/income groups. The suggestion is that 2.91% of working Inner London residents are **employed in the NHS**.
- The figure of 9.93% for **Civil Servants** is simply the remainder of public sector workers in the relevant occupational groups (i.e. 14.5% minus 1.67% minus 2.91%).
- The figure of 3.91% is gained from Appendix Table 3 [LFS detailed Occ Inner London], which suggests that 61,362 individuals working for **Charitable Organisations** are resident in Inner London and as a proportion of those employed this is 3.91%.

Private Sector

- Our figure of 2.91% for **Mainstream Culture** is the proportion of those resident in Inner London who are Artists; Actors; Entertainers & Presenter; Musicians; or Arts Officers, Producers & Directors from Appendix Table 2 (we have left out Authors, Writers and Translators because many will not be engaged in supporting mainstream cultural activities in

London, and this seems justified as this offsets those within the included groups who are similarly not relevant to our analysis).

- Appendix Table 2 also allows us to identify **Software analysts** (Programmers and software developers; and Web design and development professionals); **Architects**; those employed in **Sales/Marketing** (Business sales executives, Marketing associate professionals, Estate agents and auctioneers and Sales accounts and business development) and **Office Managers**. Appendix Table 4 [Industry and Occupation] analyses detailed industry sector and gives us an estimate of the numbers working in **Clinical Research** (Scientific Research and Development).
- Finally Appendix Table 5 [Industry and Occupation] provides us with an estimate of those from the relevant occupations working in **Banking and Finance**, and our estimate of **Semi-skilled Manual workers** is the taken from the figure for Routine Workers from this same Table.

Up to this point in Figure 5.2 we have accounted for 893,119 (or 56.97%) of those in employment who are resident in Inner London. We assume that the remaining unassigned group are a combination of remaining occupations/industry sectors (Appendix Table 5). From the discussions in this section it is hopefully clear that we now have

⁴⁶ The blue text in brackets details the tab within the excel spreadsheet where the relevant Table can be found.

⁴⁷ Inner London is the lowest level of disaggregation that one can achieve with the publicly available LFS data, and any further disaggregation would leave cell sizes unreliable – that is, if we go down to the level of Westminster using the LFS and further differentiate by detailed occupation/industry group, we do not obtain reliable estimates. The ‘relevant’ occupations within the Public Sector are those below the most senior managers and chief executives (to better reflect the relevant wage distribution).

a basis for the consideration of what the occupation/industry distribution of residents would look like in the absence of DSF intervention.

5.3 Earnings, Hours worked and Household Type

We now move on to consider the earnings figures, for both residents of One Church Square and the counterfactual situation. Figure 5.3 presents the relevant earnings information for residents in a format that does not allow identification of individuals and their earnings.

To calculate the value of resident earnings to the local economy we multiply these figures by the number of individuals in each type of apartment and then the number of relevant apartments.

The suggestion is that the value of total earnings to the London economy (and Westminster more specifically) is £1,324,860. One of the potential downsides of a DSF development is the consumption lost from higher earners who would have rented the properties in the absence of DSF intervention – by definition these individuals would have to pay higher rents and therefore likely have higher earnings⁴⁸. The question we need to ask is what is this loss?

Again we analyse the January-March 2013 LFS, to gain estimates of average (mean⁴⁹) earnings for individuals within the Inner London area. Appendix Tables 6 through to 9 [LFS 2013 Household Comp] set out the results of our LFS analysis of household type in Inner London, providing an indication of

Average Earnings for One Church Square Residents	
Studio	£33,800
1 Bedroom	£29,500
2 Bedroom	£34,100
3 Bedroom	£20,500

Average across individuals

⁴⁸ There is an argument that would suggest we take a proportion of earnings as the value to the local economy (i.e. that which is likely to be spent in the local/regional economy) but this brings in an additional amount of uncertainty, as it is not clear what this proportion should be. Here we treat both the One Church Square and counterfactual figures in the same way (i.e. sticking with gross earnings figures), to avoid an arbitrary decision on this aspect. If anything, this approach has the potential to underplay our estimates of impact, as counterfactual incomes will necessarily be higher.

⁴⁹ Ideally we would use the median as our measure of central tendency, rather than the arithmetic mean, as it is not influenced by outliers at the top of the earnings distribution. However, the data for residents is provided in the form of a mean, and therefore we compare like-with-like. Similarly, we often limit to full-timers when considering earnings and hours worked, but the figures for the DSF-funded development are not limited in this way.

⁵⁰ Focusing on the hourly earnings (estimated using the relevant income weight) of those who are employed in Higher managerial and professional, Lower managerial and professional, Intermediate occupations, Small employers and Own account workers, and those employed in Lower supervisory and technical occupations. These hourly earnings are then scaled up to weekly earnings using the LFS to calculate the average hours worked per week, for each of the relevant categories of household and then multiplied up to annual earnings by multiplying by 45 weeks (reflecting approximate average 34 days annual holiday in the UK).

what we consider to be the household types representing the relevant potential tenants for the categories of apartment set out in Figure 5.3.

For instance, from Appendix Table 6 we consider that households with 1 male, aged 65+, with no children; 1 female, aged 60+, with no children and 1 adult, under pension age, with no children as relevant to our consideration of Studio apartments. Having created these new categories of household living in Inner London that would likely represent the relevant possible occupants of our various counterfactual DSF apartments, we then use LFS 2013 data to calculate the average annual earnings of individuals living in this household type⁵⁰ (see Appendix Table 10 for details [Counterfactual earnings]).

Having calculated annual earnings for each one of our apartment types, we can then calculate what the total earnings would be for residents in a development such as One Church Square, in the absence of DSF intervention. We arrive at a figure of £1,487,280, which is £290,399 more than the total earnings we expect under the DSF-funded development.

5.4 Externalities, Productivity and Spillovers

Within the economic literature it is recognized that the value of an individual worker's productive activity is not always fully reflected in the value of the wage they earn. For instance, at Harvard University Prof. Eric Hanushek (2010) has estimated the *Economic Value of Higher Teacher Quality*⁵¹; showing that a small increase in teacher quality leads to substantial increases in the discounted future lifetime earnings of the children they teach. If we take Hanushek's most conservative estimate for a teacher who, in terms of quality, is at the 60th Percentile (slightly above the average) with a class of 30 children, the suggestion is that this translates into a gain of \$158,745 or £96,834.45 to the children they teach (and therefore society). Thus, when we are considering the additional teachers in DSF-funded apartments, compared to the counterfactual, Hanushek's calculations give us some indication of the value this has to the London economy and society⁵².

We are also able to draw on research that calculates the external economic value of a nurse⁵³ where the suggestion is that in the US national productivity is increased by about \$9,900 per year, per additional registered nurse (RN) and medical savings are worth an average of \$46,000 per RN. For each nurse this

⁵¹ Hanushek, E. (2010), "The Economic Value of Higher Teacher Quality", CALDER Working Paper No. 56, December.

⁵² It is more accurate to suggest that these values provide us with an idea of the 'scale' of these external impacts, as the values relate to marginal increases in teacher quality, not the actual value of a teacher.

⁵³ Dall, T. M., Chen, Y. J., Seifert, R. F., Maddox, P. J., and Hogan, P. F. (2009), "The economic value of professional nursing", *Medical Care*, Vol. 47, No. 1; pp 97-104; as reported in Keepnews, David. (2013), *Mapping the Economic Value of Nursing: A White Paper*, Seattle: Washington State Nurses Association.

translates into an additional external benefit of \$55,900 or £34,099 in sterling.

In addition to these research findings, we have also seen that individuals working in certain professions/sectors are essential to retain the diversity of economic activity within the London economy, but are particularly prone to being shut out of the housing/rental markets.

- Those working in areas that fuel London's Creativity, Innovation and 'New Movements' who are essential for the success of developments such as Inner East London's Tech City.
- Those working to support London's Mainstream Cultural Attractions.
- Those working in London's public services outside of Health and Education (Civil Servants) and those working in the Charitable Sector.

However, whilst there seems to be a strong argument that providing sub-market rental accommodation to these individuals has a value to the London economy, there is little specific research to draw on. McIntosh (2011)⁵⁴ utilises the findings of research from Dearden, Reed and Van Reenen (2005)⁵⁵ that suggests training leads to an increase in productivity that is double the increase in earnings. McIntosh (2011) underlines that estimates from Dearden et. al. (2005) 'consider only productivity spillovers at an industry level', and do not take into account wider social and economic

benefits. Following this research, our cost-benefit model assumes that immediate productivity impacts of workers are twice their wage and for teachers/nurses there are additional spillovers that we can estimate from the existing research detailed above.

For the other occupations that are essential to the economic diversity of London's economy, but would likely be locked out of the rental market in Inner London, we suggest multiplying the wage by three (to take into account the additional external value of these jobs to the London economy, in addition to productivity impacts that are roughly double the wage according to Dearden et. al.). This is not ideal, but it should be remembered that we are explicitly taking into account the counterfactual in these situations and therefore any increase in the scale of external impacts also increases the value of our counterfactual. The specific estimates and sources of information are included in Appendix Table 11a and 11b (which includes the relevant earnings estimates).

5.5 Local Economy and Community

In addition to the economic impacts of a DSF-funded development, there are also impacts that we might expect for the local community (in this case, Westminster). For instance, recent research⁵⁶ emphasizes that individuals in the 'civic core' (i.e. those who account for the vast majority of volunteering, charitable giving and civic participation) are much more likely to have lived in the same area for longer than those we observe with a lower level of civic engagement. DSF-funded developments have ties to the local community as one of the eligibility criteria for tenants and this is likely to result in higher numbers of DSF-development individuals who constitute this civic core. We use the estimated proportion of individuals identified in Mohan and Bulloch (2012) as our estimate of the proportion of counterfactual individuals who are likely to be in the civic core. Those engaged in regular volunteer work amongst One Church Square residents provide our estimate of the civic core for the DSF-supported development (which is higher, in line with our expectation).

We take the value of average earnings amongst employed Inner London residents (in appropriate occupations) and multiply this by the 14 hours Mohan and Bulloch (2012) suggest is the minimum number of hours volunteering over a 4 week period that the civic core engage in; we then scale this up to a

year. The screenshot of the spreadsheet model outlined in Figure 6.1 shows how little this adds to our estimated economic value and underlines how much we are missing of the value to the local community of DSF-funded developments. For instance, when we look at the age distribution of those in One Church Square and compare to the age distribution of the counterfactual group, the suggestion is that those aged 25 to 35 make up 69% of One Church Square tenants, but only 43.6% of our estimated counterfactual residents. The suggestion is not that 25 to 35 age group are any more valuable to the economy than others, but that these differences reflect a more general promotion of socio-demographic groups that are not as well represented in Westminster's local community – DSF-funded developments promote diversity amongst the local community, which otherwise risks becoming focused at the extremes of the income distribution; with only the very rich and the very poor (with housing support) being able to afford to live there.

Unfortunately, there are no further research findings on which to build an estimate of the scale of these possible impacts. However, the omission of these additional possible impacts allows us to suggest that the estimate of impact described in Figure 6.1 is relatively conservative, and counteracts any suggestion that we should be multiplying by something lower than a factor of three for the occupations that are essential

⁵⁴ McIntosh, S. (2011), "Measuring the Economic Impact of Further Education", Department for Business Innovation and Skills, Research Paper No. 38.

⁵⁵ Dearden, L., Reed, H., and Van Reenen, J. (2005), "Estimated Effect of Training on Earnings and Productivity, 1983-99", CEP Discussion Papers dp0674, Centre for Economic Performance, LSE.

⁵⁶ Mohan, J. and Bulloch, S. (2012), "The idea of a 'civic core': what are the overlaps between charitable giving, volunteering, and civic participation in England and Wales?", Third Sector Research Centre Working Paper 73, February.

to the London economy, but which do not have research findings to justify estimated external impacts. Similarly, the figures for the public sector and charitable workers for our counterfactual example will likely include residents who are located in Inner London as a result of other key worker schemes or something similar, potentially under-estimating DSF-development impacts. Also, our counterfactual figures are for Inner London as a whole, which includes some areas that are much less affluent than Westminster.

The final figure we arrive at for the economic and social value of a DSF development such as One Church Square that houses 40 individuals, is approximately £600,000 per annum. This final figure includes an estimate of 10% for partial occupancy, taken from research carried out by Ramidus consulting⁵⁷. Given our approach to estimation this is not something that can be turned into a cost-benefit ratio (as we assume that costs are the same on both sides of the analysis), but it does suggest that even such a relatively small development makes a substantial annual contribution to the sustainability of the London economy and local community (although we are not able to capture the full extent of the latter).

⁵⁷ Under the counterfactual scenario we would expect some of the properties to be sold and some to return to the market for renting, but as a result a proportion would remain partially occupied. By definition the DSF-funded study does not suffer from this problem. It is hard to get an estimate of this, but Ramidus consulting have estimated that in some super-prime and prime developments, over the year there are only approximately 60% in occupancy. Clearly this is a figure higher than the one we would expect for much less expensive apartments, but we would suggest a figure of 10% is particularly conservative.



6. Conclusion

There is much talk of the need for London to be economically diverse, especially following the financial crisis that highlighted the pitfalls of over-reliance on one or two sectors.

Similarly, demographic diversity is a stated aim of many policymakers who rightly highlight this as a central strength of the London economy. However, both socio-demographic and economic diversity are threatened by the rising cost of living in London – on present trends we will see a further move towards only the very rich and the very poor being able to access housing in London. This has both social and economic implications, as we face the possibility of high-paying sectors such as Finance and Business Services crowding out a variety of other economic activities.

In this study we have attempted to capture the value to London of a Dolphin Square Foundation development that helps to retain some of the economic and social diversity that is essential to London's prosperity. As a result of the focus of existing research, we have been able to go further in capturing the economic value of DSF-funded developments than the social value to local communities, but even so we have uncovered a substantial contribution. We have attempted to adopt a particularly rigorous approach by setting out the state of the world in which we observe DSF-intervention and comparing this to a counterfactual or 'business as usual' state of the world. This has many

advantages, not least that it allows us to focus on the question at hand, rather than having to consider other issues, such as why people should live in central London rather than commute, as these arguments apply to both our DSF-funded scenario and the counterfactual equally.

Comparing the [One Church Square] tab with the [Counterfactual] tab in the accompanying Excel spreadsheet gives some idea of the difference that DSF-funding makes to the distribution of occupations, helping to retain an amount of diversity that we would not otherwise observe in Central London locations such as Westminster. We have been very conservative in our calculations, estimating the loss of income implied by this less affluent occupational distribution at £290,000, a figure that is derived using gross incomes, rather than net incomes and/or proportions which represent potential consumption expenditures. Similarly, our counterfactual likely overestimates the proportion of some key occupations and taken together these offset any concerns over the use of a factor of 3 for occupations not covered in the research into externalities.

Having calculated the value of these occupations to employers and spillovers to the wider London economy and

society, the suggestion is that a DSF-funded development is just under £500,000 more valuable. Taking into account a loss of income that is around £300,000 we have a raw figure of £200,000 per annum for the DSF-development. However, this does not take into account the potential for non-DSF funded developments to remain partially occupied for a large part of the year. Our estimate of this value is 10%, which is a very conservative take on the findings from Ramidus consulting and even such a conservative approach leaves us with an estimated net benefit per annum of approximately £600,000.

As we suggest in the main body of the report, this figure mainly captures the value to London of the economic diversity that DSF-funded projects help to retain, as we are only capturing a small amount of the value of diversity to the local community. However, it still underlines the need to accommodate the work of the Dolphin Square Foundation and other similar bodies in the planning rules that surround developments within London and other major global cities. They play an essential role in retaining the economic and socio-demographic diversity that is central to the continued prosperity of such globally important cities as London.



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