
LONDON: THE GLOBAL POWERHOUSE

FEBRUARY 2016

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Greater London Authority
February 2016

Published by

Greater London Authority
City Hall
The Queen's Walk
More London
London SE1 2AA

www.london.gov.uk
Tel 020 7983 4922
Minicom 020 7983 4000

ISBN 978-1-84781-619-1

Census data are adapted from data from the Office for National Statistics licenced under the Open Government Licence v.3.0

Acknowledgements: A number of people contributed to this report including Gordon Douglass, Alex Henson, Milja Keijonen, Joel Marsden, Francesco Mellino, Steven Spires, Brian Smith, Matthew Waite, and Louise Wilks.

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Introduction by the Mayor:

It gives me great pleasure to introduce you to this comprehensive new economic report on London. It is an excellent piece of work that will enrich the present debate and help enhance our understanding of London's economy.

The good news is that the report shows that London does very well on many international measures. This helps cement its claim to not only be the UK's global city but Europe's and the world's greatest city.

The report is filled with data and rich analysis that outlines both the challenges and opportunities ahead.

In my eight years at City Hall I have taken a strong interest in helping promote London, its businesses and what its people have to offer on the international scene. This has helped us to boost exports, attract investment and tourists and create jobs. It is vital that London continues to position itself in the changing global economy. I am therefore delighted that my Chief Economic Advisor, Gerry Lyons, has produced such a valuable piece of work.

A handwritten signature in black ink, appearing to read 'Boris Johnson', with a long horizontal flourish extending to the right.

Boris Johnson
Mayor of London

SUMMARY

London is the UK's global city. This data rich report suggests that it can also lay claim to being the world's leading international city. This report provides a detailed analysis of London's competitive position, outlining where London does well, future challenges and opportunities.

Although London is always thought of as an international city, the scale of the increase in its international population over the last two decades provides just one of many indicators of how much more international it has become. The overseas born population has risen from 15% (or 1.1 million) in 1971, to 22% (1.45 million) in 1991 and to 38% (3.19 million) now. This percentage of 38% now puts London on a par with other international cities such as New York, Los Angeles, Singapore, Hong Kong and Sydney, among others. Given the scale of net migration into the UK, and also London's appeal, who is to say this will not continue? In contrast, the numbers of UK born people living in London has stabilised in the recent census but is one million below where it stood at 6.1 million in 1971.

The other dramatic change over recent decades has been London's rise as a global services city. The rise of the City (London's banking and financial district) and of the business, professional and financial services sector has been a powerful driver of London's growth. Its world class tourist and creative sectors have helped too.

The future points to continued globalisation and increasing urbanisation. London, like the UK, needs to position itself to succeed in the changing and growing global economy.

- While London is not immune to near term economic uncertainty this should not cloud London's need to position itself for future global growth.
 - Cities are subject to economic cycles and this basic point must not be overlooked, particularly given the high level of house prices and what might happen to interest rates, eventually.
 - The global mix of growth is changing, with Europe accounting for less, and emerging growth markets for more. London needs to position itself in those markets, as well as the US, while remaining Europe's financial centre. London must be a place not only to do business "in" but to do business "from".
 - The increasing global focus on inequality reinforces London's need to focus on the living wage, and boosting opportunities through apprenticeships and further improving education attainment.
-

- Urbanisation points to more of global growth coming from cities. London must be prepared for increased competition, and must work with other UK cities for greater fiscal devolution.
- The global focus on sustainable growth reinforces London's existing policy of pushing a green and environmentally friendly agenda.
- Another global focus is on the quality of growth and need to enhance productivity. London needs to attract investment, enhancing productivity and ensuring high quality jobs are retained and created.
- The cost of living is high in international financial centres like London. London must remain an attractive place to do business, based on global access, quality of life, and also cost.
- Improved connectivity is vital in the 21st century. London needs to ensure the highest quantity of digital connectivity and to invest in its infrastructure to boost transport connectivity.

Chapter One, the overview chapter, looks at the London economy from a global and regional perspective. This chapter discusses the implications for the London economy, for business and for policy. It suggests that London is on the right track to address many of the consequences of the changing global economy. It also examines some of the policy issues and opportunities surrounding strategic thinking. These include big data, positioning to host future global events, the need for a convention centre, the night time economy, more centres of economic activity and improved digital and transport connectivity. The biggest immediate issue is the high cost of doing business in London largely because of high housing costs, and the economic issues around this are discussed.

Chapter Two of the report focuses on London's current economic performance. Given the scale of the financial crisis to hit London and the UK in 2008, London's resilience and job growth has been remarkable. Creating a competitive economy and a welcoming and enabling environment for business has been a key part of this. Although there are many reasons to be positive about London it is also important to keep this in context. When there has been a period of success it is not always guaranteed it will continue. Economic cycles exist and should not be overlooked. There are economic ups and downs and as chapter two highlights, there is a strong correlation between the economic performance of London and the national UK economy. Each influences the other.

Chapter Three surveys 'London's current position in the global economy'. It looks at areas in which the capital performs well in an international context such as in output, its educated workforce, and its attractiveness in terms of its business and lifestyle

environment. It then examines risks to this attractiveness, including those associated with the supply and cost of housing and office space, the cost of living in London, issues around transport capacity and the general liveability of the city such as pollution, crime and the availability of education and health resources.

Chapter Four looks at ‘the impact of foreign ownership on housing’, scrutinising how foreign investment in housing in London has evolved over time. How international buyers impact the demand and prices of housing in London are discussed and put into an international context.

Chapter Five scrutinises foreign investment (FDI) in a wider context. It surveys ‘FDI’ by looking at inbound FDI to London and the UK. It then examines inbound FDI to London by industry sector. Finally, this chapter compares London’s inbound FDI to its international competitors.

Chapter Six focuses on ‘tourism’. It details London’s tourism economy, and measures London’s appeal to visitors. People come here for London’s heritage, its thriving arts and creative sector and the fact it’s an exciting and welcoming place to visit. International tourism trends to London are then surveyed, before moving on to study London in the context of it being a centre for business tourism. Finally, it considers London’s airports in an international context.

Chapter Seven reports on ‘international migration’. This chapter sets out the stock of foreign-born populations across global cities. It then examines the drivers of and the reasons for migrating to London and the UK. Finally, an analysis of the reliance of different sectors on international migrants is provided.

Chapter Eight provides a brief summary and conclusion.

Appendices There are also a number of appendices. These include a data comparison between London and New York, some additional data and a summary of the London Infrastructure Plan. Like this publication that was another of the number of strategic reports that have been produced by The Mayor and the Greater London Authority (GLA) in recent years.

This report focuses on the current as well as the longer term strategic issues facing London. For those who would like more information on London’s economy, GLA Economics produce regular reports and updates which are available at: www.london.gov.uk

Dr Gerard Lyons

Chief Economic Advisor to the Mayor of London

About the authors:

Dr Gerard Lyons is the Chief Economic Advisor to Boris Johnson, the Mayor of London, a role he took up in January 2013. He advises The Mayor on economic and financial issues facing London and in this role he champions the London Living Wage, co-chairs the London Strategic Migration Partnership Panel, is a member of the GLA's Investment Performance Board and is a Commissioner on the London Stansted Cambridge Commission. He authored, 'The Europe Report: a Win-Win Situation' for the Mayor in August 2014. His first book, 'The Consolations of Economics', was a Daily Telegraph Book of the Year and was released as a paperback by Faber & Faber in June 2015. His current pro-bono roles include: Board member of CityUK, Advisory Board member of Open Europe, Vice-Chair of the 48 Group Club (that focuses on boosting UK-China business ties), Council of the Royal Society for Asian Affairs, Council of the Royal Economic Society, Committee member of the Hong Kong Association, Advisory Board of Official Monetary Financial Institutes Forum (OMFIF), Advisory Board of the Grantham Institute on Climate Change at the London School of Economics & Imperial College and on the Advisory Board of Warwick University Business School. Previously he spent 27 years in senior roles in The City at Chase Manhattan, Swiss Bank, DKB and Standard Chartered. Gerard has testified to the US Senate & Congress, Parliamentary Committees in the House of Lords and Commons, and has spoken at Davos, the IIF and IMF and at other global fora such as the EU-China Summit in Beijing. He regularly topped forecasting polls when in The City and the month before the financial crisis he was one of only two UK forecasters then predicting an imminent deep recession.

@DrGerardLyons

Nicholas Garrott is Special Economic Assistant to the Chief Economic Advisor to the Mayor. He studied in a number of areas at Manchester University including economics, history, politics and the European Union and carried out PhD research on urban development. He worked in The City for a number of years prior to taking on his current role in early 2013. A major component of his current role is the analysis of the impact of sovereign wealth funds and emerging market investment on the London and broader UK economy. He co-authored 'The Europe Report: A Win-Win Situation'. He also sits on the CityUK Independent Economist Group, the British Chamber of Commerce Economic & Trade Advisory Group and advises the Education and Employers Task Force on international issues linked to youth unemployment.

Matthew Waite heads up the GLA Economics team at the Greater London Authority, which he joined 12 years ago. GLA Economics provides expert advice and analysis on London's economy to inform the policy and investment decisions facing the Mayor of London and the GLA group. He has a wealth of experience in analysis economic policy and is an expert on the London Economy. Matthew's previous role was at the Government Economic Service where he worked at the Competition Commission, HM Treasury and Department for Education and Employment.

Gordon Douglass heads the macroeconomics team in GLA Economics which focuses on London's macroeconomy, macroeconomic data and economic forecasting. He also works on a wide range of other economic areas and has been with the team for eight years. Before coming to City Hall, Gordon worked as an economics lecturer at the University of Dundee and Newcastle University.

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Brian Smith works across a range of subject areas within GLA Economics, and has been with the team for four and half years. He leads on the analysis of tourism and the environment; as well as undertaking wider macroeconomic analysis on London's economy. Prior to joining the GLA, he worked in the GLA Economics team at the London Development Agency, and at the Department of Environment, Food and Rural Affairs.

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CHAPTER ONE: THE LONDON ECONOMY: AN OVERVIEW

By Gerard Lyons

What lies ahead for the London economy, and what are the key issues we should focus on? To help answer these, and other relevant questions, this report looks at London's economy through an international lens. In so doing, it makes comparisons with several other cities across the globe. It also addresses some of the key regional issues, particularly the relationship with the European Union and with the rest of the UK.

It has often been said that London is one of the world's greatest cities. Many factors can be cited to support this claim. The long list includes London's history and heritage, its legal system and freedom of speech and the English language - which is key for international business. Then there's our unrivalled array of social activities from sport and museums to pubs, clubs and a vibrant nightlife. London also offers an attractive environment in which to live with countless parks and green spaces. London is truly the world in one city, with British culture combining with other cultures to create a thriving environment. Finally, there are London's world class businesses and its booming economy, which offers many rewarding career paths and jobs. People might well list other factors. It is a long list.

Yet, for many, such claims mean little, with immediate concerns including the high cost of living and the challenge of finding somewhere to rent or live. These are never far from the top of peoples' conversations. Also, despite phenomenal wealth there is still much poverty. London has some of the poorest boroughs in the country. Many firms do not pay the London Living Wage, although they are obliged to pay the national minimum wage. Likewise while some multinational firms use London as their ideal base, whether for their global operations or more particularly for the EU, many small and medium sized firms, employing large numbers, find it a growing challenge to continue to compete. For such businesses, lower taxes and lighter regulations would help. In short, London is a city of many contrasts. As a result, it faces both challenges and huge opportunities.

One of the greatest challenges and opportunities for London is how it continues to handle the impact of globalisation.

What then is the global impact on London? The world economy is changing dramatically. There are many reflections of this that look likely to continue. These will have an increasing impact on all economies, including the UK and London. Across the globe, people see London as an attractive place in which to invest. There are many facets to this. London is a global or regional headquarters for many companies. Chapter 5 of this report shows that 40% of the top European companies have their headquarters in London. This compares to just 8% in Paris. For non-European firms 60% use London as their regional headquarters. Wealthy investors put their money into London property. When there are crises elsewhere - whether in the eurozone, or further afield - London has often been chosen as a safe haven for money. When it comes to prime London property it has been a case of “local supply meets global demand”.

Many global developments are likely to have a key influence on the future economic environment in which London and its people have to compete. Some of these include the emergence of new economic powerhouses such as China and India. This offers new markets to sell into, but also new competitors. New trade corridors will become more important. There will be increasing flows of goods and services, of remittances and of portfolio and direct investment flows. There will be greater movement of people between more regions of the world too. There will also be greater potential innovation and investment. There will likely be greater medical advances, prolonging life, but also there are likely to be setbacks too. The demise of antibiotics will potentially expose cities to greater problems. This short list presents a flavour of the global debate that London, as a major city, cannot be removed from.

In the past, London has shown an ability to embrace change. Now, more than ever, it needs to both play to its economic strengths as well as adapting and changing. London - and indeed the UK - needs to ensure it positions itself to succeed and prosper in this changing and growing global economy.

The overall picture, as this report concludes, is a positive one. The chapters that follow offer a data rich comparison of many of the economic issues that should be considered when we look at London. How does London compare and compete, and are there international best practices that can be adopted here?

This overview chapter covers a number of different areas:

- First, it is important to get a sense of the scale of London, so we look at its size, by population and economy. Is London's growing population a demographic dividend?
- Second, we then focus on some of the key global comparisons and issues.
- Third, we look at regional issues. This focuses on the relationship with the European Union. It also offers insights on the relationship with the rest of the UK and the case for fiscal devolution.
- Finally, the domestic implications. How does this global comparison feed into the domestic policy debate?

1. London's global scale

How big is London? Economists may look at gross value added, which is the standard way of measuring cities. For most people however the starting position is the size of population. So let's begin with this, particularly as it is the biggest single issue in determining future plans for London. London's population has continued to grow in recent years. **In 2015, the population surpassed its previous all-time high reached in 1939.** That it took so long to surpass the previous level should not be seen as a sign that the population may soon reach a new cyclical peak, then decline again. The likelihood is London's population is on an escalator path upwards. It is driven by a combination of factors: demographic and migration, and underpinning those, by the attraction of London now and its expected future appeal.

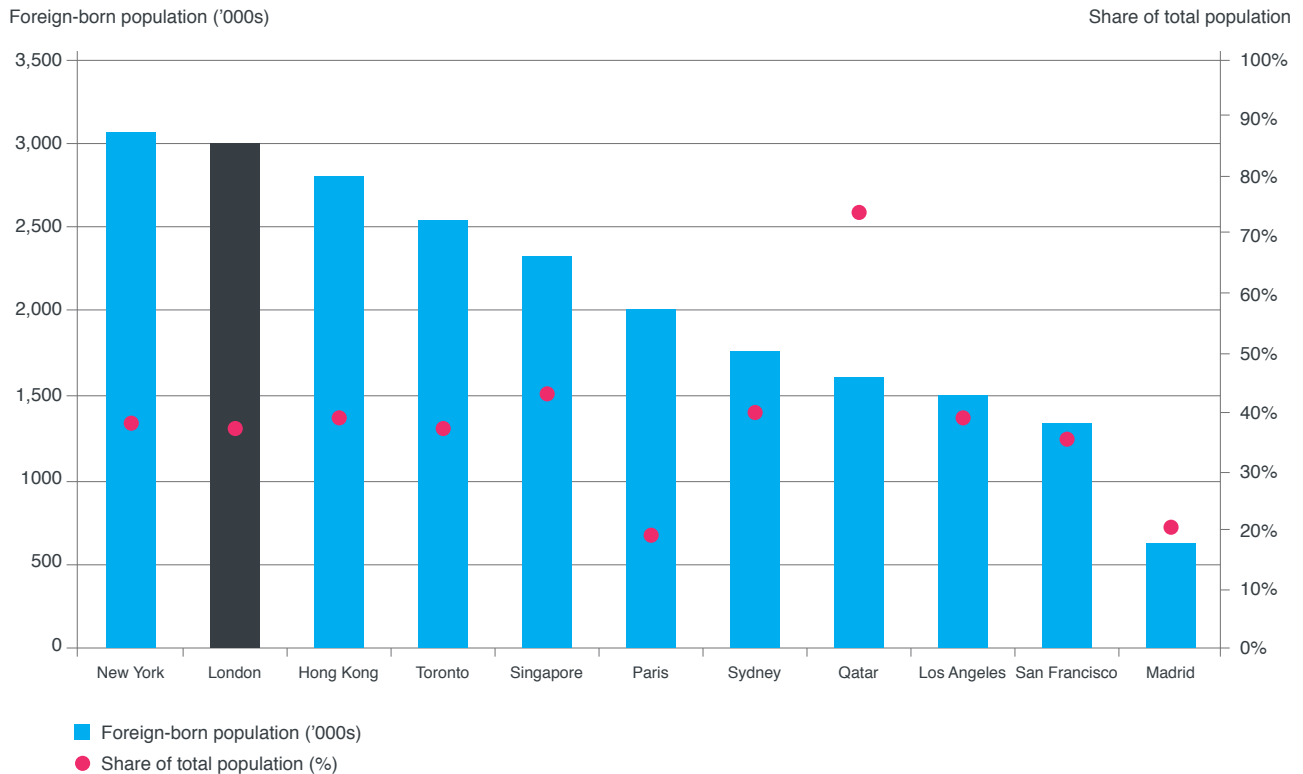
The post Second World War trend of moving from cities to the countryside, or just out of the city, to new towns is not the current norm. There are, of course, many who do move, for various reasons. Now, the trend is to want to move to cities, including London, and if already living there, to remain.

The growth of London's population is from more births and from people living longer. Also, there is a tendency for older people to stay in London, for a host of reasons, including access to services. The increasing number of births, meanwhile, is just one facet of this rising population that adds to pressure on services, like education and health care. In contrast, the rising number of older people puts more pressure on social services.

Then there is the migration component. Again there are two main drivers of this, one of which is internal migration, from elsewhere within the UK. The magnetic attraction of London - both because of jobs and also what can best be termed the 'London vibe' - means many people move here in their twenties, peaking at age 23, after college or university.¹ There is nothing new about this trend. By the time they are in their thirties and forties there has in the past been some movement out of London, largely to surrounding areas, because of changing family circumstances. Whether that aspect will continue can be debated. While this internal migration aspect is not new, the international migration dimension is. In many ways, it is this latter migration that has been the game changer for London over the last quarter of a century.

¹ ONS UK Annual internal Migration Report 2015

Figure 1.1 London's foreign population is on a par with other international cities
 Percentage of foreign born persons in total urban populations



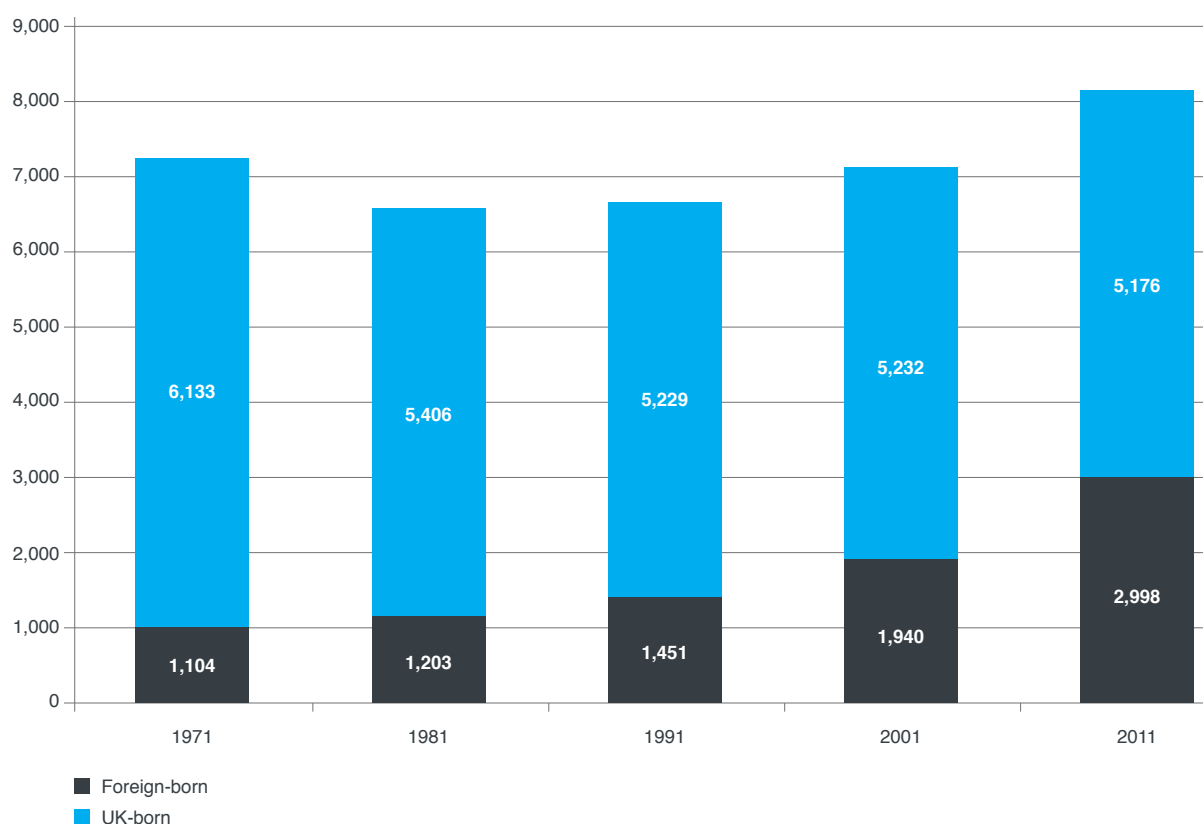
Source: GLA Intelligence

The UK carries out a census every decade, the latest being in 2011 and previous ones in 2001, 1991 and so on. Only 24 years ago, in the 1991 Census, the population of London that was born overseas was just over 1.2 million. By the 2011 Census, this was a fraction under three million. Based on the trajectory then, it could be close to 3.2 million now. If the official figures are not fully accurate, because of illegal migrants, it is more likely the numbers would be higher, not lower. At just under three million in 2011 or 3.19 million now, London is on a par with other international cities, like Los Angeles, Toronto, New York, Hong Kong, Singapore, Hong Kong or Sydney, as shown in graph 1.1 above.²

² GLA economics paper presented on 24 September entitled 'London's employment growth and Migration'

Figure 1.2 Size of domestic and foreign born populations in London 1971-2011

Foreign-born population in London '000s



Source: GLA Intelligence

Although London is always thought of as an international city, the scale of the increase over the last two decades is, nonetheless, remarkable. The foreign born population has risen from 15 per cent (or 1.1 million) in 1971, to 18 per cent (1.2 million) ten years later, 22 per cent (1.45 million) in 1991, some 27 per cent (1.94 million) in 2001 and 37 per cent (2.998 million) in 2011, to 38 per cent (3.19 million) now.³ Given the scale of net migration into the UK, and also London's appeal, who is to say this will not continue?

³ This extrapolation from 2011 to 2014 is via Dr Carlos Vargas-Silva, and a paper, 'Projecting migration and understanding gaps in data' he presented at City Hall on 24th September, 2015.

In contrast, the numbers of UK born people living in London has stabilised in the recent census. In fact it is well below that of the early 1970s, moving from 6.1 million in 1971 to 5.4 million in 1981, to 5.23 million in 1991 and 2001, to 5.18 million in 2011. So there are about one million less UK nationals living in London now than in 1971.

Economic migration needs to be seen as separate from asylum seekers, who are also only a small part of the overall figure.⁴ However, given recent attention on this issue, it is worth noting that of asylum seekers who applied to come to the UK between 2008 and 2014 around a third lived in London at their last contact with the Home Office.⁵ The main nationalities of asylum seekers in London are in order of size, Pakistan, Albania, Sri Lanka, Bangladesh and India. In the rest of the UK, the order is Eritrea, Iran, Syria, Sudan and Pakistan.

International migrants are increasingly significant in London's population and are becoming more important for employment. While it is often said that the UK needs high skilled, high wage jobs, and that is true, the reality in London is that there needs to be both high skilled and low skilled jobs. There is nothing wrong with this. However, it does reinforce the need to have the London Living Wage, affordable transport and housing.

London accounts for about half of UK net migration and about one-third of in-migration to the UK. The trouble is these figures could be an underestimate. The migration crisis of the summer of 2015 highlights a big risk. Namely remaining in the EU means the UK has effectively no control over its borders. In the year to June 2015 net migration to the UK was 336,000 with a high number from the rest of the EU.⁶ There seems little doubt that London has benefitted from migration over time, in cultural and economic terms. However, the scale of migration has led to an intense recent economic debate. Professor Rowthorn in a recent Civitas Report⁷, for instance, points out that most of the gains "could be achieved with a much lower rate of net migration." Overall, migration has been good news for London, but the scale of it is a future issue.

London's population has continued to rise since reaching its low of 6.7 million in 1988. The Mayor's latest London Plan points to the capital's population rising to 9.2 million by 2021, 9.54 million by 2026, 9.84 million by 2031 and reaching 10.11 million by 2036 – the plan's end year. By then London's working age population would have risen from 5.7 million in 2011 to 6.8 million in 2036. In global terms, by becoming a city of over ten million, London would be a 'megacity'. While its population would be well below some of the biggest cities in India or China, it would, as now, be the most populous city in Western Europe.

⁴ ONS Quarterly Migration Report (Nov 2015)

<http://www.ons.gov.uk/ons/rel/migration1/migration-statistics-quarterly-report/november-2015/stb-msqr-november-2015.html#tab-Immigration-to-the-UK>

Asylum seekers make up only 5% of long-term migration inflows). Whilst the amount has grown rapidly since 2014 up 19%) the total number remains low compared to gross immigration at 29,024 applications.

⁵ Home Office presentation, 'Asylum and Refugee Data' presented by Jon Simmons, head of the Home Office Science Service, to London Strategic Migration Partnership meeting, September 2015.

⁶ ONS Quarterly Migration Report (Nov 2015)

⁷ See 'The Cost and Benefits of Large Scale Immigration' by Robert Rowthorn, Civitas, December 2015

London's global scale by size of economy

While population may be one measure of London's scale, another is by the size of the economy. Measuring the economic size of cities is more complicated than that of countries. It is not always clear where the boundaries lie, whereas with countries it is. Furthermore, economic statistics are not always geared up to measuring the output of cities. Hence the most recent data available at city level may be older than that available at national level, and not as comprehensive. This in itself provides a future opportunity. Big data and technological change and innovation may make it easier to understand what is happening across cities, at a more granular level and on a more up to date basis. Alongside technological advances, this will help cities like London become smarter and better able to plan. This includes making more efficient use of energy and water, and of transport. Businesses, too, should be better able to use such data to better understand what is happening with the population. This will help them provide goods and services more efficiently to people. Just one example is that the UK is at the forefront of online shopping. This is already having a profound impact on London, with the high street changing - even shrinking - and delivery vans, or places to collect shopping ordered online increasing. Delivery vans add to congestion. The places to collect offer retail opportunities at stations and transport hubs.

As if to highlight the current challenge with data, take the widely used annual survey from the Washington based Brookings Institution's annual Global MetroMonitor.⁸ In its January 2015 report, London was ranked 16th by size of population, 5th by size of its economy, 43rd in terms of GDP per person and 11th in employment. Trouble is their definition of London had its population at 14.6 million, far more than the 8.6 million that we register it at. The London based Centre for Cities, meanwhile, cite London's population as 9.75 million, using the Primary Urban Area definition⁹, which measures the built up area of a city, as opposed to the GLA definition based on London boroughs. As mentioned above, this highlights the challenge of how cities may be measured in different ways. It also reflects the challenge of drawing conclusions from some surveys. Paris, for comparison, was ranked on Brookings' measure, as 24th by population, 6th by size of economy, 41st by GDP per person and 17th for jobs.

⁸ Brookings Global Metro Monitor for 2014, published Jan 2015 <http://www.brookings.edu/research/reports/2015/01/22-global-metro-monitor>
⁹ See Centre for Cities, 'Cities Factbook 2016'

But looking at London on this wide measure highlights its regional importance as a global megacity.

Nonetheless, international lessons can be drawn if one understands the underlying data used in surveys. For instance, Eurostat uses the latest national data, from 2013, to show that London would be the eighth biggest economy in the European Union. The ranking would be, by size of economy, 1 Germany, 2 France, 3 UK, (although France and the UK are so close as to be interchangeable), 4 Italy, 5 Spain, 6 Poland, 7 Netherlands, 8 London, 9 Belgium and 10 Sweden. While such comparisons can change slightly from year to year, clearly the message is that **London's economy is equivalent to that of a medium sized western economy**. By some way London is the largest city within the EU. In time this may reinforce the argument about devolving more power to how London governs itself.

In terms of GDP, per person, and using the idea of purchasing power that aims to correct for fluctuations in currencies and reflects what people can buy, Eurostat rates the top five as 1 Luxembourg, 2 Brussels, 3 Hamburg, 4 Norway and 5 London. There is also the issue of measuring the productivity of workers, which is covered below. This is increasingly a challenge in a service driven economy like London. As Chapter 2 of this report highlights, the size of London's economy reached £364 billion in 2014, versus £338 billion in 2013 and double its value in nominal terms compared to 1997.

Given this scale, London is clearly impacted by global developments. What then are the global issues that we need to judge London against?

2. The global backdrop

Urbanisation is a key driver across the world and is one of the major future economic themes. It will mean **cities will become bigger, more important and will house more of the population**. In the UK, for instance, younger people see cities increasingly as the place to work, live and socialise. Older people, too, appear keen to remain in cities, close to services.

Urbanisation means cities are accounting for more of global growth. This trend is expected to continue. As this trend continues one question is will it become self-feeding, or whether at some stage there will be a change in behaviour, in favour of the countryside. For now, most forecasters expect that the move towards cities will continue.

The economic might of London is predicted to remain. One of the most comprehensive reports on urbanisation is by consultants McKinsey's, projecting ahead over the next couple of decades.¹⁰ In terms of their top Cityscope's 25 hotspots by 2025:

Ranked by size of the economy, London is projected to be fourth, behind New York, Tokyo and Shanghai. London didn't make it into the top 25 by per capita. Here the lead is Oslo followed by Doha, with New York in 21st. By GDP growth London was ranked 12th, with New York and ten cities in China ranked higher.

In 2025 London was ranked as likely to be 14th in total population. Paris was the only other European city in the top 25, at 23rd. Ranked by children aged 15 or younger in 2025, London was seen as 18th. Kinshasa, Karachi and Dhaka were the top three. Paris 23rd.

By the total number of households, London was expected to be ranked seventh, with New York in sixth, and Paris in 12th. In terms of the numbers of households with high annual income, the top six were expected to be Tokyo, New York, London in third, Shanghai, Beijing and Paris in sixth.

Currently, according to consultants McKinsey, the top 600 cities account for half of global growth. In 20 or so years they expect this ratio to rise, with the top 600 cities then accounting for around two-thirds of global growth. While one may always question the exact ratio, few would disagree with the likely trend. Perhaps equally important is that there is likely to be significant change within the top 600. Currently 157 of the 600 are in western economies, in a couple of decades this will be down to only 20. More cities from across the emerging world are growing in importance.

¹⁰ See McKinsey & Company 'Urban World: Mapping the economic power of cities', March 2011. Also for a good discussion see the United Nations 'World Urbanization Prospects' 2014 Revision. And World Economic Forum 'The Competitiveness of Cities', August 2014

The message for London is twofold. One is that it must continue to build on its current strong position. This will ensure that it shares in the global trend towards more of global growth being counted for by cities. Two, is the need to be mindful of increased future competition. While no one would suggest that any of the new crop of mid or upper tier cities will challenge London directly, they could collectively provide competition. This could for instance be as new tourist centres, or by offering incentives to attract sporting events that might otherwise come to London, or as future convention or conference centres - an issue to which we return below.

From a global perspective, there is growing international competition from new emerging cities. **In the west, data throughout the report shows that the main world cities London will have to compete with are New York, Los Angeles and Paris.** In terms of international financial centres, one would also add Hong Kong, Shanghai and Singapore. The issue then for London is how to ensure that it stays ahead of the competition.

Jobs and the shape of the London economy

Perhaps because of its scale, London can claim to be both a specialised and a diversified economy. It is specialised in services, with the financial sector playing a dominant role. It is also diversified, with an increasing number of engines of economic growth. As a result, it can claim to be both one of the world's leading service and cultural cities. This is highlighted with detailed analysis in Chapter 2.

London's industrial structure has changed significantly in the last three decades. There has been a huge decline in manufacturing, and a strong shift towards a service-led economy.

Breaking down the London economy: services and finance lead the way.

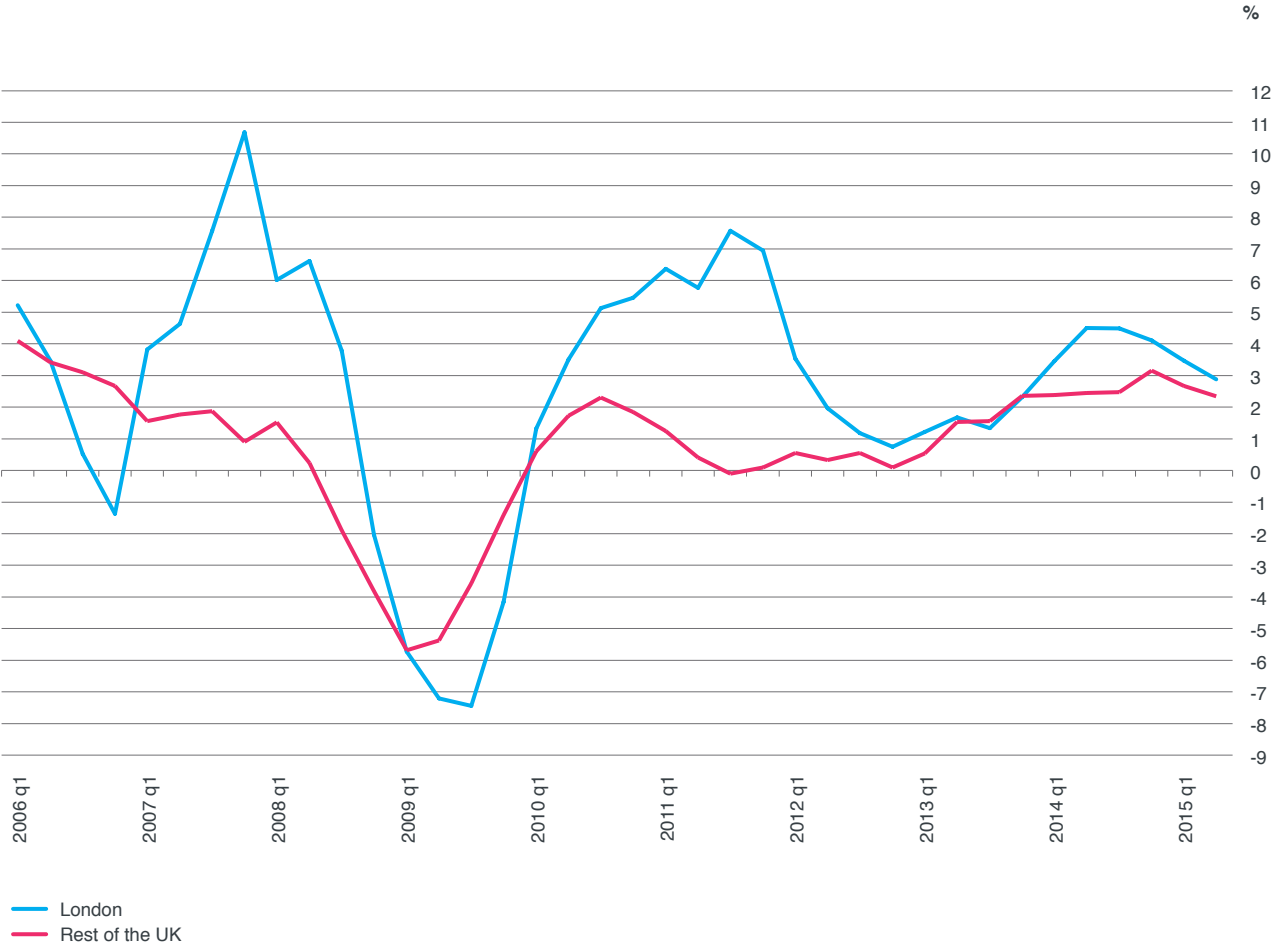
The importance of each sector to London's economy is: finance and insurance (19.8 per cent), professional, scientific and technical services (11.7 per cent), information and communication (11.6 per cent), real estate (9.8 per cent), wholesale and retail trade (8.3 per cent), administrative and support service activities (5.4 per cent), human health and social work (5.3 per cent), education (4.7 per cent), construction (4.5 per cent), transport and storage (4.3 per cent), public administration and defence (3.9 per cent), manufacturing (2.7 per cent), accommodation and food services (2.6 per cent), arts (1.7 per cent), primary and utilities (1.6 per cent) and other service activities (1.6 per cent).

Cities, like national economies, go through economic cycles. This is important to bear in mind now, at a time when there is much optimism about London's future. While that optimism is likely to be justified, it is unlikely to be a straight line path upwards.

London responded very well following the 2007-08 global financial crisis. It has since grown at a far faster pace than the euro zone, despite the European Union being its biggest export market. This shows how resilient London's economy may have become. While London needs to compete internationally, it is not immune to what happens in the national economy, where macroeconomic policy is set.

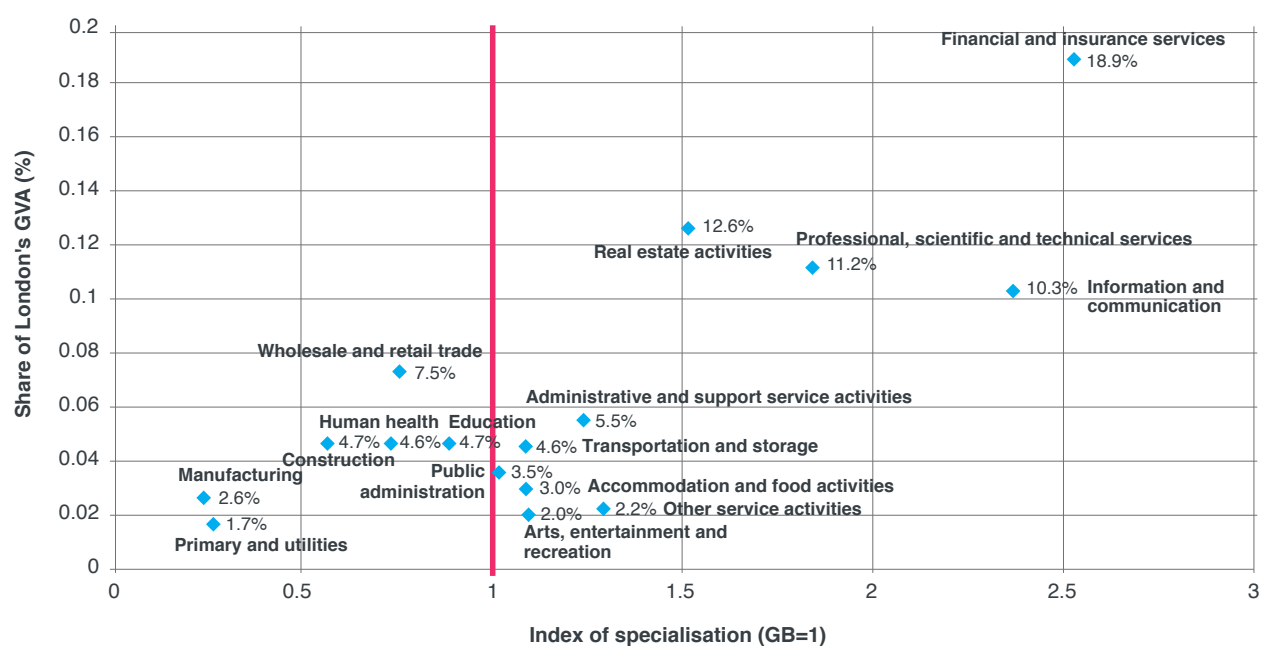
Figure 1.3 shows London’s recent performance, growing at a stronger pace relative to the rest of the UK. Compared with other parts of the UK, there are a number of sectors where London has high specialisation, as shown in figure 1.4. This figure is used later in the report, but it is repeated here as it is such a key graph in helping understand London’s specialisation. These areas of high specialisation are: ‘the City’ in terms of finance and insurance services; information and communication; professional, scientific and technical services; and real estate activities. Collectively these four account for half of London’s economy.

Figure 1.3: Real GVA growth in London and the rest of the UK year-on-year change



Source: Experian Economics

Figure 1.4: London's index of specialisation and share of London's total output, 2012



Source: Business Register and Employment Survey (BRES) - ONS, UK Regional Accounts – ONS

What about London's specialisation versus international cities? Given the importance of services to London – but given the challenge of having comparable data on exports for other cities – this report compares London with the G7 countries as this data is available. This highlights London's dominant position in financial services. Perhaps surprisingly, it also reflects strong positions in services for a number of countries. As the report states, both the US and Germany specialise in five service industries, France in eight, and some of those sectors are important to London's economy. With a likely focus on services by a number of the growing cities across Asia and other continents, the key message for London is not to be complacent. In a globalised world economy, skilled workers and firms with an international focus are all potentially mobile.

In terms of relative export specialisation, London has a particularly strong position in personal, cultural and recreational services and in financial services. Other important service areas include insurance and pension services, telecoms, computer and information services, as well as other business services.

London's exports in 2013 totalled around £140 billion with service exports accounting for the majority of total exports (77 per cent). Furthermore, London exported over half of all UK service exports, whilst London's goods exports accounted for around 11 per cent of total UK goods exports in 2013. The UK has a poor trade and current account position. There are many reasons but in terms of London, it is vital to focus on future growth markets at the national level, not focussing on key growth markets has not helped our goods exports performance but service exports to emerging economies have grown at a faster pace.

London's employment composition is different to the UK's. It not only differs to that of the likes of Manchester but also versus other developed economies such as Germany's. Manufacturing employment accounts for a much bigger share in both Germany (around 20 per cent) and Japan (around 17 per cent) than in London or the UK (just over 2% and 10% respectively).

The good news about London's economy is that it has a range of vibrant economic clusters now encouraging activity. The biggest is the City, with areas like law, consultancy and banking ensuring London has the highest number of skilled mobile jobs of any city in the world, beating New York.

Other exciting economic clusters have emerged in London in the last few years. Many are still in their infancy, but have huge potential. These include life sciences, spearheaded by MedCity. This is already making big strides in London and the South East being a world leading cluster in the research, development, manufacture and

commercialisation of life sciences. Another is financial technology, centred in Shoreditch and Croydon. This could have both a disruptive impact as well as open up vast areas of finance to a wider public audience, at home and overseas. Given the importance of the financial sector to London's economy it makes sense that London tries to encourage the fin tech sector to grow here. This is the sector that would benefit at the expense of the financial sector if it were able to disrupt it. The likelihood is both the City and fin tech will continue to thrive.

Then there is the university sector. Increasingly UK universities can compete at the highest level, but they require huge future financial resources to be able to continue doing this.

There are two other main world leading clusters across London, tourism and the creative sector. These are both interlinked, and feature prominently in this report.

Also, this scale of sector specialisation, particularly centred on the financial sector, has led to a concentration of activity in central parts of London. This is particularly around the West End and the Square Mile and also Canary Wharf. If one takes these regions, and a one km fringe around them, they account for 55 per cent of London's output, which is over one-eighth of the entire output of the UK.

While finance and insurance activities account for just under a fifth of London's economy in terms of jobs, the professional, scientific and technical sector is the largest employer.

The following graph, based on the 2011 Census, shows the number of foreign born workers by the sector in which they work. In high skilled sectors like financial and insurance services the figure is 28 per cent. However, it is not possible to say whether all these roles within these sectors are high skilled. Likewise the ratio is 22 per cent in the professional, real estate, scientific and technical sector. The highest share is in the accommodation and food services sector, where the ratio of foreign passport holders is 48 per cent. Some sectors clearly employ more than others. In terms of numbers, there are 123,000 foreign passport holders working in the wholesale and retail sector, followed by 117,000 in accommodation and food, and 113,000 in the professional and scientific sector. This shows that London is increasingly dependent upon foreign born workers.

Figure 1.5: London workers by industry and passport held, 2011



Source: 2011 Census, CT0385. Notes: All usual residents aged 16 or over in employment the week before the Census. The dataset counts each person only once so people only appear in one category irrespective of the number of passports held. In cases where a person recorded having more than one passport, they were categorised in the following priority order: 1) UK passport, 2) Irish passport, 3) Other passport. The data excludes residents that did not hold a passport at the time of the Census.

What about the productivity of London's workers? In recent years, there has been policy debate about our 'productivity puzzle'. UK productivity has lagged behind the US, although it is now more in line with other major European economies, where it once used to lag.

London's productivity outperforms that of the UK by 72 per cent. This picture is seen in some other large cities. For example, Paris outperforms France by 67 per cent and New York outperforms the US by 36 per cent. This perhaps reflects the tendency for large cities to attract clusters of high value added sectors. In the post crisis recovery of recent years, however, London's productivity has grown more slowly than elsewhere in the UK. This need not be of concern for a few reasons. One being that in recent years, employment growth in London has been high, growing at a faster pace than output. This explains why productivity growth has been less.

Also, in a service sector economy, it is possible that productivity growth may not always be the best guide, particularly if firms retain staff during a downturn and add to staff during a relatively subdued pace of growth, as has happened in London. Productivity matters at the national level as it is one of many factors that the Bank of England will take into account in setting interest rates, a key influence on the cost of living and doing business in London. Across London, a recovery in productivity will be an important influence on wage growth.

Often when it comes to comparisons, it is to New York as the Western hemisphere's other major financial and service centre that London looks. In part this reflects the view that London is Europe's main economic city.

The appendix in this report compares London to New York. The latest global financial centres index has London 1st and New York 2nd, as does the 'PwC cities of opportunity' index. Within PwC's index, in terms of technology readiness, London is 1st, New York 5th. On ease of doing business London ranks 3rd, New York 5th. In terms of cost, London is 15th, New York 9th. The population of both cities is similar, but employment in London is higher at 5.645 million versus New York's 4.2 million in summer 2015. Wages in New York, however, are higher, at £51,448 versus £40,903. Productivity is also higher, with output per head in 2013 at £47,891 versus £40,215 in London. New York, like London, is a services city, with large numbers working in finance and insurance. In a study of 22 high skilled sectors, Deloitte found that London was the largest employer among global cities, ranking first in 12 of the 22 sectors. In comparison, New York was first in seven, Los Angeles in two and San Francisco in one. London was seen as having more 'breadth and depth' in high value sectors than other cities.¹¹

¹¹ Deloitte Global Human Capital Trends 2015

Indeed, looking at employment in high value sectors, London had 1.5 million workers. This compares to 1.2 million in New York, 784,000 in Los Angeles, 630,000 in Hong Kong and 425,000 in Boston. Even allowing for the fact that not everyone employed in a high skilled sector is working in a high skilled role, these figures reflect London's increasing competitive advantage. The challenge, though, is that **in a globalised world economy such high skilled sectors can potentially move elsewhere.**

This is particular the case if the cluster of activities that help a city grow in these areas are threatened. So far London has been able to attract talent and also nurture its own, through its improving education system and excellence of its universities. Although the UK is a high tax economy for high earners, this has not yet proved a deterrent. Perhaps the immediate challenge is the high cost of living, including housing.

One reason to be positive about London's ability to retain its competitive edge in some of the high value sectors - and perhaps in new economic clusters as well - is its education system. This could help address future concerns about productivity too. The percentage of workers who have tertiary education is 53.7 per cent in London. The second highest is Madrid with 47.2 per cent and 45.9 per cent in Luxembourg - sometimes cited as a competitor in terms of banking. London's 53.7 per cent compares most favourably with far lower New York's 35.7 per cent.

London's ranking

There are of course many surveys of cities. What is most encouraging is how well London ranks in many of them. This is highlighted throughout the report and in the following table. London is ranked first in the following surveys: Cities of Opportunity 2014 – PwC, European Attractiveness Survey 2015 – EY, Global Destination Index 2015 – MasterCard, Global Power City Index 2015 – The Mori Memorial Foundation, The World According to GaWC 2012 – Globalization and World Cities (Loughborough University), European Cities Monitor 2011 – Cushman & Wakefield, Global Financial Centre Index 18 – Z/Yen, and European Digital City Index 2015, to name just a few.

Table 1.1: London's ranking in various surveys of cities

Survey where London came first	Survey where London came second	Survey where London was in the top five
Cities of Opportunity 2014 – PwC	Global Cities Index 2015 – A.T. Kearney	City Prosperity Index 2012/2013 – United Nations (4 th)
European Attractiveness Survey 2015 – EY	2025 City Competitiveness Index – The Economist Intelligence Unit	Innovation Cities Index 2014 – Innovation Cities (3 rd)
Global Destination Index 2015 – MasterCard	Sustainable Cities Index 2015 – Arcadis	
Global Power City Index 2015 – The Mori Memorial Foundation	Networked Society City Index 2014 - Ericsson	
Global Financial Centre Index 18 – Z/Yen		
Cities in Motion Index 2015 – IESE Business School		
The World According to GaWC 2012 – Globalization and World Cities (Loughborough University)		
European Cities Monitor 2011 – Cushman & Wakefield		
European Digital City Index 2015 – Nesta		
GfK/Anholt City Brands Index 2013		

London also comes top in many other categories, like the world's top tourist destination. It also regularly picks up awards related to culture, creativity and tourism. For instance, London was awarded 'Best City for Culture by Leading Cultural Destinations' in 2014. On the eve of last year's United Nations' International Volunteer Day, London was named 'European Volunteering Capital 2016'.

Table 1.2: International Tourism Forecasts 2011-2015

Millions of tourists

Rank	City	2011	2012	2013	2014	2015	Average annual growth rate	
1	London	15.3		15.5	16.8	17.8	18.8	5.3%
2	Bangkok	13.8		15.8	17.5	16.9	18.2	7.2%
3	Paris	14.0		14.3	15.5	15.6	16.1	3.6%
4	Dubai	9.9		10.9	12.2	13.2	14.3	9.6%
5	Istanbul	7.5		8.8	9.9	11.3	12.6	13.8%
6	New York	10.3		10.6	11.1	11.9	12.3	4.5%
7	Singapore	10.4		11.1	11.9	11.5	11.9	3.4%

Source: ICCA, GLA Economics

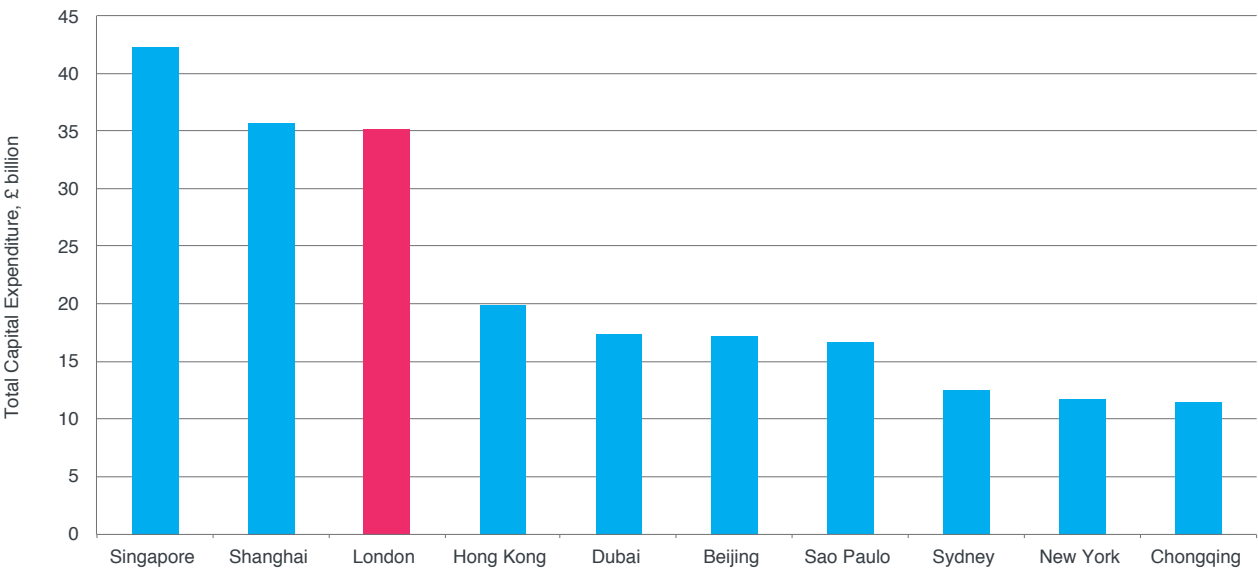
Also, one can add in many sporting events. Here it is hard to quantify, and also there is intense competition as others may offer attractive deals to host events. This includes the regular events hosted in London, like Wimbledon tennis, Test matches at Lord's and the Oval, or Premiership football. London has already secured several major events for the years ahead, including: 2016 Formula E Championships, 2016 European Aquatic Championships, 2016 Track Cycling World Championships, 2017 IAAF World Athletics Championships and 2017 IPC World Athletics Championships. These events will help sustain London's status as the home of world class sport. They will also ensure the facilities built for the London 2012 Olympic and Paralympic Games carry on being used for top international sporting events.

London's attraction can be seen in other, more quantifiable ways, such as its business appeal. **It ranks third, after Tokyo and New York, as a top city for global headquarters.** Tokyo has 613, New York 217 and London 193. Tokyo is dominated by Japanese firms, while the New York figure reflects the US's position as the world's major economy. In that context, London's position is particularly good. Also, as the report notes, according to the Economist Intelligence Unit, 'London is the only city in the developed world that rises significantly in terms of its economic strength between 2012 and 2025.' It ranked second to New York as internationally competitive, but came first for financial maturity, physical capital and for global appeal.

London also ranks highly in terms of foreign direct investment flows. Naturally it has a strong position within the UK, attracting two-fifths of inbound foreign direct investment inflows. Between 2010/11 and 2014/15 London received 37.6 per cent of total inbound projects, which created 24.1 per cent of jobs in the UK created by such inward investment. About 23 per cent of these were in ICT and electronics, about 20% in creative industries, 18 per cent in financial services and 17 per cent in retail trade.

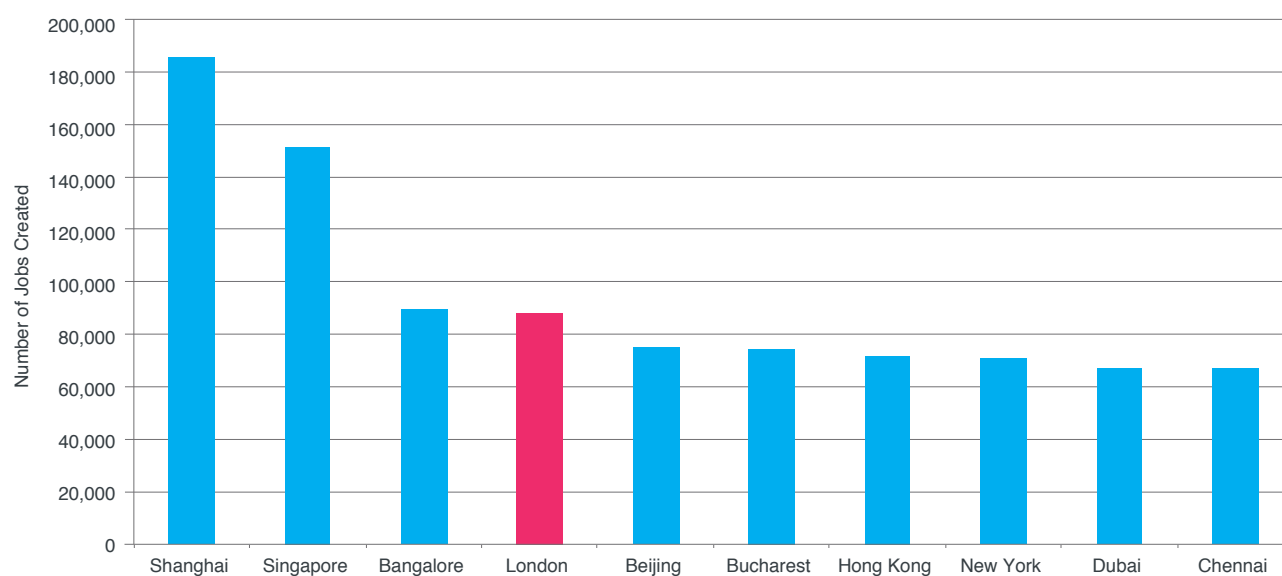
Globally, London has performed well in recent years, and between 2010/11 and 2014/15, London ranked second to Singapore in terms of inbound foreign direct investment projects, with 1,876, but well ahead of Shanghai in third place and Dubai in fourth. Hong Kong was fifth, New York was sixth and Paris seventh. However, the number of projects into both New York (852) and Paris (757) was less than half the number into London. In terms of jobs created by such foreign direct investment, Shanghai was top with 185,400, followed by Singapore 151,500, Bangalore 89,600 and then London 88,200.

Figure 1.6: Estimated capital expenditure of FDI investments, by destination city, 2010/11 – 2014/15



Source: fDi Markets, GLA Intelligence Calculations

Figure 1.7: Estimated number of jobs created through inbound FDI, by destination city, 2010/11 – 2014/15



Source: fDi Markets, GLA Intelligence Calculations

Despite this, London ranks poorly in recent quality of life surveys. This is an issue returned to below, in terms of domestic issues to be addressed. The annual Mercer 2015 Quality of Living index, which helps firms 'compensate employees fairly when placing them on international assignments', ranks the top five globally as Vienna, Zurich, Auckland, Munich and then Vancouver. London is ranked only 40th. The next highest UK cities are Birmingham in 52nd and Glasgow 55th.

While it would be wrong to dismiss or ignore the important message coming from such surveys, London's position does seem too low. Instead the flow of people, both within the UK to London and from overseas, would suggest that London, in reality, performs far better than its 40th place. Watching what people do - in terms of migration and where they want to move to - may be a better gauge than relying on surveys. Yet sometimes these surveys can be very subjective. As a result, this report focuses in detail on the data, with Chapter 3 looking at many of the health and quality of life measures. For instance, Map 3.3 shows that London enjoys green spaces in abundance, meanwhile Chapter 3 also points out that on the UN-Habitat City Prosperity Index London is 4th behind Vienna, New York and Toronto. The overall message is that there may be more to be done in this area of quality of life. Whereas it is a challenge to measure the quality of life, one can measure the cost of living. In this context, housing and renting are an issue, referred to below.

How then does one measure success for cities? Shell, the energy company, has done much work in this area. Liveable cities are described as having a combination of a high quality of life, a competitive economy and a sustainable environment.¹²

Shell's analysis found, "Despite the differences between cities, best practice does exist around urban development and how to manage it. Compact, densely-populated, well-planned cities with effective integrated infrastructure and services are more resource-efficient. With appropriate attention, they can also be attractive places to live." The implication for growing cities like London is that their layout is important for resource efficiency. This is because, "Compact and densely populated cities use less energy per person in transport because people live closer to where they shop, work and play. Residents commute less and, when they do, reliable public transport networks reduce car use."

¹² Shell sustainability reports: <http://www.shell.com/sustainability/sustainability-reporting-and-performance-data/sustainability-reports.html>

London needs to compete with other cities on quality and price. There are many ways London tries to position itself. The Mayor has an international investment agency called London & Partners (L&P). This promotes London and figures prominently in this report. Furthermore, the Mayor himself has either directly led trade missions or been on overseas trips to promote London and its business opportunities.¹³ The Mayor and City Hall have also cut council taxes, and introduced council tax breaks. **This is part of the overall aim of creating an enabling environment to improve the overall attractiveness of London.**

When it comes to competing with other cities, issues like taxes, housing and to a lesser extent transport costs, matter. UK corporation taxes are low, at 20 per cent versus a 22.2 per cent EU average and a 24.8 per cent OECD average, and below 40 per cent in the US. The plan is for them to fall further. In a globalised world economy, as recent experience in the UK has shown, there are now greater challenges to tax areas that are internationally mobile, such as multinational firms. In terms of income taxes, the highest UK rate, which is probably most relevant for high skilled mobile workers, is 45 per cent versus a 41.4 per cent OECD average and a 37.8 per cent EU average. Compared with other international centres, North America is 34.4 per cent, Singapore 20 per cent and Hong Kong 15 per cent. There is no justification to raise UK income taxes when looked at from a global perspective.

London's biggest current challenge is the high cost of living. It is the most expensive city in the world, with Hong Kong in second, New York third, then Rio and New Delhi. Apart from London, the only other European cities in the top ten are Moscow in sixth and Paris tenth. That means **the three most expensive locations are all international financial centres.**

The ability of London to remain competitive is central. Competitiveness can be assessed in many ways. It must be seen not only in the context against other major cities like New York, but also against potential future competitors.

¹³ The Mayor undertook 37 overseas trips on GLA business over the last eight years, including 11 trade missions, 6 to Davos, 4 Games related, 4 MIPIM, 3 C40 and 9 others

3. Regional issues

London dominates the UK economy. This dominance raises issues as well as opportunities.

Consider the regional issue often referred to as the north-south divide. It is not uncommon for capital cities to dominate national economies. However this tends to be truer of small to medium sized economies, and not large economies like the UK.

Although there is a tendency in the UK not to see ourselves as a large economy, this is more in relation to the US and China. While the US is the only economic superpower, the scale of China's economy suggests it may be heading that way in time, despite its present slowdown. Once one looks beyond those two economies, the UK is definitely a large economy. It ranks fifth, after Japan and Germany and on a par with France.

In terms of capitals, Lisbon is one-third of Portugal's economy, Stockholm is around 30 per cent of Sweden's economy, and Vienna - often ranked as one of the most desirable cities in which to live - is about 27 per cent of Austria's economy. These are a bigger proportion of their economy than London is of the UK. When it comes to large countries it is less common for the capital city to dominate. The other exceptions might be Madrid, which is about 18 per cent of Spain, and Seoul, a mega city of over 10 million people which is about 20 per cent of South Korea's economy. But in terms of major western European economies, Paris is just under a tenth of France's economy, while Berlin is about a 20th of Germany's. In the US, Washington is a small part of the economy, hence London is compared to New York.

The UK needs to be outward looking and global. Much of the economic debate is regional - on two levels. One is the regional comparison between other UK cities and London. The second is the regional focus on the UK's relationship with the EU. While that is important, particularly for the City and financial district of London, it should not be at the expense of the need to think globally. Consider each of these regional issues, as the first will be an important part of the future competitive position of London and the UK.

In the wake of the 2014 Scottish Referendum there appears to have been a surge in support for fiscal devolution across much of the UK. For an economy that is one of the most centralised in the western world, in terms of central government controlling the purse strings, this represents a step-change. London relies for 74 per cent of its income as grants from central government. In New York that figure is 31 per cent, Berlin 26 per cent and 18 per cent for Paris.

A change is long overdue, although not without problems. The last thing anyone wants is for the idea of devolution to unleash wasteful high spending authorities across the UK. Indeed, the concern for some is devolution is often spoken about in terms of new tax raising powers. This triggers the fear of even more taxes. In recent years, at a national level, the 'tax take' - or the amount raised in taxes - has found it hard to go above 38 per cent of GDP. This is way below the amount the government spends. So the debate has to shift away from taxing more to spending better. The latter is not always about shrinking the size of the state, but rather about how or where things can be done most efficiently.

To appreciate the case for devolution it is often about feeling that local issues can better be addressed if decisions are taken locally. That certainly is true for some things, like housing, but not for all. Major infrastructure projects require government support, long-term thinking and can also be costly. So it is about getting the balance right, in both economic and political terms.

In 2014 the independent cross party London Financial Commission, set up by the Mayor and headed by the LSE's Professor Tony Travers, argued the case for devolving more spending. In London, for instance, the case was made to keep the stamp duty raised in the capital and this would be offset by a withdrawal of grants. So if more power is given to local areas it is not a blank cheque from Westminster. It is about more accountability. Since then London has worked with other 'core English cities' on this agenda. At the same time, nationally, the government has put forward a 'northern powerhouse' idea centred on Manchester. All of these should be seen in the context of empowering more cities to encourage growth, attract more investment and provide new jobs. This outcome has to be good for regional economic growth and for the UK economy.

What is important is that we don't get bogged down in a debate about the north-south divide. The debate should be less about the north versus south and more about the UK versus the rest of the world. Moreover, it should be as much about greater connectivity within the UK. There are many clusters of economic activity across the UK, often around universities. In London, better transport links have helped open up and transform economies in certain areas. This should give confidence about the benefit of improved transport links across the UK, including London.

London already has a big regional impact. In 2013 the European Commission outlined the most competitive regions in the EU.¹⁴ Three of the top five were in the south of England, one was London, and the other two were there in the top five because of their economic proximity to London. Surrey and Sussex was the fifth most competitive region in the EU, Buckinghamshire, Bedfordshire and Oxfordshire was third. London was second. Furthermore, a significant minority of the over 5.6 million who work in London are commuters from outside the capital. As this report notes, there is now two way flow of workers, most into, but some out of London to work. This highlights the need for an integrated approach to issues, such as transport.

If one wanted an illustration of the interconnections between London and the rest of the country the new Routemaster bus is a perfect example. It is assembled in Ballymena and the engines come from Darlington, other parts from Telford, Huddersfield, Hoddesdon and Liskeard. Even the destination signs come from Manchester. Such home based supply chains are to be welcomed.

Many of the concerns implicit in the discussion of the north-south divide are often linked to poverty and are core issues. Yet there is no reason to think, as mentioned earlier, these are any less in London. One in five workers in London earns less than the London Living Wage. This helps explain why the Mayor wants to address these issues, pushing the London Living Wage and overseeing the building of more affordable homes. The number of firms paying this wage has risen sharply in recent years, while the number of affordable homes is increasing too. The opportunity is for cities across the UK - and the shires too - to work together. This will enable greater innovation and attract increased private sector investment. It will also encourage more infrastructure spending - particularly in transport and housing. Together, these will put the UK in a good position to grow.

¹⁴ European Commission JRC Scientific and Policy Reports – EU Regional Competitiveness Index RCI 2013

The EU debate

An important part of the global debate is the relationship with the EU. **In August 2014 the Mayor of London released a report that looked at the economic costs and benefits of EU membership for London.** It was called, 'The Europe Report: A win-win situation.' The title reflected the report's main findings that the best scenario for the UK was to be in a reformed EU. However, if the EU did not reform and the UK left, having good future relations with the EU and the rest of the world, this would be better, in economic terms for the UK than staying in an unreformed EU. That is, leaving and pursuing sensible economic policies would provide more than the status quo. The report looked at the likely impact on different sectors of the London economy, and also provided some macro-economic forecasts based on four possible scenarios.

The future economic and financial success for London and the UK will not depend solely on whether the UK is in the EU or not. Much of the debate gives the impression that the UK will succeed either in the EU - the 'yes' campaign - or only if it leaves - the 'no' campaign. It is more nuanced than this. Although staying or leaving is a vital decision, it is not the only thing that matters. Our analysis showed that the outlook also depends upon the policies adopted. If we stay in the EU, the key question is whether it will reform. For that to happen then UK needs to play an engaged role. The UK can only achieve serious reform if it is serious about leaving, and it can only be serious about leaving if it believes this is better than the status quo of staying in an unreformed EU. It is. Meanwhile, if the UK leaves, the outlook will depend upon the policies adopted outside and also on the relationship the UK has with both Europe and the wider world. An important point is whether the institutional structures that propel our economy and attitudes evolve to become flexible enough to prosper in the challenging environment of the global economy.

We looked at the relationship with the EU for all of the sectors of the London economy. For three sectors it was seen that 'a seat at the table' was of high importance. These were finance and insurance, the professional, scientific and technical sector, and transport. These account for one-quarter of jobs and one-third of the output of the London economy, although even within these sectors there were variations of view, depending upon the business model of the particular firm. For financial firms, the need to 'passport' services from London to elsewhere in Europe was seen as important, even critical for some. Within the City, however, many thought the biggest issue was the relationship between the eurozone and non-eurozone, and that this would be the case if the UK were to remain within the EU. Also it was felt that London faced no challengers to remaining Europe's financial centre, and that the growth of global business was a huge opportunity. Thus **the future competition was with other international financial centres outside the EU, such as New York, Singapore or Hong Kong, among others.**

Of the other sectors of the London economy, covering three-quarters of London jobs and two-thirds of its economic output, the need to stay in the EU was seen as less important. Although, again, the picture will vary across firms. Naturally for some firms it would be critical to have access to the Single Market were the UK to leave the EU. Some sectors had a high proportion of workers from the EU but from outside the UK. For example, this was the case for one in four workers in both construction and the food and accommodation sectors and one in eight in finance.

Leaving the EU would be an economic shock. Most, if not all, economic shocks depress economic activity. Thus economic forecasts that focus on, say, a couple of years ahead would tend to show that leaving the EU is always worse than the alternative. In compiling the Europe Report we felt it would be more meaningful to look at the likely impact longer-term, rather than just the initial shock period. Indeed the very fact that this referendum is taking place, four decades after the previous referendum, appears to support the case for a longer-term view. We decided to take a 20 year forecasting period, so as to include at least a couple of economic cycles. We commissioned a leading, independent economic forecaster Volterra, with the work led by economists Professor Paul Ormerod and Bridget Rosewell.

Four scenarios were looked out: the UK remaining in a reformed EU (that we called 'brave new world'), in an unreformed EU ('business as usual'), outside the EU on good terms and global in outlook ('one regime, two systems') and outside but not positioning ourselves well ('inward looking'). The London economy, in real terms that takes out the impact of inflation, was seen as growing from £350 billion to £640 billion in twenty years in the 'brave new world' scenario of a reformed EU. The second best option was in scenario 'one regime, two systems', being outside and on good terms with the EU and globally focused. This was seen as growing the London economy to £615 billion, an annual average growth rate of 2.5 per cent. Given the initial shock the economic path in this scenario could be seen as a 'v' or a 'tick', where there is a strong recovery after the initial shock. An unreformed EU scenario of 'business as usual' was seen as providing a 1.9 per cent average growth to £495 billion, and the outside, 'inward looking' scenario, only 1.4 per cent average growth, to £430 billion. These independent forecasts from Volterra are indicative, but highlighted the importance of a global outlook, being innovative, and of institutional change.

Clearly these forecasts show a higher downside risk outside the EU, highlighting the importance of the policy chosen. However, these forecasts also indicate there is uncertainty associated both in leaving the EU and staying in it. Perhaps this should not be a surprise. The EU has changed much since its origins, so its future path is also likely to be uncertain. In the early 1970s when the UK joined the 'Common Market' it was believed that the European economic growth model was more successful than the UK's. It was also expected that Europe's common agricultural policy would be changed dramatically and that a free market would persist. Now, Europe's economic growth model disappoints. Meanwhile, the common agricultural policy accounts for one-third of the EU's budget and the single market does not work efficiently in all areas. Critically it is clear that the UK has lost the capability to influence the direction of EU institutions since the creation of the euro area and since the signing of the Lisbon Treaty.

Jobs are clearly vital, as too are workers' rights. Both were seen as very important, particularly in our discussion with the TUC and with a number of sectors. It was important to avoid a race to the bottom on costs or wages, and it was felt many of the key issues here could be taken at the national level.

Reforms

Reform needs to be seen in the context of what is desirable from a UK perspective. It also must be seen in terms of what the EU needs to allow it to achieve better economic performance and address concerns about a possible democratic deficit. At the time that this report is being finished, the Prime Minister has unveiled the reforms that he has negotiated. This includes some of the key reforms outlined in our report. In that respect, London can take some confidence from the proposals made by the UK. In particular making the case for economic reform, and in the process, change the mind-set to make Europe more productive, outward looking and competitive. Of vital importance for the City and financial sector, is the future relationship between the eurozone and the non-eurozone economies. This latter issue is very important, including safeguarding the future rights of the non-eurozone countries not to be outvoted by the eurozone.

For further discussion of the EU issue I would refer you to the Europe Report we produced in 2014.¹⁵

¹⁵ The Europe Report: A Win Win Situation, August 2014 www.london.gov.uk/europereport

4. The domestic implications

So what are the lessons for London that we can draw from the global outlook?

First there were many lessons of the 2007-08 Financial Crisis, such as the ability to cope with shocks. Post crisis, global growth has been on a lower growth trajectory than before. World growth - in real terms, taking out the impact of inflation - has grown on average at just over three per cent a year in recent years. The global economy faces considerable near-term uncertainty that, given London's position as a leading financial and business centre, it cannot be immune from. Yet, despite the possibility of near-term cyclical challenges, particularly over the coming year or so, the likelihood is that beyond that the world economy will grow at a steady pace in the future. London must be positioned for this. **Near-term uncertainty must not cloud London's need to position itself for future global growth.** This will require investment and embracing change and new ideas.

A second issue increasingly important at the global level is how such growth is divided up, and where it comes from. Importantly, the global mix of growth is seeing less go to Europe. Meanwhile, emerging economies may currently be slowing down, but in recent years they have accounted for more of global growth and - led by China and perhaps soon by the likes of India, Nigeria and Indonesia - they will account for a greater proportion of future global growth. The US, too, retains a large slice of economic activity. As an international city, London cannot ignore this changing dynamic. It must position itself for these future growth markets. London needs to remain competitive and well positioned in Western markets too. **London must be a place not only to do business 'in' but also to do business 'from'.**

Third, **part of the global economic debate in recent years, has been an increased focus on inequality.** This is an issue that should never be off the agenda. Within London this feeds directly into the issue of housing, ensuring that London is able to retain its social integration. Also it is important that London feeds into the national debate in this area, as it did over tax credits recently. It also feeds directly into the focus on the London Living Wage and also into improving opportunities such as through apprenticeships, on the job training and educational attainment. One aspect of this report is the strong educational position of London.

A fourth global trend is the increasing divide between urban and rural areas. More of global growth is being accounted for by cities, a trend set to continue. What does such urbanisation mean for London? It points to increased competition from other cities across the globe, and **thus the need to remain attractive for inward investment and as a place for people to work.** Domestically it feeds into a debate that we have not really had in the UK about cities and rural areas and for London this is about

improved connectivity with surrounding counties. Also, when one considers these global influences on the UK and London it also directs attention back to the role of London in the UK. UK regional policy has gone through many gyrations, but there is no doubt that London dominates the UK economy. As such it acts as a magnet for increased flows of people, not just from overseas, but from within the rest of the UK. The issue this raises is the interaction between regional growth and London. It is important that London does not absorb more than its fair share of resources at the expense of the rest of the UK, yet it is also important that growing the rest of the UK should not be at the expense of London and its need to compete internationally. The case for fiscal devolution is likely to grow, which has important implications for the future funding of London as well as other cities, regions and shires.

Fifth, **is ensuring that the ingredients are there for the economy to keep growing in a sustainable way.** London is taking a proactive role - along with many other cities across the globe - in pushing a green and environmentally friendly agenda. For instance, the Mayor attended the 'C40' summit meeting of a confederation of major world cities working together to tackle global warming, in Paris in December 2015, at the same time as the UN Climate Summit. London has reduced carbon emissions since 2008 by 14 per cent, despite a growing population. In addition to energy efficient and green new buildings, London is also seeking to retrofit existing properties to make them environmentally friendly. There is also the challenge of air pollution, and hence a focus on new cleaner buses, cleaner vehicles and encouraging a healthy lifestyle, including cycling. It highlights not only the domestic benefits but the global opportunities from London's focus on an environmentally friendly agenda.

Sixth, is the quality of growth and **the need to become more productive.** At a national level in recent years there has been an increased focus on the need to improve productivity. London needs to attract investment, improve productivity and ensure high quality jobs are both retained and created. Productivity can be enhanced by London focussing on world class infrastructure and retaining a competitive edge in education.

Seventh, **the cost of living is a vital issue.** How can London ensure it is cost effective and not too expensive for people and firms? This links directly to the London Living Wage agenda, ensuring pay is sufficient. It also links directly to the cost of housing and rent. London must stay an attractive place to do business, based on global access, quality of life, and also cost.

Eight, **improved connectivity is essential in the 21st century.** For businesses this can be seen in different ways. Connectivity through market access is vital, not just new growth markets as mentioned above, but also, whatever the outcome of the UK referendum on the EU, it is vital for the UK to retain access to the single market. Connectivity through transport links - linking directly into the case for a new airport - and digital connectivity too.

Naturally it is hard to separate London's performance from that of the UK, and likewise many policy implications may need to be addressed at the national level, as well as where appropriate at the city level.

Chapter two of the report focuses on London's current economic performance. Given the scale of the financial crisis to hit London and the UK in 2008, London's resilience and job growth has been remarkable. Creating a competitive economy and a welcoming and enabling environment for business has been a key part of this. Although there are many reasons to be positive about London it is also important to keep this in context. When there has been a period of success it is not always guaranteed it will continue. Economic cycles exist and should not be over looked. There are economic ups and downs and as chapter two highlights, there is a strong correlation between the economic performance of London and the national UK economy. Each influences the other.

Chapter three shows how London cannot be immune to global developments. It considers how London compares in education, business environment, the creative economy and lifestyle.

Chapter four explores the sizeable inward investment into the London real estate sector. While some of this, too, may be a positive endorsement of London, it can, and does contribute to challenges. Indeed, sometimes, such real estate inflows to London may reflect its attraction as a safe haven in the face of problems elsewhere, whether economic, financial or political. That highlights the extent to which London is impacted by push factors elsewhere, and, as a global city, **it will continue to be impacted by the changing global economic climate.**

Chapter five looks at how London is a significant draw for foreign direct investment, London contributes to almost two-fifths of all inbound FDI projects to the UK. London's status as a global business location is shown through the examination of statistics on inward foreign direct investment; how it stands in the context of the UK as a whole, but also when compared to other major global cities. On the positive side, **London is able to attract significant inward investment, in the face of tough competition.**

Likewise, **chapter six** focuses on another big positive for London: its leading position in tourism. Owing to its heritage, it's thriving arts and creative sector and that it is an exciting and welcoming place to visit. All of these showcase London's magnetic appeal and attraction to investors and visitors.

Similarly, **chapter seven** investigates the impact of international migration on London's population over time, and considers the drivers and reasons for migrating to London.

As a consequence of the past changes in migrant flows, and with consideration of the UK visa system, the chapter concludes by considering the ‘reliance’ of London’s economic sectors on international migrants.

Few others have the brand that London has, which puts it in a strong position.

But, in the future, London’s growing population means it could face similar challenges to other megacities, where their size may become a disadvantage - too costly to live in, too difficult to move about in. In contrast, medium-sized global cities may establish themselves in certain sectors with specific niches. This future global competition can’t be ignored. Particularly if other cities are able to compete and establish their own distinctive brands. In this environment we expect significant investment elsewhere, with many cities investing heavily in their infrastructure and connectivity. Of course, **there’s every reason to think London will rise to the challenge, and its population growth becomes a demographic dividend.**

London faces an additional challenge. Its significant population growth in recent decades is already adding to strains on housing and existing transport links.

London must continue to invest in order to compete successfully in areas where it has a competitive advantage. It must also invest in the areas in which it wishes to lead, whether finance, tech, medical and life sciences, tourism or creativity and the arts.

At the same time, it needs to, as now, continue to focus on creating the enabling environment. This would help London retain its international appeal as the city where the growth creating sectors of the future want to be – just as fin tech and life sciences choose London now.

The City of London is one of the world’s leading international financial sectors.

In the wake of the financial crisis it has benefited from a significantly improved regulatory environment. In addition, London has taken steps to position itself as a leader in some of the growth markets of the future, such as the leading offshore trading centre for the Chinese currency, and also as a centre for sharia compliant finance.

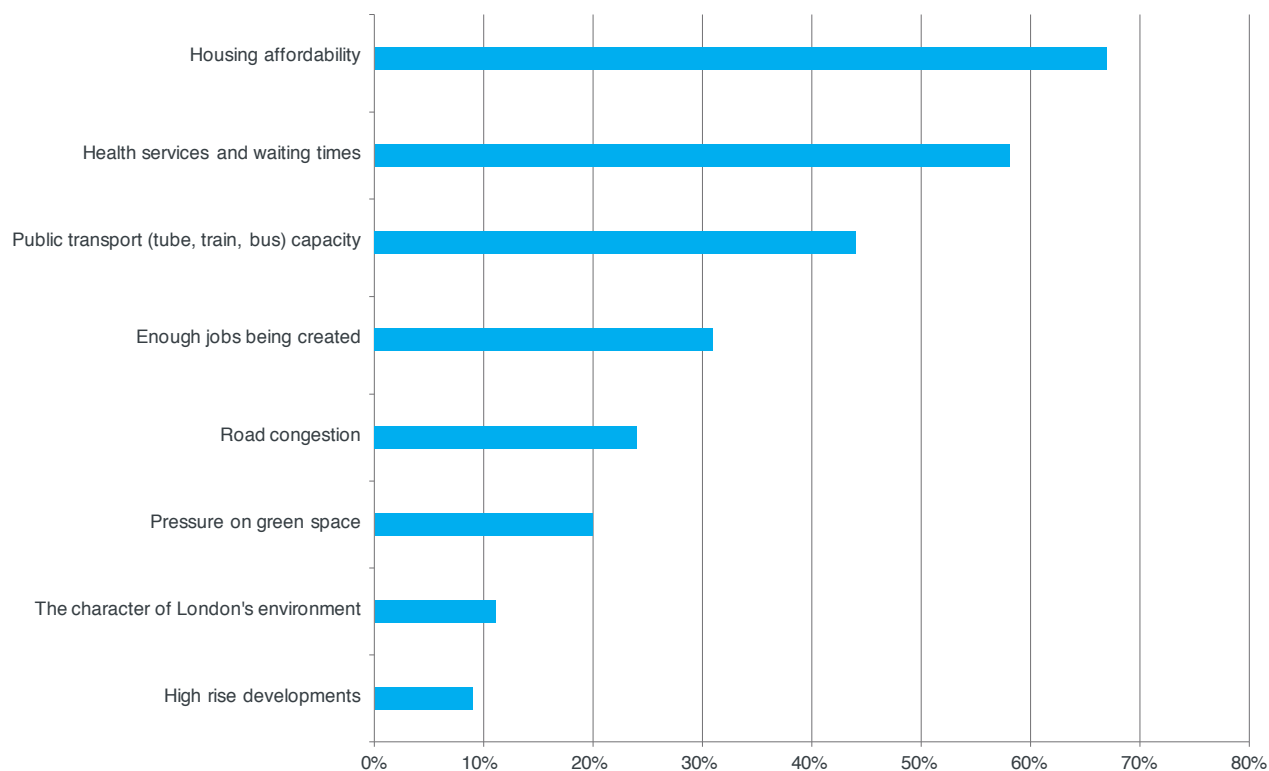
Many future opportunities may emerge, from which London could benefit. For instance, as the centre of the insurance industry, London could benefit from the potential growth of the insurance market worldwide, in many different areas. Likewise, The City may be able to develop more innovative ways of directing longer-term savings to fund future infrastructure needs¹⁶. Then there is the potential in areas such as financial technology and the digital economy. Again, the key issue to ensure the right business friendly environment for these to grow in London.

¹⁶ See a report by the London branch of the Institution of Civil Engineers, ‘Manifesto for London Infrastructure’ that talked about the reform in the way infrastructure may be financed.

The cost of business and of living

While London has much going for it, we must be aware of the challenges of the costs of both doing business and of living in London. **One of the continuing challenges is to ensure London is an attractive place to do business in as well as to do business from.** The report shows that based on foreign direct investment inflows London is in a strong position to grow. The report is littered with many examples to justify this, for instance citing the Economist Intelligence Unit's 'Hot Spots 2025 Report' with London second to New York, with London joint first in financial maturity, physical capital and global appeal. PwC ranked London first in 2014 as 'a city of opportunity'. But there are stresses that are recognised. On cost of living, UBS ranks London sixth, Knight Frank ranks London 13th out of 20 on affordability for graduates, behind Frankfurt, Berlin, Paris and New York. Mercer ranks London the 12th most expensive out of 207 cities and in a separate survey, 40th for quality of living. As table 4.9 in the report shows, with New York at a 100 on an indexed scale, London scores 75.5 on a gross measure of wages (that is three quarters of the New York level) and 12th globally.

Interestingly, there is some overlap between the issues highlighted by the global comparisons and Londoners' top growth concerns. As mentioned in the report (see figure 1.8), Londoners' main concern is, according to the GLA Polling Unit, housing affordability. This was cited by two-thirds of people. The other concerns, in order, were health services and waiting times, public transport capacity, enough jobs being created, road congestion, pressure on green space, London's environment and high rise developments. These concerns very much reflect the impact of a rising population, feeding concerns about housing costs and about pressure on public services, transport and green space.

Figure 1.8: Londoners' top growth concerns

Source: GLA Intelligence Unit polling¹⁷

¹⁷ This poll was carried out in 2015.

Strategic thinking

There is a strong case for strategic thinking. This is not so the Mayor or government can micro-manage. It is to create the enabling environment for businesses to grow and invest, generating jobs. It is also to ensure everything is in place for people to continue to want to come to London to work, live and play. **Currently a good strategic planning process is in place.** Indeed two of the strategic reports produced recently have been cited above, namely the Europe Report and the report of the London Finance Commission. Another is the London Infrastructure Plan. This report identifies the link between infrastructure and competitiveness, it also highlights the funding challenges ahead in that area and the key finding of this are summarised in the appendices. It will be vital to ensure that this evolves, to match international best practice, to ensure openness and accountability to the needs of Londoners, particularly as the city grows. It must also reflect devolution and ensure maximum use is made of the evolving area of big data. As far as we can determine London's strategic thinking compares favourably. However, many of the key challenges facing it need to be addressed in the context of overall national policy as well.

Strategic planning in London is the shared responsibility of the Mayor, the 32 London boroughs and of the Corporation of London. There is also a March 2012 government National Planning Policy Framework that provides guidance for local planning authorities and decision makers. **The London Plan is the main strategic document,** and the latest version was released in March 2015. The plan provides an integrated approach, combining economics, environmental, transport and social factors. It takes a 20 year planning horizon, in line with government recommendations, looking ahead to 2036.

The London Finance Commission showed that relative to other international cities London retained a far smaller proportion of the taxes raised in London. Of course, if London is to have greater control over spending then that brings with it, increased accountability, as well as openness and transparency. The areas where both power as well as finance needs to be ceded have to be agreed. But this will take time. In the interim it does not divert the need for London to continue to create an enabling environment for retaining and attracting businesses. London must remain proactive too in addressing areas vital for people's lives, such as transport and housing.

Big data

At a global level there is an increased focus on using big data to guide decision-making and to help provide more information to businesses. It feeds into the focus on smart cities. This means using data to shape better decision making in order to improve the quality of living – for example, by improving health outcomes, reducing crime, and cutting carbon emissions. At a national level, the UK has a Digital Catapult. This is a national centre to rapidly advance the UK's best digital ideas. Last year, in London, the Mayor announced the launch of Datastore 2. This is a free and open data resource for businesses, aimed at helping them carry out business in London.¹⁸ There is also Data City, Data Nation, a global data sharing initiative between London and Singapore. London sees itself as global leader in data driven innovation, while Singapore sees itself as a smart city. Just as big data helps combine data use, **so too by cooperating with other cities, can London share international best practice** - in this case creating a vibrant technology ecosystem. Improving consumer and business trust in data sharing is important, as is improving collaboration across leading cities.

Positioning for future events

The success of the London 2012 Olympics and Paralympic Games highlighted the UK and the capital's ability to compete for and put on a global event. The organisational set up required and the skill needed to compete for and win global events is huge. Naturally, with something like the Olympic Games it requires a mammoth effort at the national level that cannot be replicated. Nonetheless, the lesson is to ensure London has the resources in place to not only identify future events it should be competing for, but also ensure that it can retain those it has. This need not be only in sport, but perhaps in other areas. For example if London decided to launch a bid to host an international Expo in the future then it would need to have the resources to put together the case to do so. It suggests that both the UK and London need a permanent small group in place identifying and coordinating future bids in all areas, whether to host an Expo, business or sporting event.

¹⁸ DataStore2 launch <https://www.london.gov.uk/press-releases/mayoral/mayor-unleashes-power-of-city-data>

Convention centre

Does London need a major convention centre? This is a legitimate question to ask based on some of the figures in the report - hence part of chapter eight considers this issue. London currently lacks an interventional convention centre to host the huge international conferences that regularly happen. These bring experts in one field together and in turn trigger associated business and tourist spending.

London sees its main competition as being with other European cities. Analysis by London & Partners shows that London ranks sixth by number of meetings, and fourth by number of delegates. Paris ranks first in both, hosting 29 per cent more meetings than London and attracting 45.1 per cent more delegates. London's largest events spaces are ExCel (112,686 square metres), Olympia conference centre (42,496 sqm) followed by Wembley Stadium (11,472 sqm) and Alexandra Palace (10,666 sqm). By international standards, London is a comparatively small leading events city, and within the European time zone trails by some way cities like Istanbul, Paris and Barcelona. The challenge is highlighted when one considers venues based on indoor exhibition space. Germany has four of the top six global slots, led by Hanover whose indoor exhibition space is 466,100 sqm. Milan is third. The UK's highest ranking is the NEC Birmingham, which is 16th globally by size, while the ExCel is thirty sixth. Boosting conference capacity would also provide global hotel chains with a huge incentive to build a suite of hotels, next to the expanded convention location.

Night time economy

One area currently being examined at a national level is the night time economy. London has been liaising with other cities such as Amsterdam and Berlin to learn from their experiences. This offers great potential. London's night time economy (NTE), and the UK NTE has been valued at £66 billion, making up nearly six per cent of UK GDP.¹⁹ An indication of the growth in the NTE in London can be seen through the increased demand for late night public transport, like the night bus and the Underground. Night time bus journeys increased by around 170 per cent between 2000 and 2013, compared to almost 80 per cent for all bus journeys. While this was naturally from a lower level it reflects the changing dynamics of London's entertainment and cultural venues, which make it attractive to international businesses, tourists, and are an important factor in attracting people to live here.

The further development of the night-time economy can be enabled through development of 24 hour public transport services. In terms of the capability to run such a service, London is lagging behind its biggest competitors. Also, with ever-increasing globalisation, London will need the infrastructure in place to compete with the likes of New York, Tokyo, Amsterdam and Berlin, as well as the world's emerging economies.

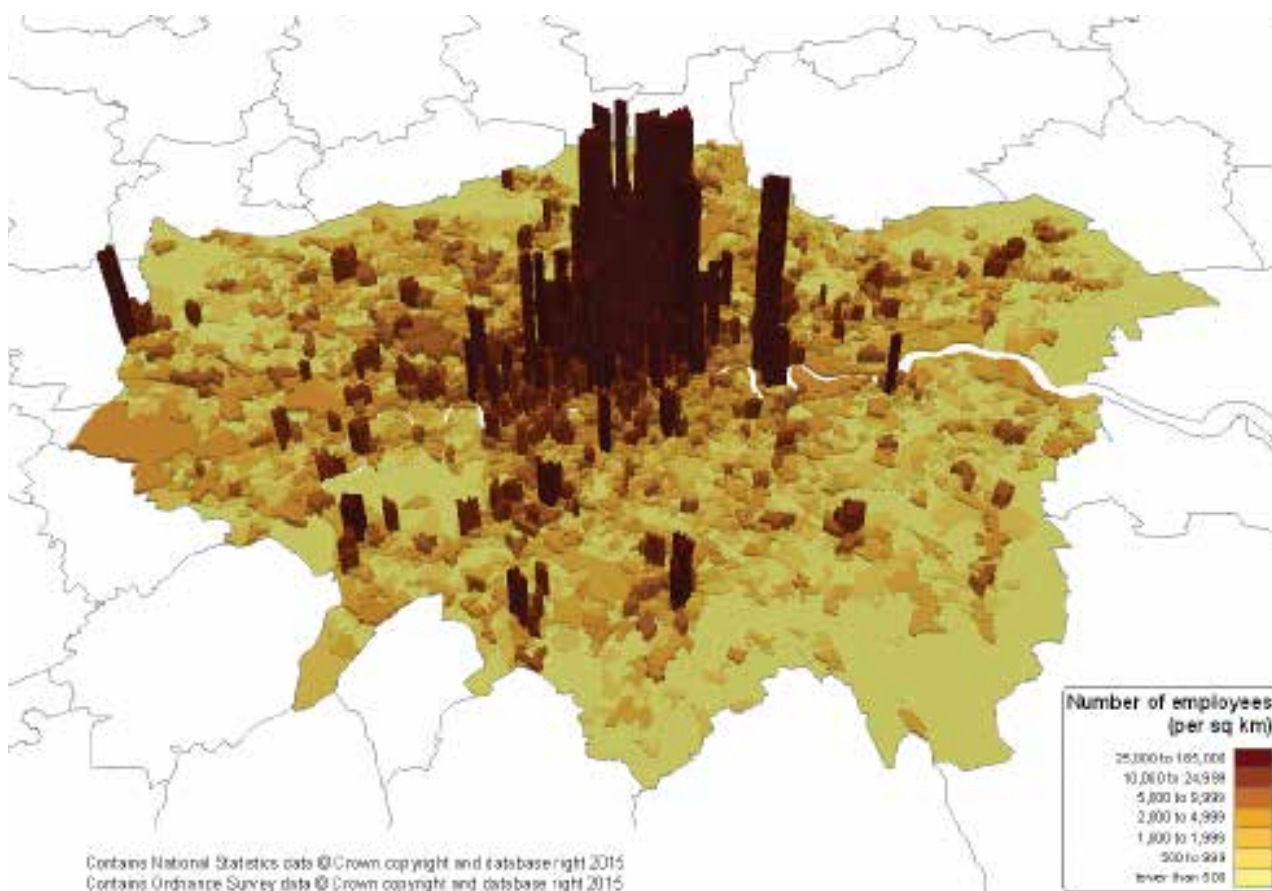
¹⁹ Volterra report: 'The Impact of the Night Time Economy', September 2014 <http://volterra.co.uk/impact-of-the-night-tube-on-londons-night-time-economy/>

Other cities such as New York, Chicago, Stockholm, Copenhagen, Berlin and Sydney all offer night time services to differing extents. However, as beneficial as a growing NTE is to London's economy, it is a sector of the economy that comes with considerable challenges if not managed properly.

More centres of activity

While recognising that housing needs must be addressed this should be done alongside and not at the expense of all else. Cities need more than housing to compete and succeed. And people don't want to live somewhere where it always necessitates a long journey to either work or to have a night out. Moreover, in a future capital of over ten million people, transport systems would cope better with more centres to which people will willingly travel, whether for work or leisure. As we can see in the map below, jobs are concentrated in the centre.

Map 1.1: Number of employees per square kilometre in 2014 in London



Source: BRES

Overreliance on central business districts suggests that London may wish to learn from other cities having multiple centres of business activity. Just as New York, which has different centres across the island of Manhattan, so too for London. Indeed, one of the key aims of Mayoral development corporations across London – such as in Old Oak Common and Queen Elizabeth Olympic Park now and previously in Canary Wharf – is to develop more centres of activity.

Just to illustrate how this might evolve, take the east where the Olympic site is being made a cultural centre. As London expands, particularly eastwards, a **new West End in the east would negate the need for people to think they have to travel to the centre of town.** This would have a positive benefit in terms of numbers travelling, pressure on existing transport, time and cost involved. It means there would be somewhere closer at hand for the millions living east and south. This could be with new theatres for the 21st century and state of the art technology. But it is not just about a new theatre district, it is about a modern day leisure and entertainment hub, with restaurants, cinemas, museums, bar, clubs and theme areas. Just look at how the Millennium Dome, once viewed as ripe for demolition has become a leisure hub, served by excellent transport links. The growing population of London would ensure that both the existing West End and new West End in the east would be commercially successful. Just think of how Westfield in White City has created its own demand. **The new river crossings, too, would open up this opportunity for a wider swathe of people.** The benefit in terms of jobs would be considerable. In terms of housing it would create another incentive for developers to want to build in the east of London, and an extra reason for people to want to live there.

Skills

One feature of this report is the likely increased competition between cities. London needs to remain competitive and needs to ensure it provides its people with sufficient skills that its pool of educated and skilled labour is sufficiently attractive for continued large scale investment, from overseas and at home.

We have already mentioned that London has the largest pool of skilled worked in any international city.²⁰ In addition, the high level of education attainment among its population as measured, suggests it has enough to retain a competitive edge.

Over the last decade or so, there has been further improvement in education standards to feed the skills needed across a broader labour force. The reinforcing attraction of London's strong technology base can also be added to this.

²⁰ Deloitte London Futures Report, 2014: <http://www2.deloitte.com/uk/en/pages/growth/articles/london-crowned-business-capital-of-europe.html>

It also leads into the debate about productivity, which is an increasingly important economic issue, as mentioned above. Here in the UK it is worth exploring whether the “Unipart Way” could be part of the solution.²¹ This is a focus on a comprehensive ecosystem which aims to continuously improve productivity in an organisation.

London clearly has achieved much success, but investing in its children and its people, and being open to new ideas that are already proven to work is part of the future of ensuring continued success, with higher productive and improving skills.

Air pollution

Levels of air pollution are, quite rightfully, an important variable when measuring the quality of life a city offers and therefore its international competitiveness. As with many cities in growing economies, London has an air pollution challenge.

In a study of 39 other world cities, including competitors such as Berlin, Hong Kong, Singapore and Barcelona, London was ranked 9th for the health impacts for air quality.²² Despite this, London’s air quality is seen as not good enough. In reaction to this London is now putting into effect measures that are widely seen as being both ambitious and comprehensive by global standards, to address the sources of all pollution emissions. These include many targeted measures on buildings and also improving the air quality of the taxi fleet and the cleanest large bus fleet in the world, and also this follows the world’s first Ultra-Low Emission Zone. As a result things are moving in the right direction and London is now compliant for the first time with EU laws for all pollutants apart from NO₂, with progress being made there too.

These areas are covered in more depth later in this report, including in the appendix, which shows how this has been factored into the capital’s infrastructure plan.

²¹ Unipart is one of Europe’s leading logistics, manufacturing and consulting groups and is based in Oxford. I visited Unipart, at the request of the Mayor, in 2014, meeting their Chairman John Neil, to see how their success could be incorporated into the economics of a city.

²² See, ‘Comparison of Air Quality in London with Other Cities Worldwide’, GLA, September 2014.

Connectivity

Connectivity is essential. One of the many important areas is digital. This is a vital part of a city's infrastructure. It is also an increasingly important competitive area in which to compare cities. The better the digital offering is, the more likely it is that economic performance will be higher. The fastest possible connectivity is essential in global finance. Fast connectivity is also essential if London is to establish itself as a tech centre of the world. There are likely to be many other fields and sectors where fast connectivity will make a difference. If London is to have multiple business hubs, avoiding an overreliance on the **central areas, then there is a need for high speed digital access across the whole of London.** Where more people are working remotely and many others are setting up their own companies, the best digital connectivity is vital. This will also support more entrepreneurs.

The best way to describe London's present position is a barbell. A barbell is a weight lifting bar that has the weights at either end, and no weights in the middle of the bar. London's current digital offering gives the impression of being either excellent or poor. In the City and other areas where fibre optics are available it is excellent.

It also needs to be seen in the context of the UK overall and hence in terms of national policy. The near monopoly position of BT and the constraint from EU state aid rules remain big hurdles. London has adopted best international practice already in the area of improved transparency. Learning from New York, Chicago and San Francisco, London is implementing a connectivity map, providing a city wide mapping service. One consequence of this is that this can turn into market opportunities for new providers to fill the gap.

Although the UK's digital performance is in line with EU averages – on costs, speed and availability – **it lags considerably behind many key Asian economies.** For example, South Korea, which is often cited as having the best, fastest and cheapest internet provision in the world. The capital Seoul has a 100mbit standard for urban homes, four times faster than the London average of 25 mb/s.²³ London, as an international city, needs to be setting its peer group high. **The need is for fast, affordable, ubiquitous connectivity.** Across London there needs to be an economically viable mix, such as fibre broadband, mobile and future methods of wireless internet delivery. Overall we need to upgrade the telecommunication infrastructure, have global hub technology and innovation, and evolve into a truly connected economy. This is a key aspect of staying globally competitive. Issues with infrastructure growth capacity under BT must be addressed alongside the long running issues of EU state aid rules on reclassifying internet provision as a utility. This will allow more effective local government intervention on roll out in zones 1 and 2. There is also a case for bringing planning applications for communications within the Mayor's overall strategic responsibility. All this can be part of more effective ways of installing connectivity.

²³ Akamai state of the internet report <https://www.akamai.com/us/en/our-thinking/state-of-the-internet-report/index.jsp>

Table 1.3: Public transport costs in various world citiesWorld cities²⁴

City	Single fare	Day Ticket	Monthly Ticket
London (Zones 1 & 2)	£2.30 - £2.90 (Underground PAYG fare)	£6.40 (PAYG daily cap)	£123.30
Amsterdam	£2.21 (One hour ticket)	£5.91	£70.17
Berlin (Zones A & B)	£2.05 (2 hr transfers)	£5.28	£61.50
Brussels	£1.58	£5.52	£43.76
Frankfurt (Zones 1 to 3)	£2.05	£5.20	£65.44 (cheaper for travel after 9am)
Helsinki	£1.97	£6.31	£36.66
Madrid (Zones A & B)	£1.58 (depending on mode and distance)	£6.62	£56.77
New York	£1.56 (Discounts on multiple purchases)	n/a (withdrawn)	£69.84
Paris (Zones 1 & 2)	£1.34	£5.36	£52.90
Prague (Zone P)	£0.91 (90 minute ticket - cheaper 30 min ticket)	£3.13	£15.65
Rome	£1.18 (100 min ticket)	£4.73	£27.60 (personal pass)
Stockholm (Zone A)	£3.22 (75min ticket)	£9.88	£67.84
Tokyo	£1.38 (12-19km Metro fare) (no transfers but reduction on through ticket)	£9.17	£99.72 (Cheaper point-to-point fares are available)

Sample currency conversion rates used: £1=\$1.60; £1=€1.27; £1=¥173.48

Source: TfL

²⁴ Amsterdam http://en.gvb.nl/service_en_verkoop/TicketsInfo/Pages/Adressen-en-openingstijden.aspxBerlin <https://shop.bvg.de/index.php/tickets>Brussels <http://www.stib.be/tickets.html?l=en>Frankfurt <http://www.vgf-ffm.de/en/fares-tickets-and-timetables/tickets/single-tickets/>Helsinki <http://www.hsl.fi/en/tickets-and-fares>Madrid http://www.ctm-madrid.es/red_transportes/tarifas/red_tarifas.jsp?CODPANTALLA=1&CODBOTON=203 (click Union flag for English version)New York <http://www.mta.info/metrocard/mcgtreng.htm>Paris http://www.ratp.fr/en/ratp/r_93779/tous-les-tarifs/Prague <http://www.dpp.cz/en/fares-in-prague/>Rome <http://www.atac.roma.it/page.asp?p=229&i=14>Stockholm <http://sl.se/en/fares--tickets/>Tokyo <http://www.tokyometro.jp/en/ticket/types/index.html>

The table on the previous page shows that London is a relatively expensive city for public transport. However it must be added that several of these cities receive very large public subsidies. Also none of them are engaged in an improvement and investment programme on the scale and scope currently happening in London. The fact that the quality of the transport system is seen as improving, particularly the underground, is a positive. An opportunity is to expand this to the wider commuting network. When one considers commuting time, the average for London is 74 minutes versus 67 minutes in Paris and 70 minutes in New York. In Madrid, similar in size to Spain's economy as London is to the UK, it is 80 minutes, Shanghai is 101 minutes.²⁵

While the diverse range of economic clusters in London should help future growth, **perhaps the most transformational aspect for London's economy are new transport links.** Canary Wharf, for instance, would not have succeeded without the Jubilee line being extended there. Likewise, Crossrail, the biggest construction project in Western Europe, will open up new areas because of rapid transport links. If Crossrail 2 were to be given the go ahead the economic payback would likely be quick. In turn, planned new river crossings will help distil more growth eastwards. Improved transport links to East Anglia or Stansted and Cambridge, as examples, will better link London with parts of its wider economic hinterland. There is the scope for improved links between urban and suburban services that serve London and surrounding counties.

The cost of travel is expensive. If people are to commute further then not only does travel need to be fast and efficient, not overcrowded, but it needs to be affordable.

Demand for travel will increase as the economy grows and as population increases. The advent of technology has not fundamentally altered this, but if digital coverage is improved then this could yet change. The dominance of the central business district, in terms of the West End, Square Mile and Canary Wharf, acts as the magnet that pulls travel into the centre. There may be scope for future growth areas to reflect current sizeable investment in new areas such as Croydon as well as improved future transport links.

When it comes to airports, it is clear that expanding Gatwick is not the answer. This would achieve little if anything, in terms of London's airport needs. It is also certainly not challenging Schiphol, in Amsterdam, which many domestic UK airports now use as their hub.

In turn, building a new hub airport in the east is not only visionary but would be the better longer term option, over Heathrow.

The issue of airport capacity is covered in more detail in chapter 7 and transport is covered in chapter 3.

²⁵ Presentation by Andy Rumfitt (Aecom) to the London Stansted Cambridge commission in Cambridge 21st January 2016

Housing implications

Two wrongs do not make a right. If housing is the problem the response has to be on addressing the supply side, to reduce the cost of housing, rather than on the demand side. The latter in many respects, by feeding housing demand, underpins prices.

When it comes to most goods people use, it is generally accepted that a lower rate of inflation or even deflation for certain items (not economy wide) with falling prices over time is a good thing. For instance, over time, the quality of products tends to improve for what is spent on them, so the old product if bought now would be cheaper in price. Or if the price of the new product has risen it is because it is infinitely better than what went before, whether a computer or a car. But when it comes to items that people want to invest in, rising prices are seen as a good sign. In recent years, monetary policy has been a vital and necessary shock absorber for the economy. It has also indirectly contributed to the inequality debate, through quantitative easing, contributing to rising asset price inflation.

What then about housing? If London house prices fell, would that be a good thing or a bad thing? Economists, let alone politicians, don't like answering this, as the answer is, it depends. But if the tendency is to say falling house prices are a bad thing, does it mean rising house prices are a good thing? Because most of the current behaviour in London would suggest rising prices are not. Of course, economists, or politicians, do not control the market and set the price. So policy cannot focus on price. If you try and control the price - say with rent controls, which are not a good idea - the unintended consequence is that you have no control over the quantity. In the case of rent controls it may also limit future supply. The key has to a focus on the supply and demand dynamics. That is a focus on ensuring sufficient supply is provided, and ensuring there are no distortions on the demand side, hence a focus in the report on foreign buying, an area of intense public debate.

Whilst much scrutiny is placed on historical supply of social housing it must be pointed out that London does perform well in terms of affordable housing provision. Some 24 per cent of properties in London fall under the umbrella of social housing. This is the same level as Paris and far ahead of the 19 per cent for Boston and 6 per cent for New York.²⁶

²⁶ GLA Intelligence statistics from: BHA NYCAA and ONS Census

The policy focus at a national level on the demand side has resulted in various schemes to make buying more affordable for first time buyers. Given the high cost of renting that is understandable. But at a time of high prices it must be hoped that the national policy of boosting demand triggers a significant increase in a supply side response. Boosting the housing supply is where the focus is in London, it is expected that during this Mayorality the plan to build 100,000 affordable homes will be met. But other recent changes to legislation, such as the national policy of allowing commercial properties to be converted to residential, may not be the best solution. It could lead to big changes in areas that contribute to London's overall appeal – as areas like Soho see more residential properties. When residential properties are so expensive relative to commercial this can only have one outcome. Small and medium sized firms need offices across the capital, which might be in danger of switching to residential use.

The issue with housing is a lack of supply. This is due to four decades of insufficient houses or flats being built. Restrictions on supply such as through the green belt, which limit London's ability to expand out, and restrictions on height, which has limited the ability to expand up, have exacerbated this problem. There has been some recent easing on the latter. In other large rich cities with less binding height restrictions – like New York – it has been shown that regulatory restrictions have less impact on prices.²⁷ Of course, sticking with current green belt policy, means we must focus on fully developing brown field sites across the city, which is a sensible policy for London, and that is where the initial focus should be.

Additionally, other challenges have emerged in recent years, particularly skill shortages in the construction industry. This highlights the importance of either an apprenticeship scheme or instead on the job training that leads to a permanent job. Another is the decline in the number of small developers, allowing the market to be dominated by big developers, with the risk that this may lead to land being held for too long before being developed.

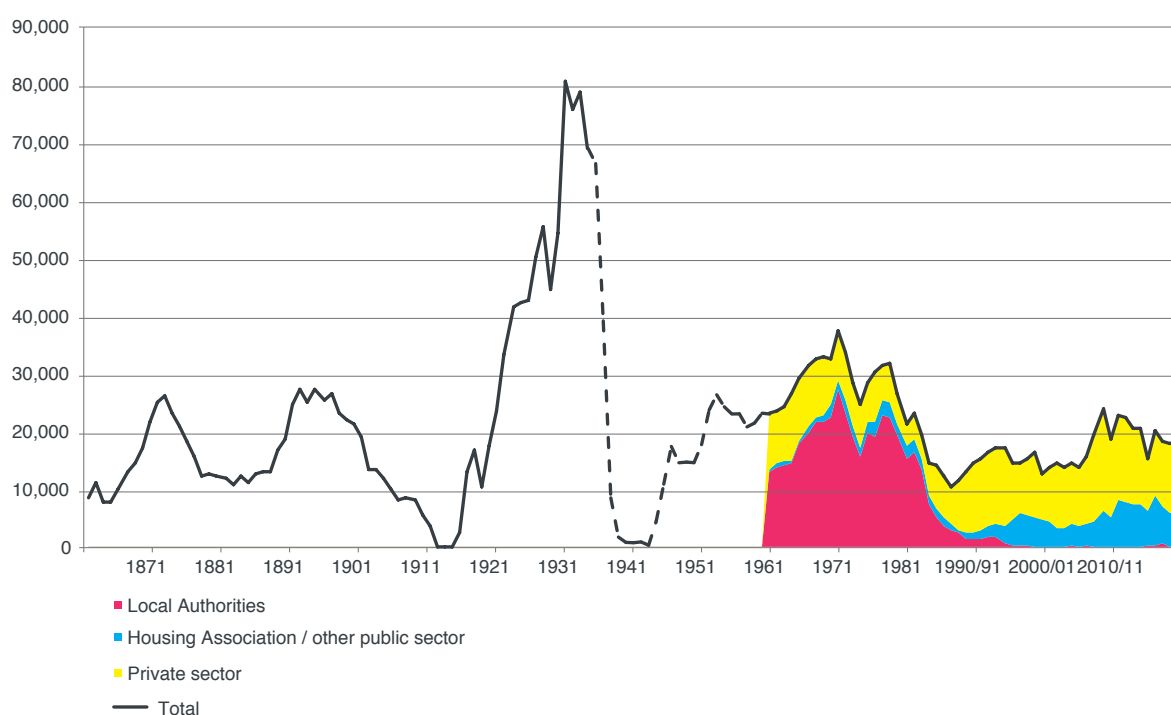
The factors boosting higher house prices include: before the financial crisis, a strong economy that saw real incomes rise; both before and since the crisis, an economy that has attracted international investment in real estate; a rising population; and a financial environment that still favours lending to real estate and for mortgages, despite recent tough lending conditions through the Mortgage Market Review; also a shortage of supply. High prices are also due to of a lack of building and this has not been helped by various constraints on building. Together these factors have in recent years created what can best be described as a lethal combination of cheap money, leverage and one way expectations, fuelling rising prices.

²⁷ Hilber, C. and Vermeulen, W. 'The impacts of restricting housing supply on house prices and affordability', November 2010)

The role of foreign buying can best summed up by the phrase that prime London real estate sees local supply and global demand. Chapter 5 of the report looks at this in some detail. Data on foreign buying is difficult to determine. Savills, the estate agent, say that international buying, including resales as well as new properties, has increased from 23 per cent in 2005 to 40 per cent in 2014. Knight Frank, another estate agent, calculates that overseas residents bought 28 per cent in 2013, although some of these may be people that already live in the UK. The Bank of England, meanwhile, says that foreign purchases were three per cent in 2014. That would be by volume, with by value, the figure being much higher. By value it would not be a surprise if that three per cent translated into high single digits, given the price difference between central and outer London.

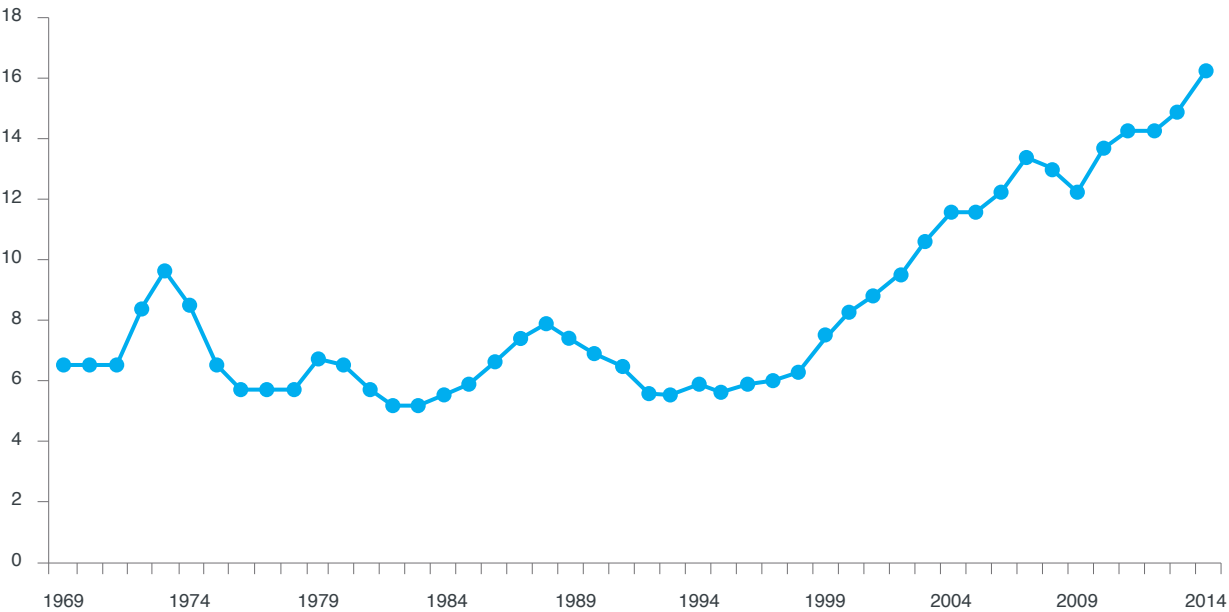
The top five cities in 2015 for real estate investment opportunities are New York, London, San Francisco, Tokyo and Madrid. In these cities, foreign buying is focused on high-end, new build properties.

Figure 1.9 Gross new homes built in Greater London, 1871 to 2014/15



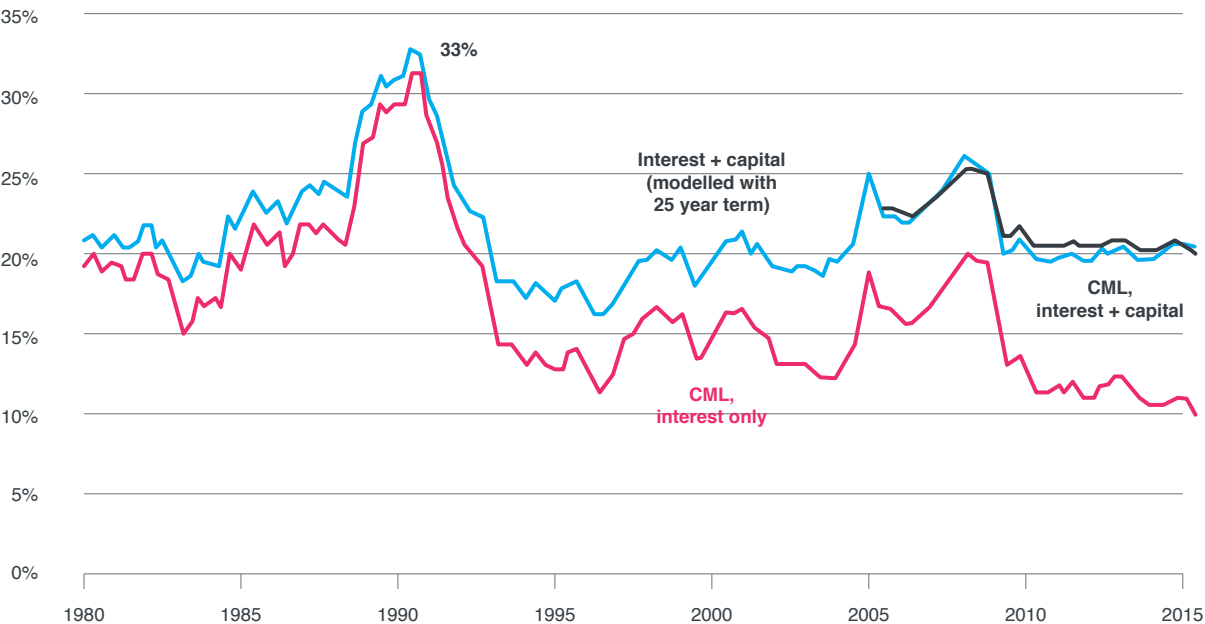
Source: GLA

Figure 1.10 House price to earnings ratio in London



Source: New Earnings Survey (NES) prior to 1997 and ASHE workplace-based earnings from 1997 to 2014. ONS simple average house prices, 1969-2014.

Figure 1.11 Mortgage affordability in London



Source: GLA calculations based on CML quarterly data

There are very few restrictions on foreign purchases of residential property in many developed countries. However, some have increased property taxes, or subject foreign investors to tax or capital gains from property sales. Although the report outlines the attempt by some countries to limit foreign buying, the reality is that it is not that common. Perhaps this is because foreign buying is more concentrated in global cities like London, and usually occurs in new builds in central areas. The question is whether deterring foreign buying would be an appropriate policy to follow in London, and even if it was, how successfully and legally it could be implemented?

Within the EU, the challenge is that the UK cannot discriminate against people in the EU based on their nationality. But it can be possible to discriminate based on residency, as the Edinburgh Solution of 1992 to the Danish opt out illustrated. The question then is whether a preference can be given to London residents over foreign buyers.

One concern might be that it is hard to see how this could be done without London losing its appeal as an international city in which firms should invest. This concern might be possible to overcome by exploring the residency test mentioned above or by ensuring any taxes on foreign investment are focused solely on property - while other national taxes remain internationally competitive.

The overall impact depends not only on who buys, but also on subsequent use. Contrary to popular perception there is little evidence that foreign bought properties are left empty, but the vast bulk are used to rent. A 2014 Jones Lang LaSalle survey suggesting this may be as high as 85 per cent among Asian buyers. This could have the impact of leading to different types of properties being built, such as what might be termed commoditised units in high rise blocks. Commoditised in the sense that they are easier to buy and sell for investors wishing to calculate the yield on their investments, with all costs such as security and utility bills, and within central zones. Moreover, as foreign investors are more likely to invest in new builds and may find it easier to raise finance to invest in off-plan developments, this could impact the type of buildings that developers are able to raise finance for. This would mean new builds and high rises become the norm.

Many international buyers - particularly from Asia - come from low tax regimes, versus UK buyers who live in a high tax country. Economically, if it is not possible via the EU to discriminate against EU residents, it is possible to do so against buyers from elsewhere. The question is how best to execute such a policy?

Perhaps it is not just taxation of foreign owners, but more general taxation of housing that needs to be addressed. An examination of the taxation of housing is needed. As the Mirrlees Review on tax system reform said, "The taxation of housing is a mess. Council tax is still based on 1991 valuations and is unnecessarily regressive. Stamp duty is among the most inefficient and damaging of all taxes. And renting is needlessly penalised by the tax system. Stamp duty should be abolished and council tax reformed so that payments are based on up to date values."²⁸

²⁸ IFS Mirrlees Review: Reforming the Tax System for the 21st Century, 2011 <http://www.ifs.org.uk/publications/mirrleesreview/>

In addition to the tax suggestions outlined by the Mirrlees Review, the idea of a land value tax should also be considered. A LVT is levied not on the value of a property but on the value of the land that the property sits on. It is used by some countries, including New Zealand, Estonia and Denmark as well as various states in Australia and the USA. Such a tax raises the cost of holding developable land when demand increases and may encourage more land release for development. The issue is whether it may deter rampant house price inflation, and also what impact it may have on land value use. It certainly makes more sense than an arbitrary mansion tax on the value of property. Particularly as a land value tax would not deter owners from investing to improve the quality of their property. Also it may encourage developers to act more quickly, but so too would easier planning reform.

The challenge with rising property prices is very evident for local residents. As Professor Miles pointed out at a recent City Hall seminar, attempts to raise the average deposit have compounded the problem. "Raising 5 per cent of a deposit (which was the norm) of a house costing four times income means you need to get 20 per cent of annual income to buy. Raising 20 per cent of a house (the new norm) of a house costing six times income means you need to get 120 per cent of annual income to buy." Meanwhile, at the same event, Professor Paul Cheshire uses his model that has accurately predicted previous movements to point out that the mean house price in London will rise from £534,128 in 2015 to £710,733 in 2020 and to £1,265,338 in 2030. Based on his figures, the mean house price to mean income ratio will increase from 11.5 now, already a high figure, to 12.9 in 2020 and 16.5 in 2030. Professor Cheshire has also highlighted that while prices rise, constraints on building mean that 64.9 per cent of the Greater London Authority area is 'green'. Naturally being a green city is part of London's attraction, this is about getting the balance right. The initial focus, as it is now, should be on the redevelopment of brown field sites.

Much of the focus is on the building of new homes. While this is an important part of the solution, in London attention must also be paid to unleashing the supply of second hand or existing homes. It has been reported that turnover in the second hand property market has halved across the UK over the last thirty years, and this is an issue for London if it continues.²⁹ One of the biggest deterrents to housing mobility is the high rate of stamp duty, which is effectively a tax on mobility. Rising house prices and ageing populations may also be other factors. The overall net effect of all these is that many properties where households have spare bedrooms are left under occupied, a situation that could be corrected if turnover increased and people downsized as well as upsized their properties.

This would suggest that owner occupation will fall further, and that the average age of first time buyers will rise. It also suggests that the combination of high prices and high rates will ensure London is an expensive place from which to conduct business.

²⁹ Economist report 'Building more houses only part of the remedy' <http://www.economist.com/news/britain/21688352-building-more-houses-only-part-remedy-high-prices-unlocking-britains-16m-empty>

Using the census as a guide, in 2011 the percentage of owner occupiers was 50 per cent, those in private rented 25 per cent and social rented 24 per cent of all households. A household is not the same as a family, and ranges from single people living alone, up to large families. The proportion in social rented was 18 per cent in 1961, and in recent decades was 29 per cent in 1991, some 26 per cent in 2001 and 24 in 2011. Private rented, meanwhile, was as high as 46 per cent in 1961. In recent decades, it was as low as 14 per cent in 1991 and 15 per cent in 2001, rising to 25 per cent in 2011. Owner-occupiers, in contrast, were 36 per cent in 1961, and soared in the 1980s boom to reach 57 per cent in 1991 and 59 per cent in 2001, dipping to 50 per cent by 2011.

London house prices have fallen twice in nominal terms in recent decades, in 1990-92 and 2008-09. In 1990-92 prices fell 7.1 per cent.³⁰

If the policy focus is on increasing housing supply, there are several ways this could happen. We could increase density or, increase distribution as London expands outwards, particularly to the east and perhaps in the future even into the green belt - or both. Regarding the green belt, building on it should not be seen as the solution to the issue as some economists may suggest and hence it must be considered carefully. One lesson of the euro crisis is that unrestrained property building can bring short term gains. However, it may leave a lasting negative legacy, as seen in Portugal, Ireland and Spain. Unrestrained house building, though, was the way the housing issue was addressed in the 1930s and in the 1960s in London. Relaxing planning controls is thus one part of the issue.

All of this suggests that the current policy in London of boosting supply is the correct one, with an emphasis on affordability, new developments linked to transport expansion, and brownfield sites. However, it's important to consider where future policy change may be needed. Otherwise housing and rental becomes exorbitant for locals and undermines London's international attraction as a place to do business. The areas of policy that need to be assessed fully include removing restrictions on supply points to: looking at the pros and cons of the green belt policy and also restrictions on height; building more supply in the areas people wish to live near the centre; encouraging London to expand outwards, and eastwards, helped by new transport links; and a huge housebuilding scheme building on recent success, taking into account the need for affordable housing. Above all, the impact of improved transport links, in connecting and transforming places, should be stressed.

³⁰ Joel Marsden, GLAEconomics Working Paper 72: House Prices in London – an economic analysis of London's Housing Market November 2015

The Opportunity

The opportunity is to lead the way as a global competitive city in the future and to achieve that with a high degree of social cohesion, so that success is shared by as many people as possible. If so London will retain and attract high skilled jobs and see the standard of living improve. Naturally, part of the future opportunity is addressing the challenges, as mentioned above, particularly regarding housing, being resilient in the face of likely economic shocks and realising opportunities.

While the current issue is the high cost of living **the opportunity is to increase the balance of economic growth, the level of income and the quality of living.** To truly lead the way, London needs to retain the factors that have contributed to its success to date and to make serious inroads into addressing its challenges.

Central to London's success has been its ability to adapt and change as well as play to its strengths. Previous work we have done with economists Professor Paul Ormerod and Bridget Rosewell of Volterra, a consultancy group, shows that **London's resilience in the wake of the financial crisis was because it was outward looking, open to innovation, encourages labour mobility and is strongly orientated towards services.** The specialisation in London highlighted in this report by research from the GLA economics team has reinforced not only the resilience of the capital but its potential to grow further and even faster. London is a source of the innovation that is essential to the future growth of the economy.

In 2014 London's economy was £364 billion and with a population of 8.54 million that was equivalent, to an income per person of £42,623. There are other metrics used that can give different figures so always such average figures must be taken in context. If London grew in line with the expected average growth rate of the national economy of 2.5% over the next twenty years, by 2036 the size of the economy would have grown to £596 billion. With a larger population income per head would then be £59,055 in today's prices. While population growth is an important influence on future growth, the important thing is that an economy needs inspiration as well as perspiration to grow. The perspiration being the population growth itself - the inspiration being all the other things that will allow economic growth to be in excess of that.

The likelihood is that London's growth rate will not only exceed its population growth rate but also the UK's overall economic growth rate as well. Indeed London is likely to help drive the national figure higher too. The Europe Report provided four different economic scenarios based on being in or out of the EU, and that work highlighted the importance of implementing effective domestic policies. In terms of this report, each 0.1 per cent addition to London's potential growth rate would - in today's prices so taking out the effects of potential inflation - boost average income per person in London by about £1,200 per year by 2036. That is a big opportunity, and the measures outlined above should help improve the quality of living while restraining the cost of living.

Conclusion

London is a world city and a global powerhouse. While that is widely accepted, the extent to which it has only truly become a world city in the last quarter century is perhaps often not appreciated fully. This is highlighted by the rapid increase in the population of people born overseas that live, work and play in London.

The future points to continued globalisation, increasing urbanisation. Across the globe, the interaction of technology and big data has already led to a focus on smart cities.

London needs to embrace such changes, both to provide the best standard of living for its people, and to stay competitive, in the face of increasing global competition.

The cities - and the national economies - that prosper in the future will be those that play to their strengths and embrace change. This means adopting policies at the local - and the national - level to provide an enabling environment in which people and businesses can prosper and grow. The opportunities and challenges facing London are global, regional, and local. This report outlines how successful London is on many global measures, but not all. The nature of economic-policy making can often be to focus on the problems and challenges. That is understandable, as the aim is to make things better, or to try and anticipate what needs to change. But sometimes this can come at the expense of failing to reflect enough on those things that are a success.

On a global scale, London is a remarkable success. The London vibe and the magnetic pull it has, attracting people, and being the home for so many businesses is a reflection of that.

At a regional level, there is no denying there are challenges too. London dominates the UK economy, accounting for about one-quarter of the UK economy. We have not focused on so called north-south issues in this report. It is however important that regional issues in the UK are addressed, whether it be the often voiced concerns about the proportion of funding London receives in the arts or other types of spending, while at the same time recognising the need for London, and other large UK cities to compete internationally. **There needs to be increased infrastructure spending, investment and continued innovation across the whole UK economy, including London.** There is also the other big regional issue that impacts London: the relationship with the EU. This is mentioned above.

Whether the UK is in or out of the EU is not the only issue for future success, but it depends heavily on the policies pursued whether we are in or out. **Not joining the euro had been one of the biggest policy success stories of recent times.** It is vital for London that if the UK remains in the EU that the future relationship between the eurozone and the non-eurozone economies is safeguarded, **in order to protect the City.**

This is one of the key aspects of the UK's planned EU reforms. Equally, if the UK voted to leave the EU then it is vital for the London economy that exit negotiations ensure access to the single market. We would also need to retain a good relationship between the UK and EU, and position the UK to be successful in a changing and growing global economy.

Is London in a league of its own? The tables, graphs and analysis in this report suggest that London can claim to be Europe's world city because of its business friendly approach. The main competitor is often seen as Paris, itself a great city, but not matching London in the 21st century. London's strong performance versus Paris also highlights the importance of national policies - in Paris's case, the drag from high taxes, euro membership and high unemployment. For London, future policy post the EU referendum will be important. **While Paris may be our closest competitor in Europe, New York is the biggest challenger to London in the western hemisphere.** There are also emerging megacities across Asia to consider as well as potential new competitors in Europe or North America. The latter shows the benefit of long term strategic thinking. For example building state of the art airports, as Singapore, Hong Kong and Shanghai have shown, and as indeed in Europe Amsterdam has done now.

London faces competition from New York, as the figures outlined above indicate. While London lags New York on productivity, it outperforms it on many other measures, such as the number of high skilled jobs. **London must continue to position itself in the changing global economy**, as 'the' city for business – both in terms of business 'in' and 'from'. As this report also demonstrates, London benefits from agglomeration effects, embracing globalisation and by having a great talent pool.

The policy takeaways from this report are both encouraging and challenging. They are encouraging in that they highlight much current success. Perhaps it is also encouraging that the challenges identified are ones that we already know about. But it does not make it any less challenging about the need to take action to address them. **The biggest issue is that London is an expensive place to live and from which to do business.** London needs housing. It needs to expand eastwards, possibly upwards and outwards. More clusters of economic activity, away from the central business district. London may be the UK's global powerhouse but it has to be one that the locals can continue to afford to live, work and play in as well. Much success has already been achieved in policy and the message is London needs to keep planning ahead and to keep thinking strategically.

Gerard Lyons

2. LONDON'S CURRENT ECONOMIC PERFORMANCE

2.1 Main Findings

- London's economy was worth around £364 billion in 2014, this is 6.8 per cent higher than in 2013 and more than double the value in nominal terms compared to 1997.
 - London's industrial structure has changed significantly in the last three decades with a marked decline in manufacturing, and a strong shift towards a service-led economy.
 - Financial and insurance activities accounted for just under a fifth of London's economy in 2014 with a total worth of £68.7 billion. In contrast, in terms of jobs the professional, scientific and technical sector is the largest provider of jobs.
 - London's specialises in financial and insurance services, whilst other sectors of concentration include: Information and communication, professional, scientific and technical services as well as real estate activities. The sectoral specialisation has in part also led industries to be concentrated in certain areas, in particular the centre of London.
 - London's employment composition is different to the UK'S. It also differs to that of other major cities like Manchester and other developed economies such as Germany's or Japan's. Manufacturing employment accounts for a considerably larger share in both Germany (around 20 per cent) and Japan (around 17 per cent) than in London or the UK (just over 2 per cent and 10 per cent respectively).
 - London's exports in 2013 totalled around £139.9 billion with service exports accounting for the majority of total exports (77 per cent). Furthermore, London exported over half of all UK service exports, whilst London's goods exports accounted for around 11 per cent of total UK goods exports in 2013.
-

- Exports of monetary finance services were the largest service industry segment in 2013 with exports in the sector more than doubling between 2003 and 2013. Growth in postal and courier services, architectural and telecommunication services was strong over the period.
- Around 44.6 per cent of UK's goods and service exports went to the EU in 2014, although this share has continued to decline from around 54.8 per cent in 1999. In contrast, the UK's key service export destinations in 2013 were Europe and North American economies, which accounted for almost three quarters of all UK exports of services.
- Relative to G7 countries, UK's service exports currently specialise in a number of industries: personal, cultural and recreational services; financial services; insurance and pension services; telecommunication, computer and information services; other business services.
- This chapter looks at London's economy over time, how the industrial structure has changed and how London's current specialisation is likely to position the capital in the global economy.

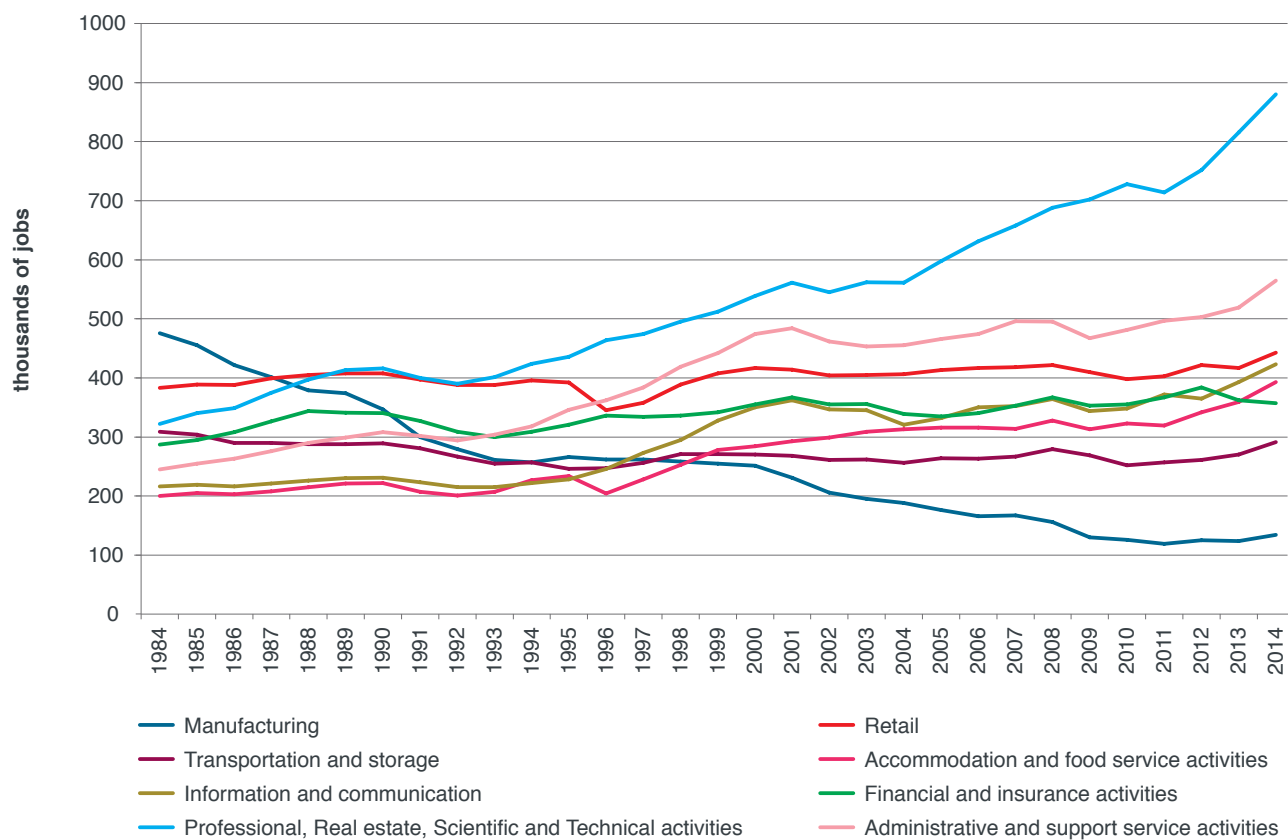
2.2 Structural change and industrial specialisation

London's economy has been shaped by globalisation. That is the increasingly connected and integrated nature of the international economy. This integrated international economy has, in large part, arisen through increases in trade over time.

Openness to trade, both exports and imports, strengthens productivity. This is the key to an economy's prosperity. One of the ways trade encourages greater productivity is through the exploitation of economies of scale. At its most basic, trade increases the size of markets to which producers can sell. As a result, globalisation has led to structural change in the UK economy, as well as across the world. It means that resources have moved from less productive to more productive uses.

The structure of London's economy has seen substantial changes in the last three decades with a marked decline in manufacturing, and a strong shift towards a service-led economy. Globalisation has been one of the key driving forces behind these changes in the industrial structure. The number of jobs in manufacturing has fallen from around 476,000 in 1984 to around 134,000 in 2014. At the same time, jobs in professional, real estate, scientific and technical activities have more than doubled to around 880,000 (see Figure 2.1).

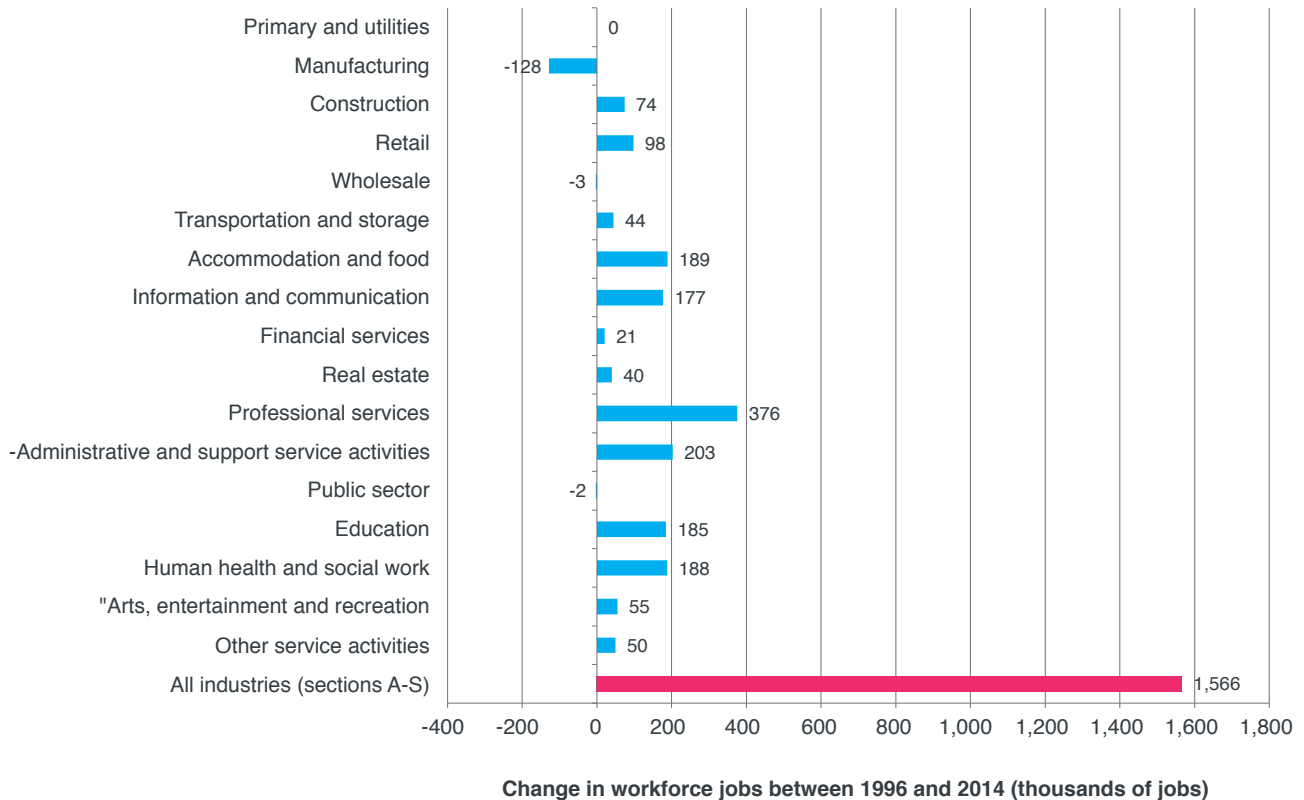
Figure 2.1: Employment in London by sector over time



Source: Workforce jobs, ONS and GLA Economics modelling

Figure 2.2 demonstrates the extent of the increase in jobs in professional, scientific and technical sectors between 1996 and 2014 with a 95 per cent rise in jobs (equivalent to around 376,000). This compares with manufacturing jobs almost halving from around 262,000 in 1996 to around 134,000 in 2014.

Figure 2.2: Changes in employment in London by sector between 1996 and 2014

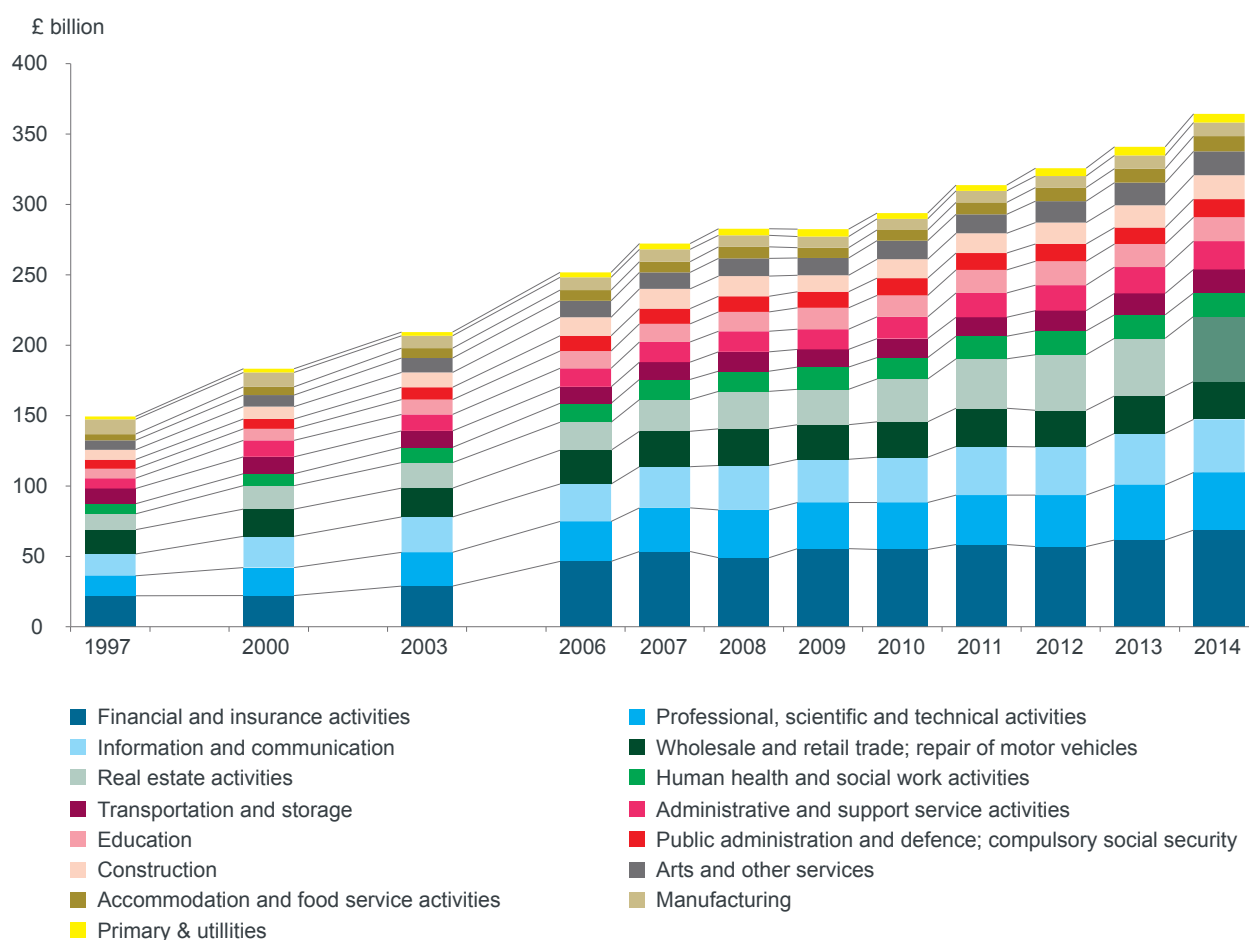


Source: Workforce jobs, ONS

As measured by Gross Value Added (GVA), a measure of the increase in the value of the economy due to the production of goods and services, London's economy was worth around £364 billion in 2014. This is 6.8 per cent higher than in 2012 and more than double the value in nominal terms compared to 1997. In 2014, London accounted for 22.6 per cent of the UK's total GVA.

Figure 2.3 demonstrates the importance of financial and insurance activities for London's economy with just under a fifth of London's GVA was generated by the industry in 2014, a total worth of £68.7 billion. The value of this industry has grown by 212 per cent since 1997, the third fastest rate for any industry in London. The only industry to surpass this rate of growth was electricity, gas, steam and air-conditioning supply and real estate activities. These have grown respectively by 356 per cent and 305 per cent since 1997, and accounted for 1.1 per cent and 12.6 per cent of London's GVA in 2014. In 2014, just over half of the UK's GVA in the financial and insurance industry was generated in London (up from 43 per cent in 1997). Indeed, London's financial and insurance industry made up 4.3 per cent of the UK's total GVA in 2014. However professional, scientific and technical activities; and information and communication industries also play an important role in London's GVA generation. In 2014, these two industries combined accounted for 21.5 per cent of London's GVA generation (up slightly from 19.8 per cent in 1997). Further, London's professional, scientific and technical activities; and information and communication account for 36 per cent of the UK's GVA in both industries respectively. Administrative and support service activities account for 26 per cent of the sector's GVA in the UK.

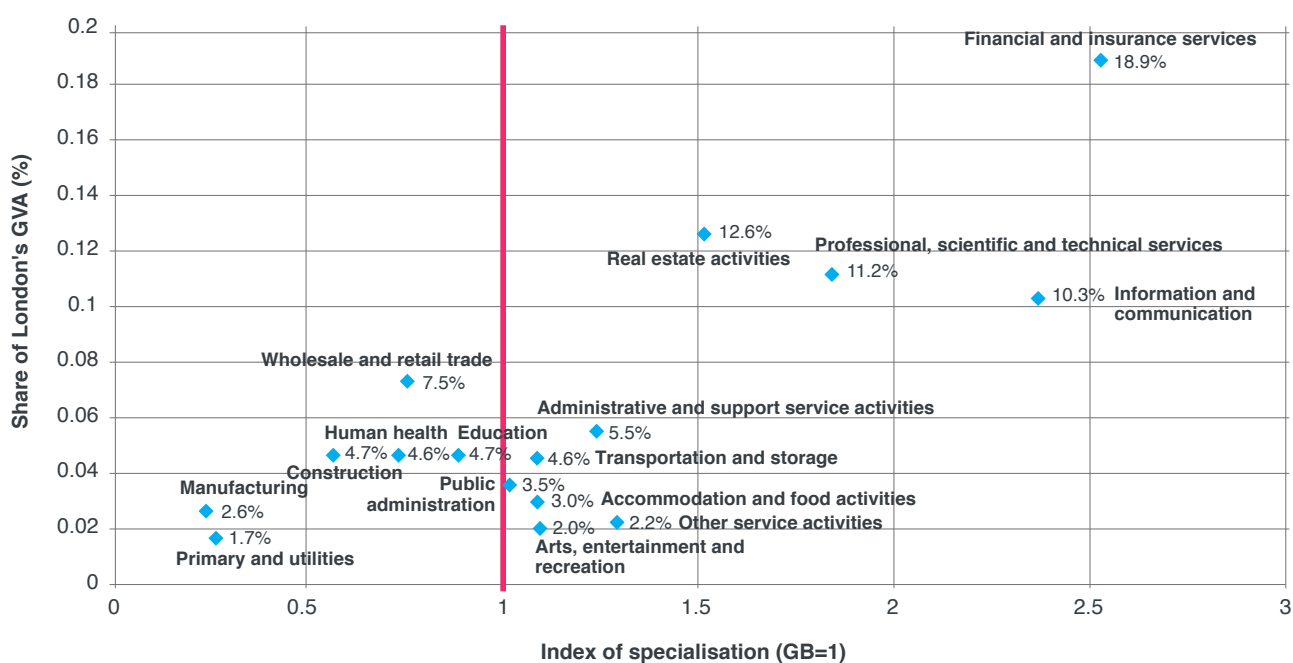
Figure 2.3: Headline GVA in London by industry, 1997-2014, current prices



Source: Regional Accounts, ONS

Figure 2.4 further demonstrates London's current industrial structure and areas that London specialises in. These are the areas that London has had a relative comparative advantage in compared to its trading partners - as represented by employee jobs. If London reflected the same employee proportions as Great Britain³¹ as a whole then all the sectors shown would be located on the vertical red line in Figure 2.4. The figure demonstrates that London's economic activity is in the main concentrated in financial and insurance services, whilst other sectors of concentration include information and communication, professional, scientific and technical services as well as real estate activities.

Figure 2.4: London's index of specialisation and share of London's total output, 2014



Source: Business Register and Employment Survey (BRES) - ONS, UK Regional Accounts – ONS

The broad industry categories provide only a partial picture of London's specialisation and the results of examination of more detailed industry level data are shown in Table 2.1. More detailed data shows that London specialises in areas such as fund management activities, television programming and broadcasting activities and media activities for example.

³¹ Index of specialisation calculations are based on Business Register and Employment Survey (BRES) data that include country-level data on employee jobs for Great Britain, England, Scotland and Wales. Index of specialisation is calculated as follows: (sector employee jobs in London / all employee jobs in London) / (sector employee jobs in Rest of GB / all employee jobs in Rest of GB). For consistency, both GVA and employee jobs numbers refer to 2012.

Table 2.1: London's Industrial structure and main specialisation, 2014

Sector	London employee jobs	Share of total London employee jobs	London share of rest of GB employee jobs	Index of specialisation
Total London	4,732,800	100.0%	16.9%	1.0
K : Financial and insurance activities	351,900	7.4%	34.1%	2.5
of which				
6630 : Fund management activities	28,200	0.6%	71.0%	12.0
6612 : Security and commodity contracts brokerage	25,500	0.5%	65.1%	9.1
6430 : Trusts, funds and similar financial entities	6,900	0.1%	54.3%	5.8
6419 : Other monetary intermediation	140,300	3.0%	35.0%	2.6
6619 : Other activities auxiliary to financial services, except insurance and pension funding	46,000	1.0%	34.0%	2.5
6499 : Other financial service activities, except insurance and pension funding, n.e.c.	13,200	0.3%	31.0%	2.2
6629 : Other activities auxiliary to insurance and pension funding	24,700	0.5%	30.3%	2.1
6622 : Activities of insurance agents and brokers	32,500	0.7%	29.8%	2.1
6512 : Non-life insurance	13,400	0.3%	19.9%	1.2
J : Information and communication	372,800	7.9%	32.6%	2.4
of which				
5913 : Motion picture, video and television programme distribution activities	4,500	0.1%	83.3%	24.5

6391 : News agency activities	7,700	0.2%	81.1%	21.0
6020 : Television programming and broadcasting activities	22,100	0.5%	79.8%	19.4
5912 : Motion picture, video and television programme post-production activities	8,600	0.2%	76.1%	15.6
5920 : Sound recording and music publishing activities	5,700	0.1%	70.4%	11.7
5911 : Motion picture, video and television programme production activities	35,900	0.8%	63.9%	8.7
6010 : Radio broadcasting	7,300	0.2%	61.9%	8.0
6312 : Web portals	4,400	0.1%	59.5%	7.2
5814 : Publishing of journals and periodicals	19,800	0.4%	50.5%	5.0
5811 : Book publishing	11,000	0.2%	45.1%	4.0
5813 : Publishing of newspapers	13,300	0.3%	33.9%	2.5
5819 : Other publishing activities	5,500	0.1%	32.7%	2.4
6120 : Wireless telecommunications activities	5,100	0.1%	31.5%	2.3
6201 : Computer programming activities	39,900	0.8%	27.0%	1.8
6202 : Computer consultancy activities	88,500	1.9%	26.6%	1.8
6209 : Other information technology and computer service activities	31,900	0.7%	26.1%	1.7
6190 : Other telecommunications activities	37,500	0.8%	22.5%	1.4
6311 : Data processing, hosting and related activities	9,600	0.2%	22.5%	1.4

M : Professional, scientific and technical activities	613,900	13.0%	27.3%	1.8
of which				
7021 : Public relations and communication activities	11,500	0.2%	58.4%	6.9
7312 : Media representation	7,500	0.2%	51.0%	5.1
7311 : Advertising agencies	42,400	0.9%	45.7%	4.1
7320 : Market research and public opinion polling	19,800	0.4%	40.9%	3.4
7410 : Specialised design activities	17,300	0.4%	36.2%	2.8
7111 : Architectural activities	23,500	0.5%	33.3%	2.5
6910 : Legal activities	86,400	1.8%	32.5%	2.4
7420 : Photographic activities	5,600	0.1%	32.2%	2.3
7022 : Business and other management consultancy activities	135,100	2.9%	30.9%	2.2
6920 : Accounting, bookkeeping and auditing activities; tax consultancy	87,000	1.8%	29.7%	2.1
7010 : Activities of head offices	75,100	1.6%	29.0%	2.0
7490 : Other professional, scientific and technical activities n.e.c.	24,600	0.5%	24.9%	1.6
L : Real estate activities	107,600	2.3%	23.7%	1.5
of which				
6832 : Management of real estate on a fee or contract basis	28,200	0.6%	31.4%	2.2
6831 : Real estate agencies	38,300	0.8%	26.6%	1.8
6820 : Renting and operating of own or leased real estate	39,100	0.8%	18.4%	1.1

S : Other service activities	114,600	2.4%	20.9%	1.3
of which				
9411 : Activities of business and employers membership organisations	7,800	0.2%	55.3%	6.1
9412 : Activities of professional membership organisations	16,100	0.3%	54.4%	5.9
9491 : Activities of religious organisations	16,300	0.3%	26.2%	1.7
9601 : Washing and (dry-)cleaning of textile and fur products	6,000	0.1%	21.1%	1.3
9499 : Activities of other membership organisations n.e.c.	20,400	0.4%	17.9%	1.1
9602 : Hairdressing and other beauty treatment	19,900	0.4%	17.0%	1.0

Source: BRES. Note: London data are based on 4-digit level data.

The creative industries are a particular area where London has a significant industrial specialisation (as shown by some sub-sectors in the information and communication sector having indices of specialisation in excess of 20). The creative industries are an important sector for London, with an estimated GVA of £34.6 billion in 2012. This accounts for almost half (47.6 per cent) of the value of the creative industries for the UK as a whole. On its own, the creative industries accounted for 10.7 per cent of London's total GVA in that year.³²

³² Togni, L., October 2015, 'Working Paper 70: The creative industries in London'. GLA Economics.

Within creative industries groups, London accounts for a significant proportion of total UK creative industry GVA in the film, TV, video, radio and photography group (66.4 per cent of total UK GVA); and in the music, performing and visual arts group (75.8 per cent) as shown in Table 2.2.

Table 2.2: Total GVA for the creative industries groups in London and in the UK, 2012

Creative Industries Group	London Total GVA (£m)	UK Total GVA (£m)	London Proportion
Advertising and marketing	3,631	6,628	54.8%
Architecture	1,349	3,302	40.9%
Crafts	159	325	48.9%
Design: product, graphic and fashion design	947	2,271	41.7%
Film, TV, video, radio and photography	8,633	13,011	66.4%
IT, software and computer services	10,777	30,195	35.7%
Publishing	5,341	10,616	50.3%
Museums, galleries and libraries	601	2,214	27.1%
Music, performing and visual arts	3,163	4,175	75.8%
TOTAL	34,601	72,737	47.6%

Source: GLA Economics calculations

Between 2009 and 2012, the GVA of the creative industries in London increased by 16.4 per cent, compared to 15.4 per cent for the UK as a whole. The highest growth took place between 2010 and 2011 (a 7.8 per cent increase).

In addition to being an important sector in terms of GVA, employment in the creative industries (and the wider creative economy) are significant. The creative economy consists of three main groups, the first two of which make up the creative industries:³³

- Where the job and industry are both creative;
- Industry is creative but job is not creative (or unknown);
- Job is creative but industry is not creative (or unknown).

In 2014, it is estimated that there were 795,800 jobs in the creative economy in London, comprising 16.3 per cent of total jobs in London. Specifically within the creative industries, there were 575,300 jobs (or 11.8 per cent of all jobs in London); as shown in Table 2.3.

³³ Ibid.

Table 2.3: Jobs in the creative industries and in the creative economy in London and in the rest of the UK, 2011-2014

	2011	2012	2013	2014	2011	2012	2013	2014
London	(number of jobs)				(%)			
Job and industry are both creative	296,200	283,800	290,700	331,700	6.7	6.2	6.2	6.8
Industry creative but job not creative or unknown	201,200	229,600	238,900	243,700	4.5	5.0	5.1	5.0
Job creative but industry not creative or unknown	192,100	197,300	221,100	220,500	4.3	4.3	4.7	4.5
Industry and job not creative or unknown	3,758,600	3,856,800	3,930,000	4,076,700	84.5	84.4	84.0	83.7
Sub-total: jobs in creative industries	497,400	513,400	529,600	575,300	11.2	11.2	11.3	11.8
Sub-total: jobs in the creative economy	689,500	710,700	750,600	795,800	15.5	15.6	16.0	16.3
Total	4,448,100	4,567,500	4,680,700	4,872,500				
Rest of the UK	(number of jobs)				(%)			
Job and industry are both creative	527,900	606,200	599,300	637,600	2.1	2.4	2.3	2.4
Industry creative but job not creative or unknown	536,000	571,600	584,100	595,000	2.1	2.2	2.2	2.2
Job creative but industry not creative or unknown	668,200	669,300	688,400	725,200	2.6	2.6	2.6	2.7
Industry and job not creative or unknown	23,943,600	23,919,300	24,205,900	24,577,000	93.3	92.8	92.8	92.6
Sub-total: creative industries	1,063,900	1,177,700	1,183,400	1,232,700	4.1	4.6	4.5	4.6
Sub-total: creative economy	1,732,100	1,847,000	1,871,800	1,957,900	6.7	7.2	7.2	7.4
Total	25,675,600	25,766,300	26,077,700	26,534,900				

Sources: ONS Annual Population Survey, 2011 to 2014; figures rounded to the nearest hundred.

In addition to being an industry comprising a significant proportion of total jobs in the capital, the creative industries are also highly productive. It is estimated that the average GVA per workforce job in the creative industries was £71,100; which compares to an all sector average of £56,700 in London (therefore 25 per cent higher), and also is considerably more productive than the creative industries in the UK as a whole (£49,800; or 42.9 per cent higher). The estimates by creative industry group are shown in Table 2.4.

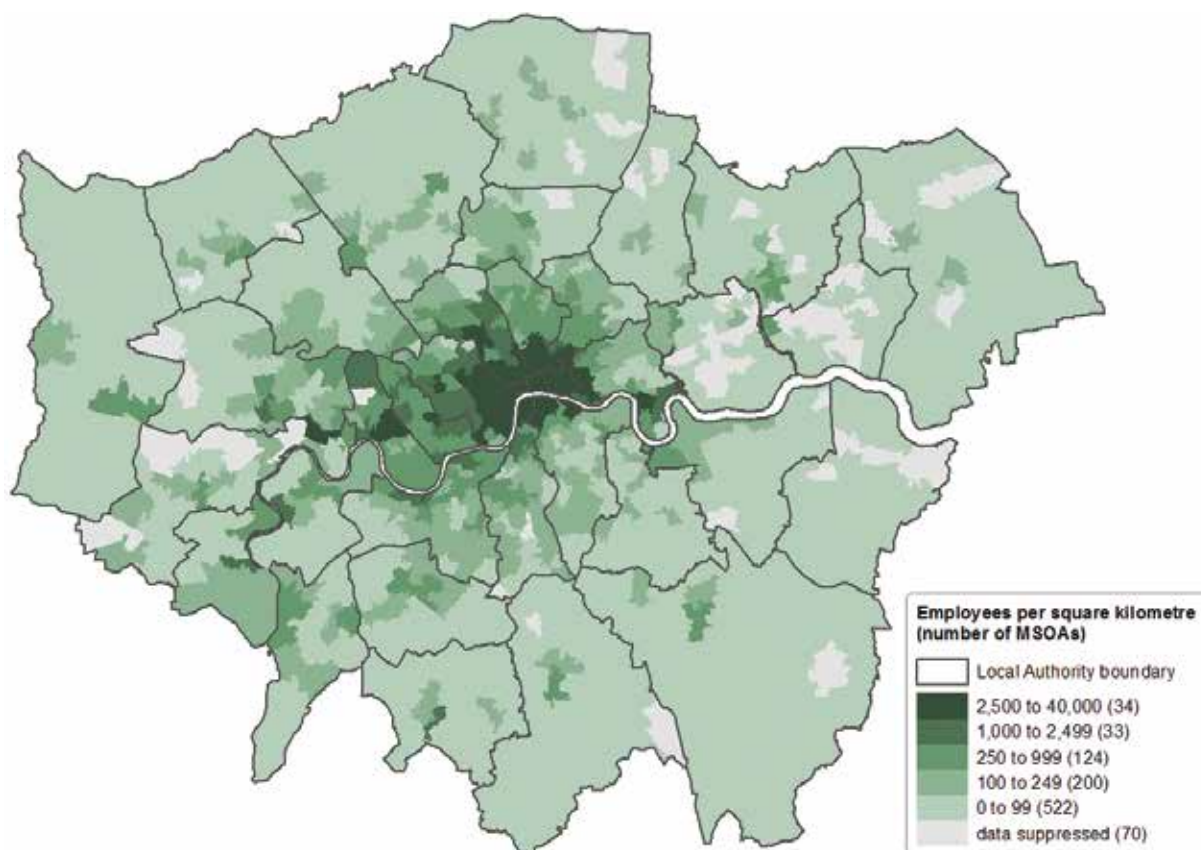
Table 2.4: GVA per workforce job for the creative industries groups in London and in the UK, 2012

Creative Industries Group	London (£k)	UK (£k)	Percentage Difference
Advertising and Marketing	54.8	43.0	27.5%
Architecture	49.9	46.7	6.9%
Crafts	61.8	41.3	49.7%
Design: product, graphic and fashion design	42.4	29.8	42.4%
Film, TV, video, radio and photography	84.4	67.0	26.0%
IT, software and computer services	93.9	62.0	51.4%
Publishing	89.7	57.9	54.8%
Museums, galleries and libraries	36.8	30.1	21.9%
Music, performing and visual arts	42.2	19.5	115.9%
TOTAL	71.1	49.8	42.9%

Source: GLA Economics calculations

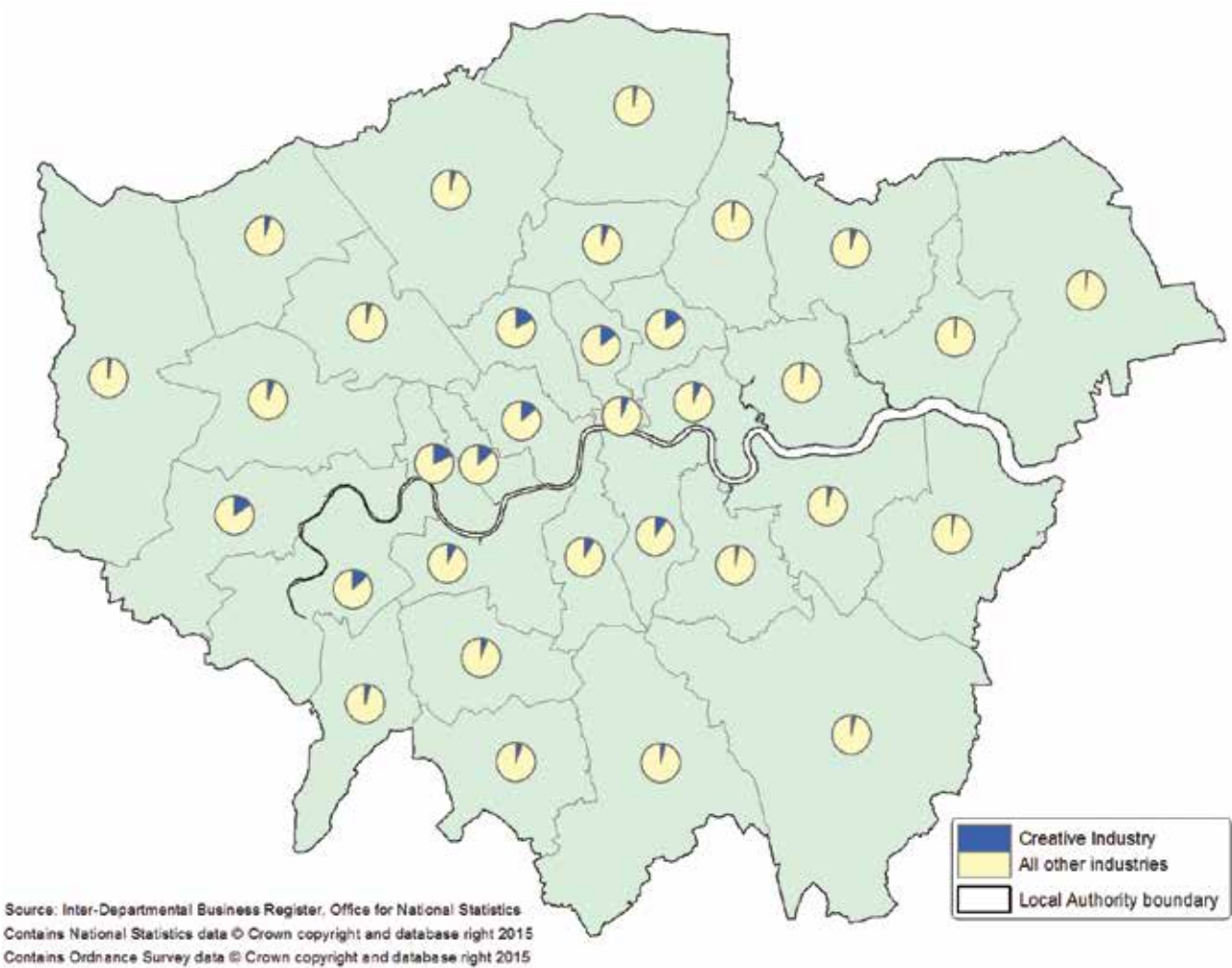
Data from the Inter-Departmental Business Register (IDBR) provide an insight into the spatial nature of employee jobs and businesses in the creative industries. The following maps show significant concentrations of employee jobs within Central London, and stretching towards the West of London.

Map 2.1: Number of employees in the creative industries in London, MSOAs (per sq. km), 2014



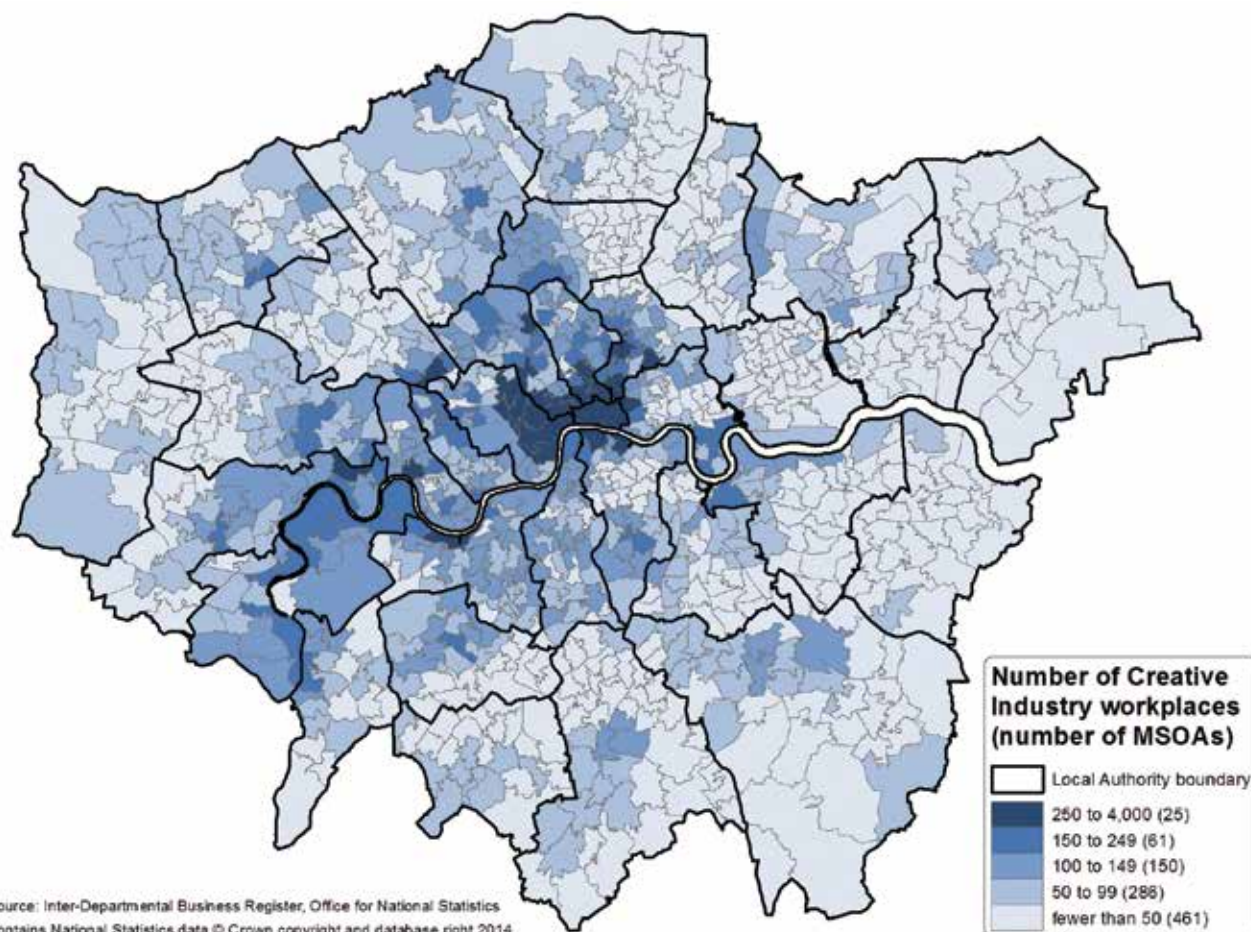
Note: MSOA denotes Middle-layer Super Output Areas, a geography used for the analysis of small area statistics
 Source: Inter-Departmental Business Register, Office for National Statistics
 Contains National Statistics data © Crown copyright and database right 2015
 Contains Ordnance Survey data © Crown copyright and database right 2015. Ordnance Survey 100032216

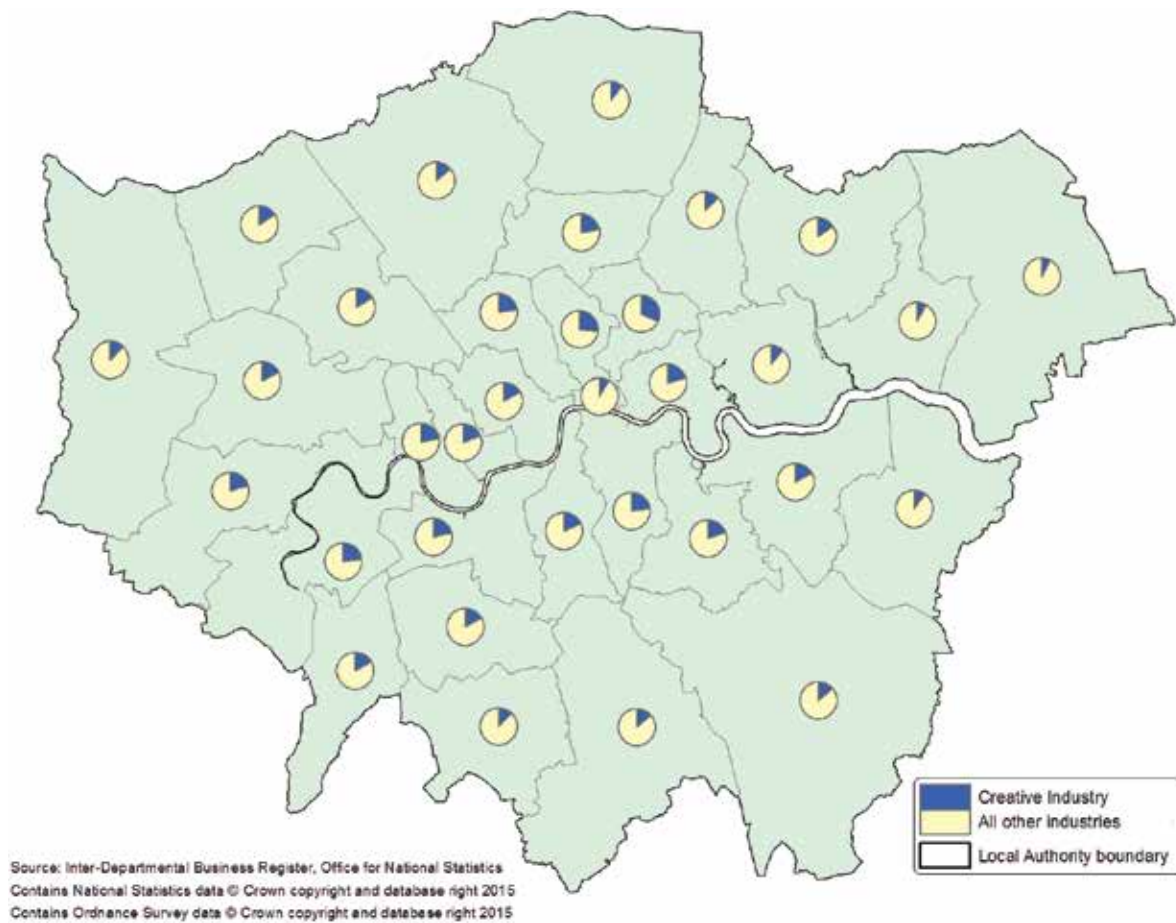
Map 2.2: Proportion of creative industries employees in London, by borough, 2014



There are also significant concentrations of workplaces in the creative industries in London, concentrated within the centre and stretching to the West, as shown in the following maps:

Map 2.3: Number of workplaces in the creative industries in London, MSOAs (per sq. km), 2014



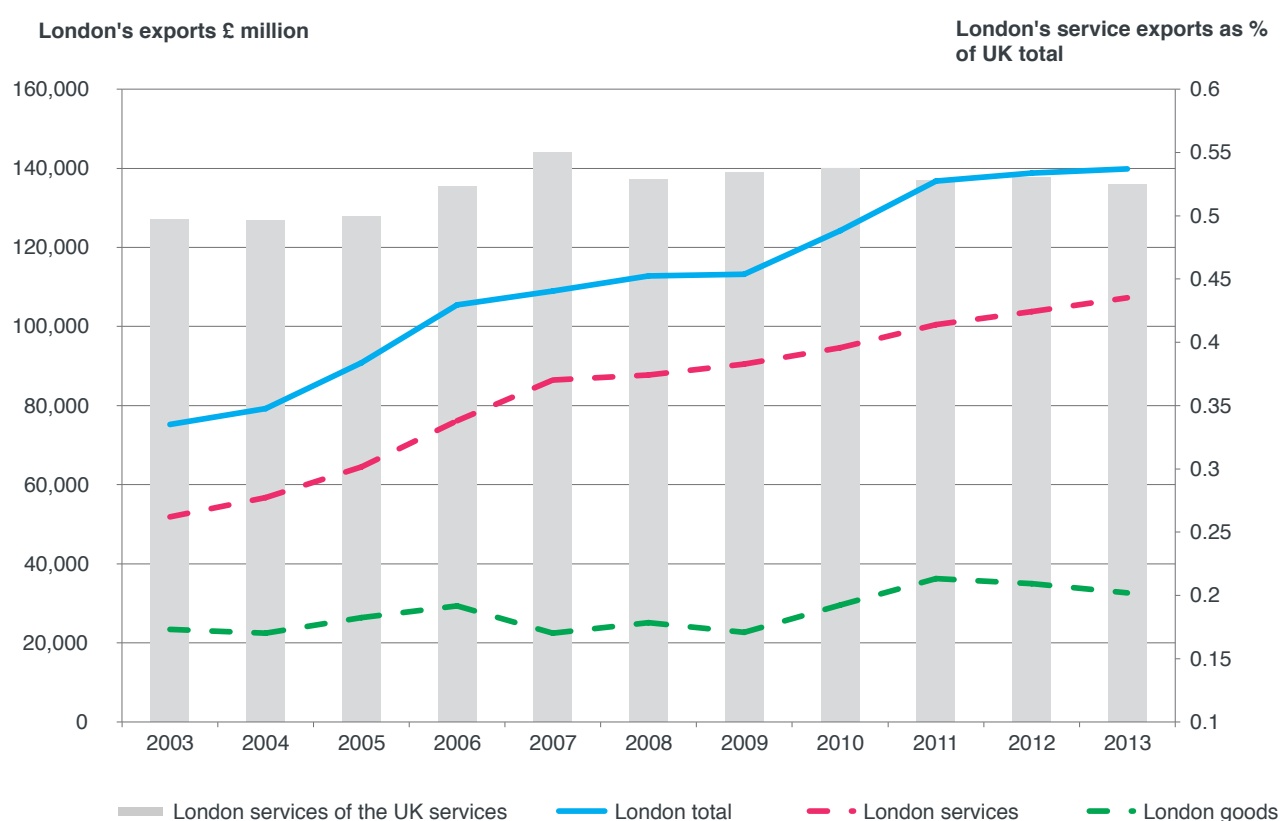
Map 2.4: Proportion of creative industries workplaces in London, LA level, 2014

As a result of high levels and concentration of employment in the creative industries has significant impacts on the wider economy. These include potential multiplier effects as the creative industries have links to other sectors of the economy via supply chains. The creative industries may also increase productivity in other sectors, as businesses share ideas and knowledge. Finally, the creative industries are closely linked to tourism, for example through music and performing arts. GLA Economics estimated that in 2013, cultural tourism supported 80,000 jobs and contributed £3.2bn of GVA to London, just under a third of the total contribution from the entire tourism sector.³⁴

³⁴ Smith, B., March 2015, 'Current Issues Note 44: The Value of Cultural Tourism to London'. GLA Economics.

Unsurprisingly, many of London's areas of specialisation are in the sectors where the UK has a relative comparative advantage over other G7 countries. This implies that London has strong international trading links. This openness and importance of global trade is indeed demonstrated by Figure 2.5. GLA Economics estimates³⁵ suggest that London's total exports in 2013 totalled around £139.9 billion with service exports accounting for the majority of total exports (77 per cent), worth around £107.3 billion. This result implies that in 2013 London exported over half of all UK service exports (this compares to around 50 per cent in 2003). In contrast, London's goods exports accounted for around 11 per cent of total UK goods exports in 2013.

Figure 2.5: London's exports over time

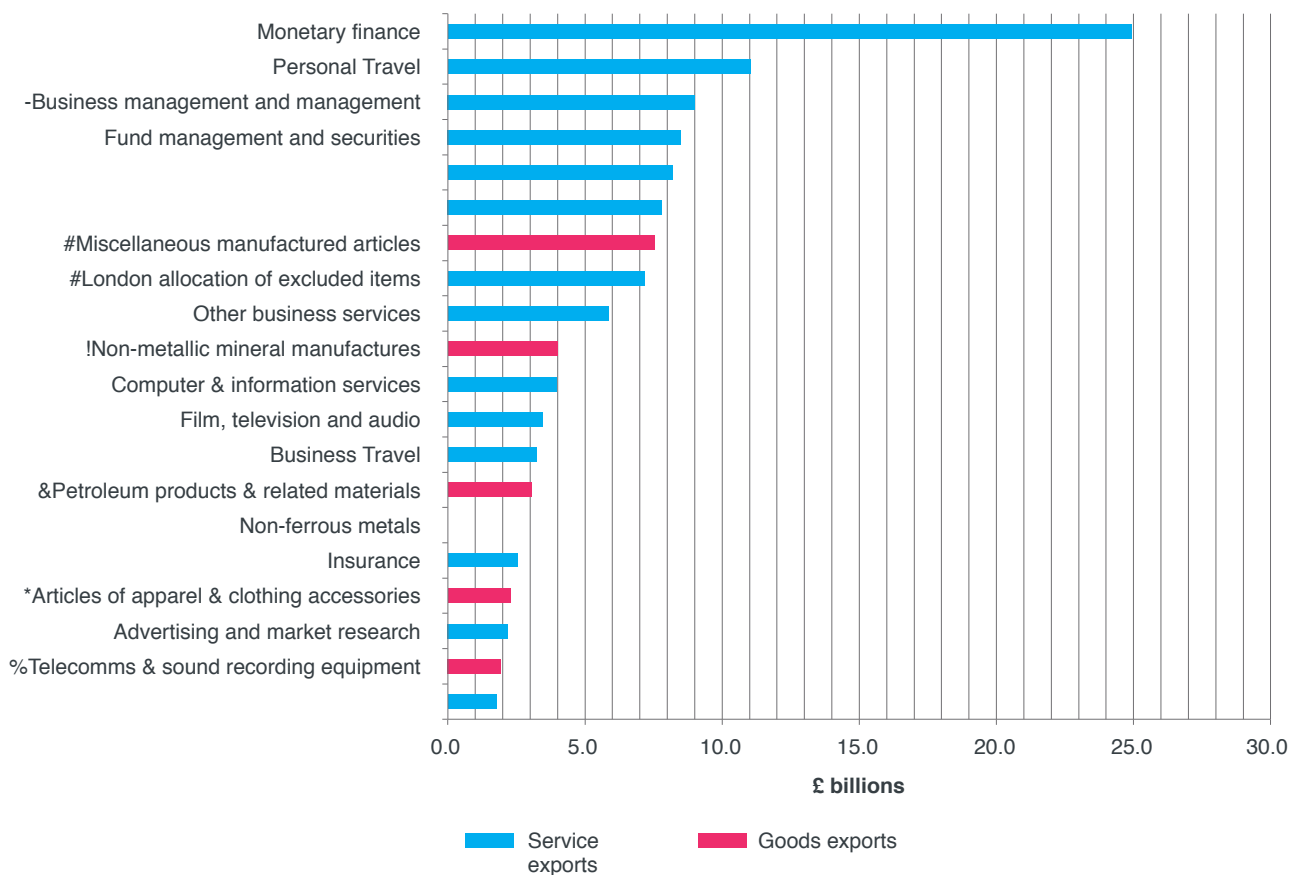


Source: Pink Book for UK level service exports data, ONS and GLA Economics modelling

³⁵ Currently no official regional service exports statistics exist and for this reason GLA Economics has produced estimates for London.

Figure 2.6 provides further details on London's top 20 exports of goods and services and highlights the importance of service exports with 14 out of 20 key exports consisting of services. London's key exports include monetary finance and personal travel services as well as business management and management consulting services.

Figure 2.6: Estimated values of London's top 20 exports of goods and services in 2013³⁶

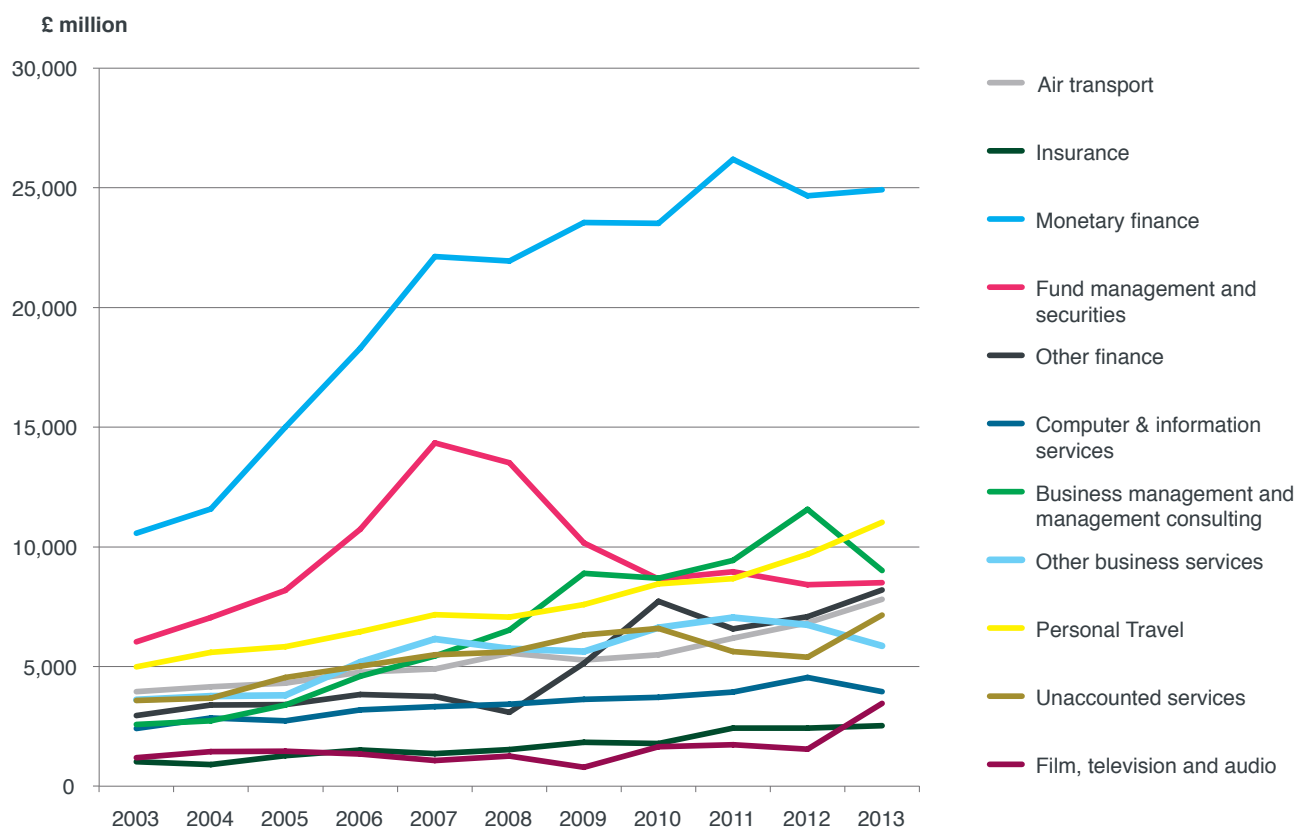


Source: Pink Book for UK level service exports data, ONS, International Passenger Survey, ONS and GLA Economics modelling

³⁶ 'Unaccounted services' refer to service exports that have not been regionalised using relative productivity analysis previously produced by GLA Economics. Instead, the 'unaccounted services' exports were apportioned to the London level using an average share across regionalised exports. These 'unaccounted services' exports include: Manufacturing on physical inputs owned by others, maintenance and repair services., construction, intellectual property, recruitment of business management and management consulting, waste treatment and de-pollution, agriculture and mining services, and other business services exported by UK banks.

Figure 2.7 provides a more detailed picture how some of these service export categories displayed in Figure 2.6 have changed over time. Exports of monetary finance services were the largest service industry segment in 2013. Exports in the sector more than doubled between 2003 and 2013, although growth slowed to 1% in 2013. Some of the strong growth sectors between 2003 and 2013 include postal and courier services, architectural and telecommunication services. Fund management and securities exports saw a substantial increase in exports between 2003 and 2007. However, this fell sharply following the financial crisis. In 2013 exports were around 41 per cent lower than pre-crisis. Business management and management consultancy service exports grew strongly after 2010 but fell away sharply in 2013, by around 22 per cent in 2013.

Figure 2.7: Estimate of London's top ten exports of services in 2013 over time (£m)



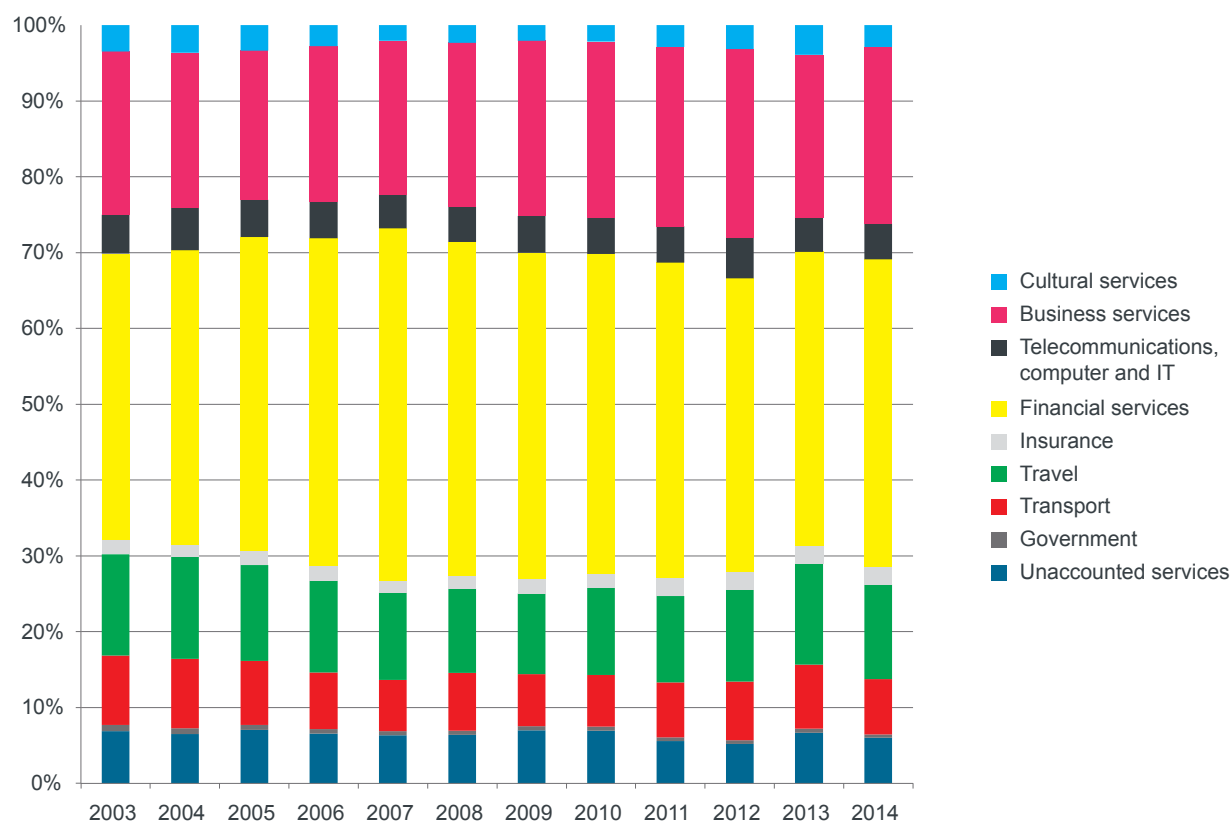
Source: Pink Book for UK level service exports data, ONS and GLA Economics modelling

Looking at the estimated shares of London's service exports by broad industry category shows that financial services accounted for over a third of the capital's service exports in 2014. Whilst this share has fluctuated over the years, the broader picture hasn't changed much (Figure 2.8). Business services are the second largest component accounting for around 23 per cent of all service exports in 2014.

A recent publication 'EY Item Club special report on services exports' on UK's historic service exports performance (based on OECD database on exports). It suggests "the key factor behind the UK's success was that its exports were focused on the markets which were growing quickest". The report also identified exports of financial and business services were at the forefront of the historic growth in services. It suggests much of this success was linked to the City of London. According to this research, of the other six largest exporters of services, only Germany achieved stronger growth than the UK between 2002 and 2007. This is in contrast to evidence on goods exports. The UK has shown a persistent trade deficit in goods that UK has had since the late 1990s (the earliest data point that the current consistent statistics provide). The report also notes the "geographical focus of goods exports has been the main reason for the UK's persistent underperformance".

More recently, the ONS published analysis on UK's trade ('How important is the European Union to UK trade and investment?') that shows that UK exports to the EU and non-EU countries have grown on average by 3.6 per cent and 6.5 per cent respectively. Whilst UK trade with the EU is dominated by goods rather than services (two-thirds of all UK exports to the EU were goods). The "UK exports of goods and services to non-EU countries have grown at a faster rate than imports, driven largely by services exports."

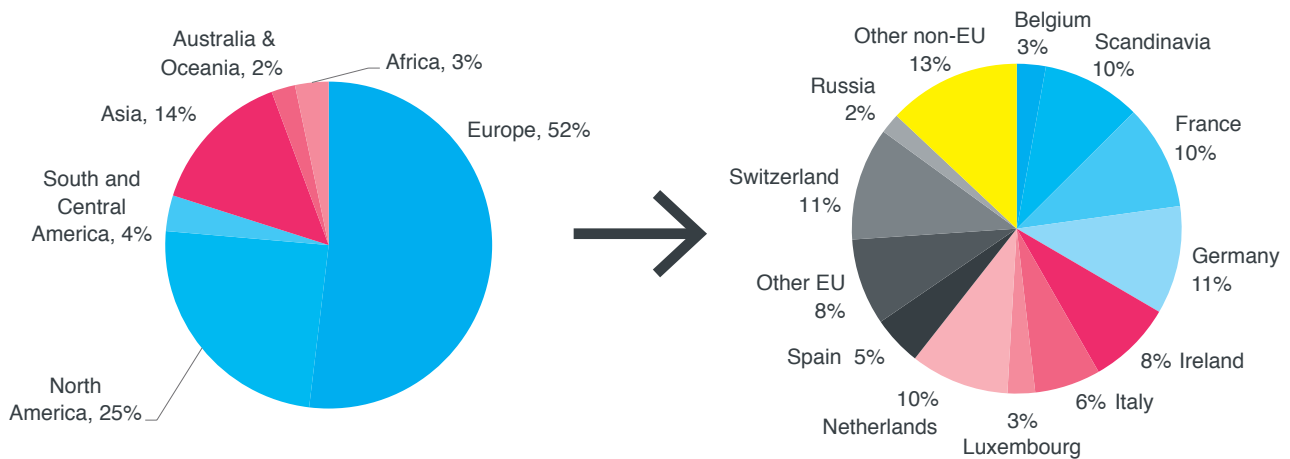
Figure 2.8: Estimated share of London's service exports by industrial category



Source: Pink Book for UK level service exports data, ONS and GLA Economics modelling

Recent research has suggested that the UK's success in expanding its service exports over the last decade or so was largely down to the choice of export markets and the fast growing demand for the UK's service industries in these countries. Recent ONS research notes that "although the UK has historically recorded a trade in goods deficit with the EU, its trade in services balance with the EU is much more favourable, running a surplus in each year since 2005, which reached £15.4 billion in 2014"³⁷. The ONS publication also reports that around 44.6 per cent of the UK's goods and service exports go to the EU in 2014. However, this share has continued to decline from around 54.8 per cent in 1999. Figure 2.9 illustrates the UK's key service export destinations in 2013 with Europe and North American economies accounting for almost three quarters of all UK exports of services.

Figure 2.9: UK exports of services by destination in 2014

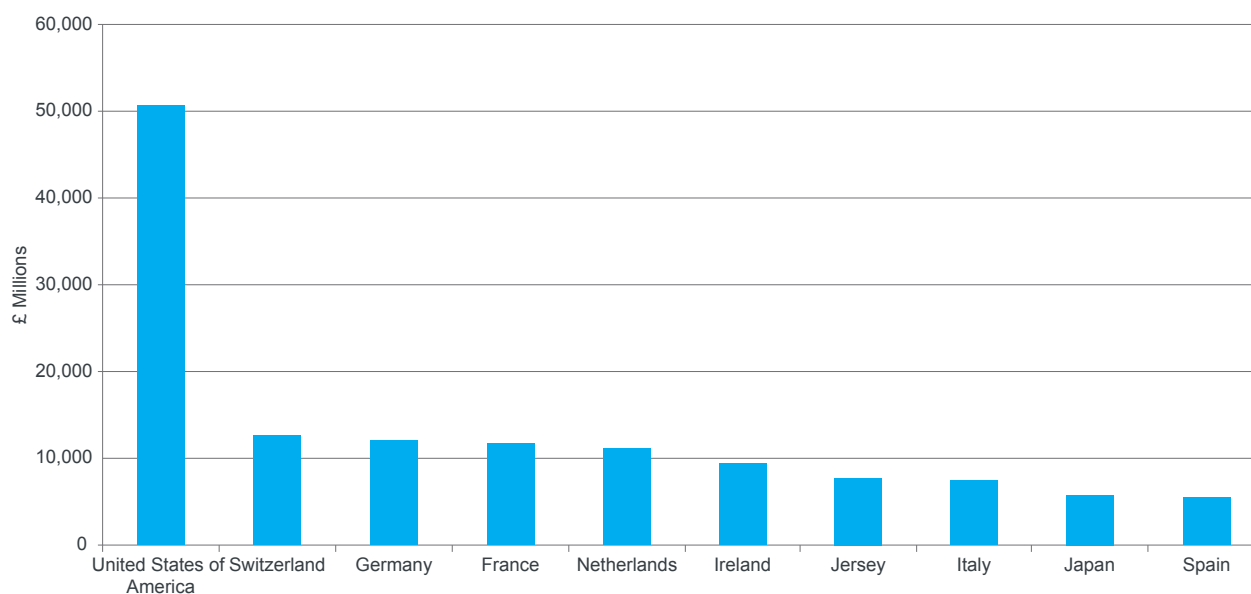


Source: The Pink Book 2015, ONS

³⁷ ONS, 26 June 2015, 'How important is the European Union to UK trade and investment?'

Looking at the more detailed data on the UK's service export by destination Figure 2.10 shows that in terms of value of exports, advanced economies account for the top ten key export destinations. However, as Figure 2.9 suggests the faster growing Asian economies also accounted for a considerable proportion of all UK service exports in 2014, approximately 14 per cent.

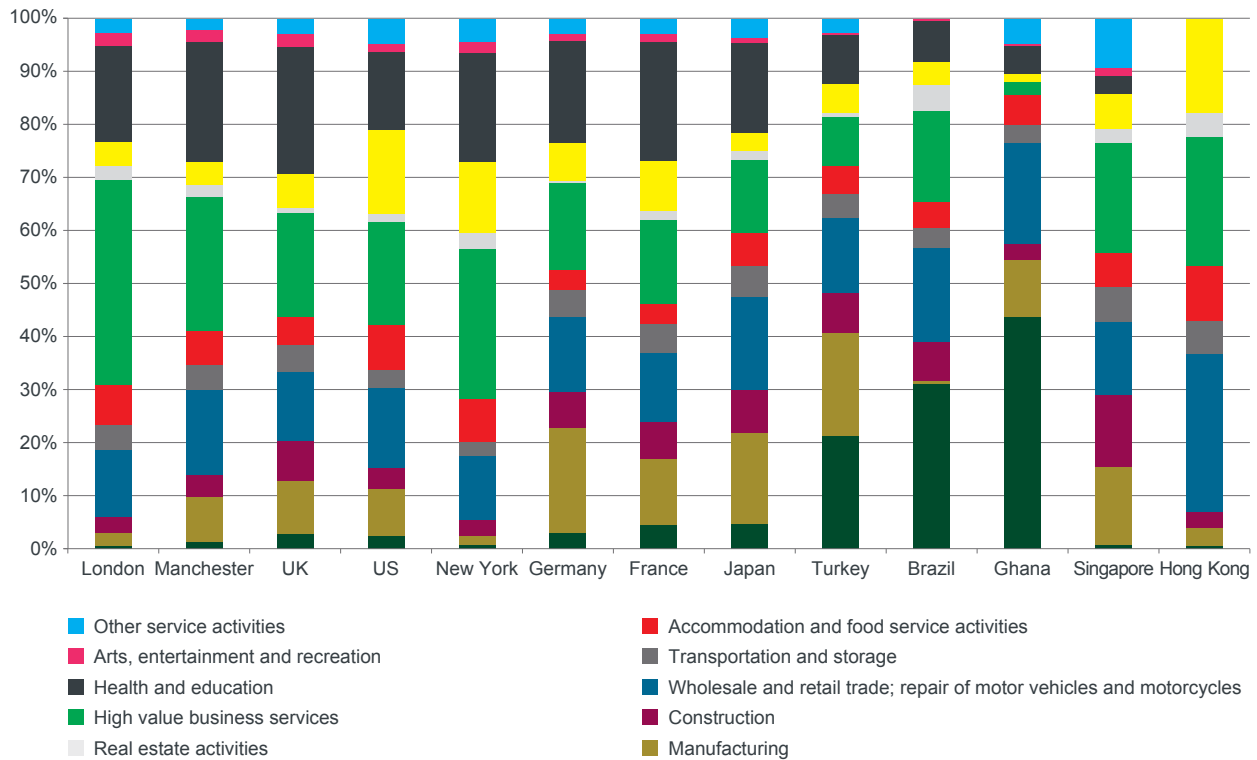
Figure 2.10: UK exports of services by destination in 2014



Source: Trade in services, Pink Book 2015, ONS

As economies tend to focus and specialise in the production of goods and services that they are relatively better at producing, the industrial composition of different countries and regions tend to vary. Figure 2.11 shows that London's employment composition is different to the UK's but also differs to that of Manchester and other developed economies such as Germany's. For example, professional, scientific and technical activities account for the largest share of jobs in the capital, whilst manufacturing and wholesale and retail industries are the two most prominent employers in both Germany and Japan.

Figure 2.11: Industrial composition of London and the UK compared to some other countries^{38, 39, 40, 41, 42}



Source: BRES; Eurostat; International Labour Organization; Bureau of Labour Statistics, United States Department of Labour; Census and Statistics Department, Hong Kong; the Ministry of Manpower, Singapore Government. Note: The latest data point varies across countries.

³⁸ For London, Manchester, New York, Germany, France, Turkey and UK data are for 2014, US for 2012, Japan for 2013, Brazil for 2009 and Ghana for 2010. London data are from BRES, whilst UK data are based on figures from Eurostat.

³⁹ High value business services include: Information and communication; Financial and insurance activities; Professional, scientific and technical activities; and Administrative and support service activities (or our best estimate for the sectors that corresponds to the outlined sectors that data are available for).

⁴⁰ Data for the US and New York may differ from data provided on London, UK and the other European countries due to minor differences in Standard Industrial Classification system across the European Union and the US.

⁴¹ Education data for Singapore is included in Public administration.

⁴² Professional and administrative jobs data are grouped together for Hong Kong. In addition, Sections P to S are combined into one category in the source data. These sections include: P: Education; Q: Human health and social work activities; R: Arts, entertainment and recreation; S: Other service activities.

Table 2.5 demonstrates the relative export specialisation across the G7 countries across different service industries and how London compares to some of its trading partners. Sectors with an index score of less than one indicate that the country's exports don't specialise in that industry relative to other G7 economies. An index score above one suggests export specialisation in that particular service industry for that country. Relative to the other G7 economies, it is evident that the UK's service exports currently specialise in a number of industries. These are personal, cultural and recreational services; financial services; insurance & pension services; telecommunication, computer and information services; other business services. In comparison to other G7 countries, both the US and Germany specialise in five service industries, whilst France's service exports specialise in eight different service sectors. Several of these sectors are important to London's economy are areas in which London specialises in.

Table 2.5: Revealed comparative advantage in exports of services against the G7 advanced economies (2013)^{43, 44, 45, 46, 47}

	London	UK	France	US	Japan	Italy	Canada	Germany
Manufacturing services on physical inputs owned by others	1.4	1.1	2.9	...	0.5	2.7	...	1.5
Maintenance and repair services n.i.e.	0.3	0.4	1.2	1.5	0.0	0.2	0.9	1.2
Transport	0.5	0.7	1.2	0.8	1.8	0.9	0.9	1.4
Travel	0.6	0.6	1.1	1.2	0.5	1.9	1.0	0.7
Construction services	1.6	1.1	1.4	...	7.6	0.5	0.7	...
Insurance and pension services	0.6	2.6	1.0	0.7	0.0	0.6	0.6	0.7
Financial services	3.3	2.0	0.4	1.1	0.3	0.4	0.7	0.8
Charges for the use of intellectual property n.i.e.	0.4	0.5	0.4	1.7	2.1	0.3	0.4	0.4
Telecommunication, computer, and information services	0.7	1.1	1.0	0.8	0.3	1.2	1.7	1.6
Other business services	0.9	1.1	1.2	0.7	0.9	1.0	1.3	1.2
Personal, cultural, and recreational services	5.7	2.1	1.7	...	0.2	0.2	4.8	1.0
Government goods and services n.i.e.	0.3	0.6	0.2	1.6	0.9	0.5	0.8	1.0

Source: Balance of Payment Statistics, IMF, Pink Book, ONS and GLA Economics modelling

⁴³ The Group of 7 (G7) is a group of seven major advanced economies as reported by the International Monetary Fund (IMF) and consists of Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States.

⁴⁴ Balassa Index of Revealed Comparative Advantage, captures the degree of trade specialisation of a country, and is defined as RCA where x_{ij} are exports of services j from country i ; x_i are total exports from country i ; x_{aj} are total exports of services j from the reference area (i.e. G7 countries); x_a are total service exports from reference area (i.e. G7 countries).

⁴⁵ (...) in the table reflects a lack of statistical data available that can be reported or calculated from underlying observations.

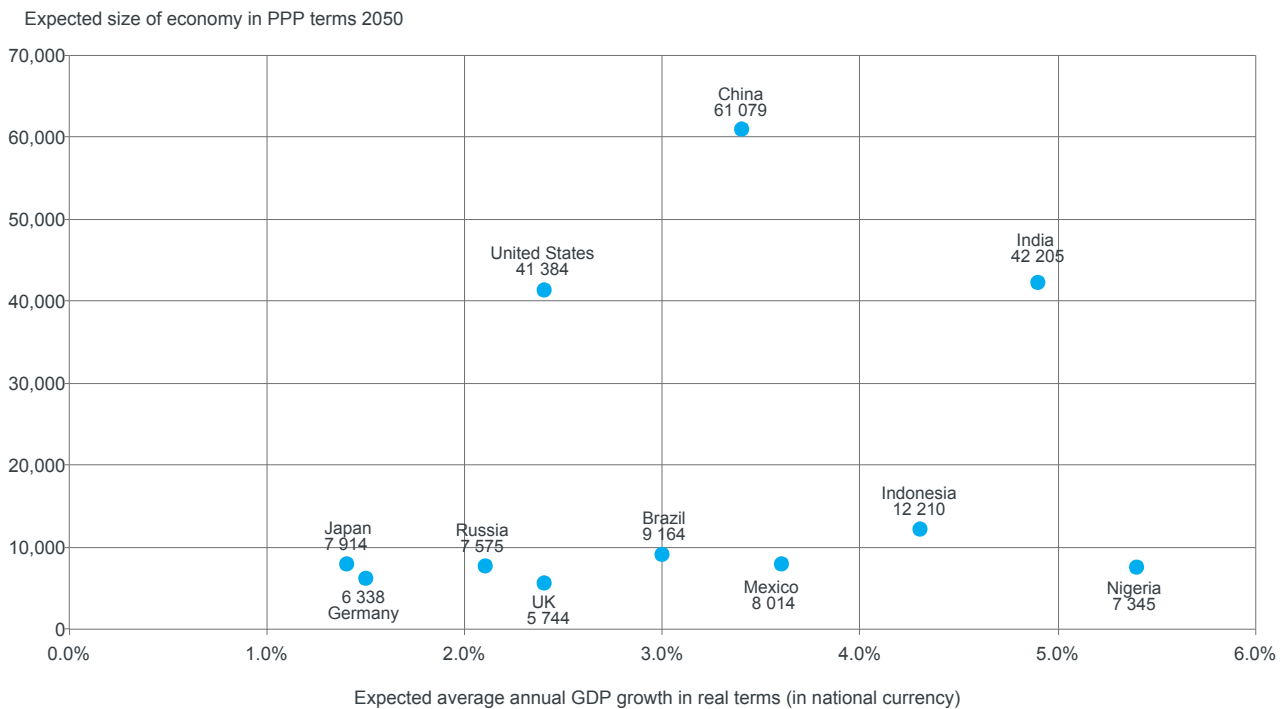
⁴⁶ London's service export estimates for Construction services, Manufacturing Services on Physical Inputs Owned by Others and Maintenance and Repair Services n.i.e. are based on UK service exports figures and London's average service export share of the UK industry level data.

⁴⁷ Export data for G7 countries is based on data from the IMF Balance of Payments database, whilst London level data are based on GLA Economics estimates.

Increased globalisation has led London to specialise increasingly in sectors in which it has a comparative advantage over its trading partners. For London this has meant specialising in the service industries and specifically in professional services.

The key service export destinations will likely have wider implications for London's economy in the future. This is because growth prospects in emerging economies far exceed expectations for the developed world. According to the some measures, despite its current slowdown, China's economy is closing in on overtaking the US and Figure 2.12 shows that in 2050 China is expected to be the largest economy at least in purchasing parity terms, whilst the next two largest economies India and the US are expected to be similar in size in purchasing power parity terms.

Figure 2.12: Expected size of global economies by 2050 and their expected average annual GDP growth

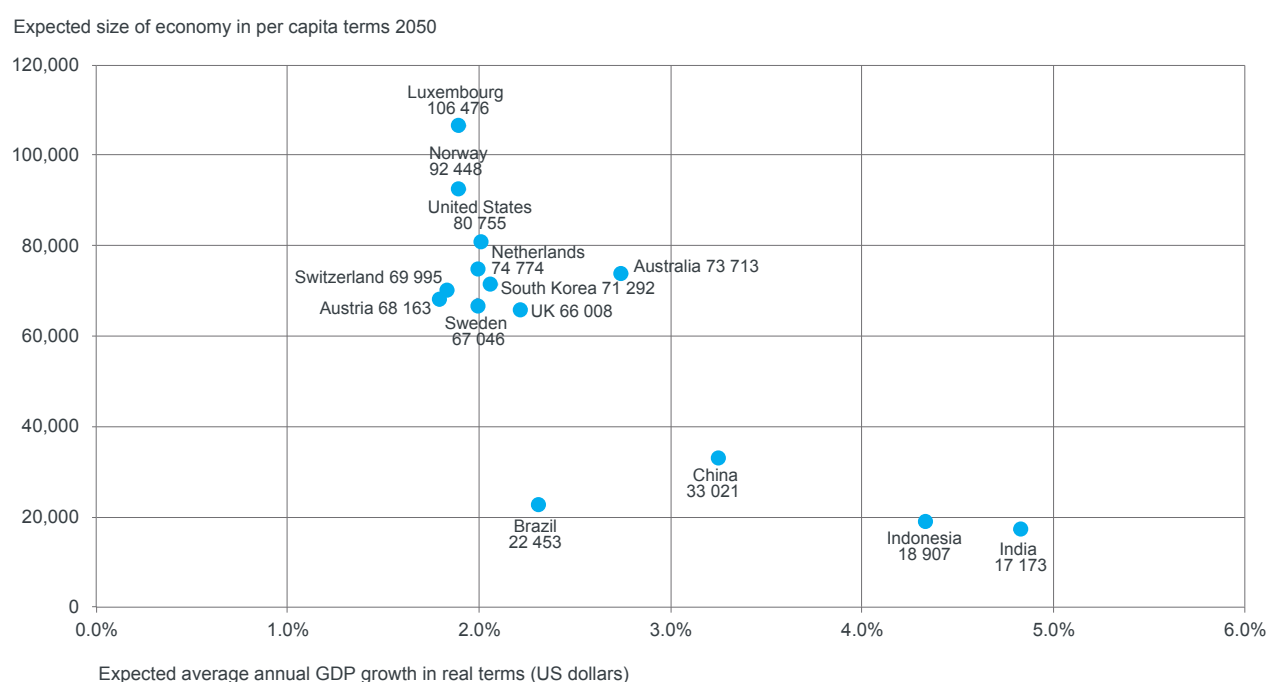


Source: PWC⁴⁸

⁴⁸ PWC, February 2015, 'The World in 2050 – Will the shift in global economic power continue?'

However, in per capita terms the US is expected to remain larger than China and India in 2050. Both China and India are expected to rank significantly behind the G7 economies in 2050.⁴⁹ This would suggest that despite the expectation that growth rates in China and India will continue to exceed those of the developed economies of North America, Europe and Japan. However, their demand for imports of services may take time to really take off. As their economies grow, they are likely to witness increased demand for business and professional services.

Figure 2.13: Expected size of global economies by 2050 in per capita terms and their expected average annual GDP growth



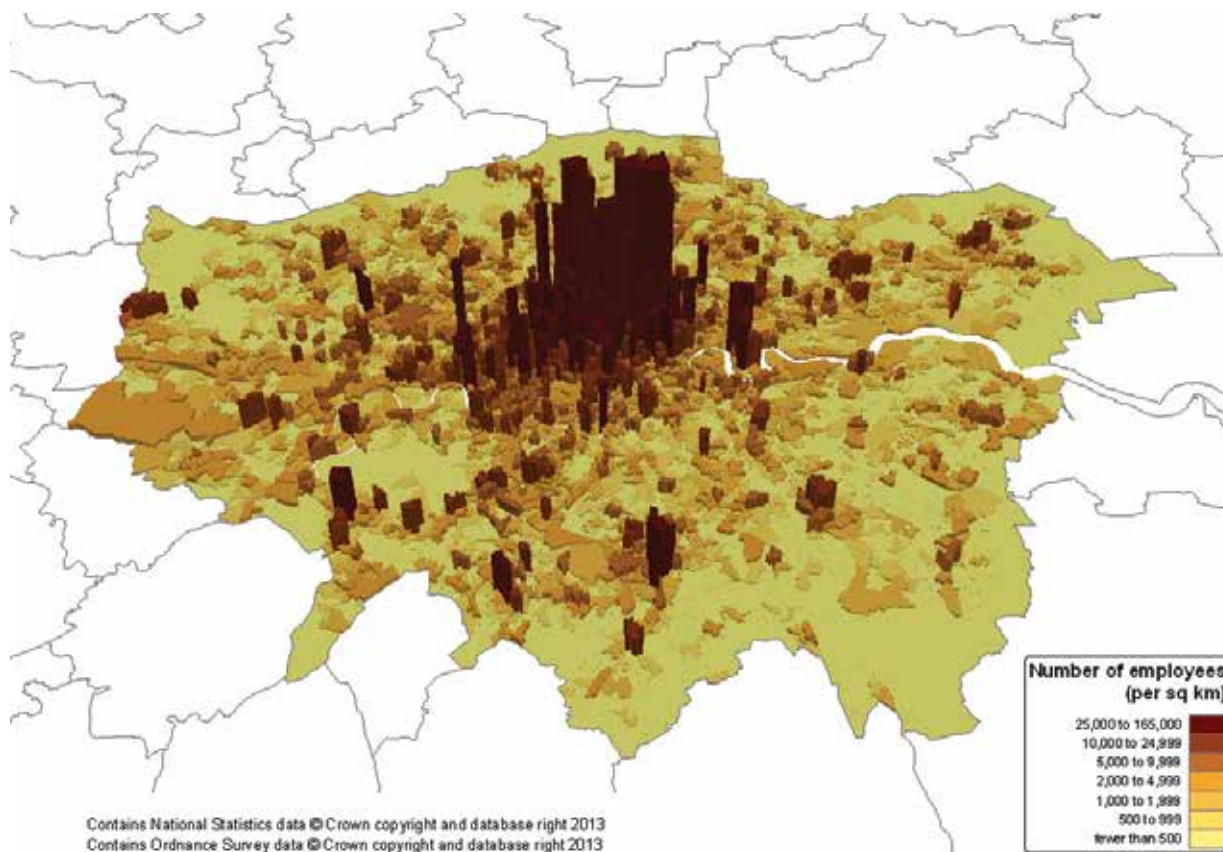
Source: OECD⁵⁰

⁴⁹ Ibid.

⁵⁰ OECD, May 2014, 'Economic Outlook No 95 – Long-term baseline projections'.

The sectoral specialisation outlined earlier in this chapter has in part also led to concentration of industries in particular areas of London, in particular the centre of London. As a result, central there is a concentration of employment at the centre of the city of London, as demonstrated in the employment density Maps 2.5 and 2.6.

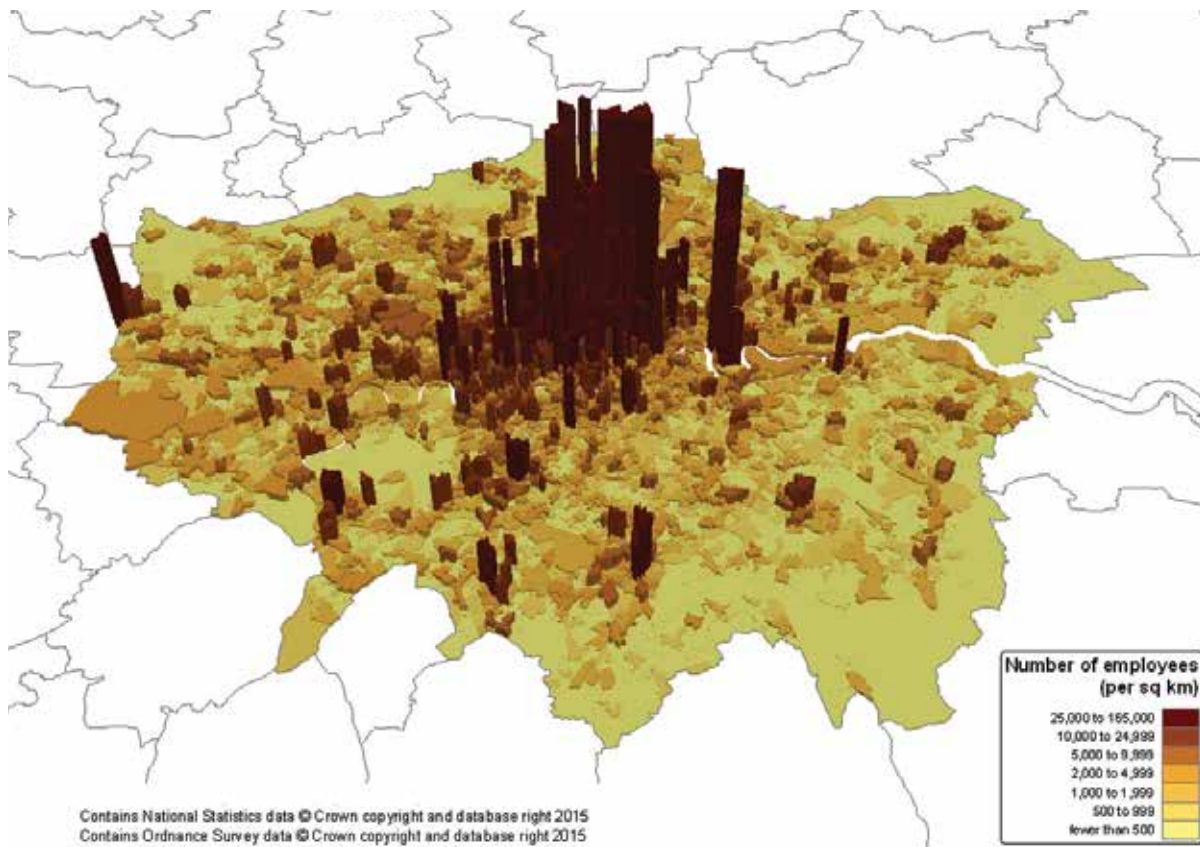
Map 2.5: Number of employees per square kilometre in 2003 in London



Source: Annual Business Inquiry (ABI)

It is also clear that over time concentration in areas of London has increased as can be seen if comparing Maps 2.5 and 2.6.

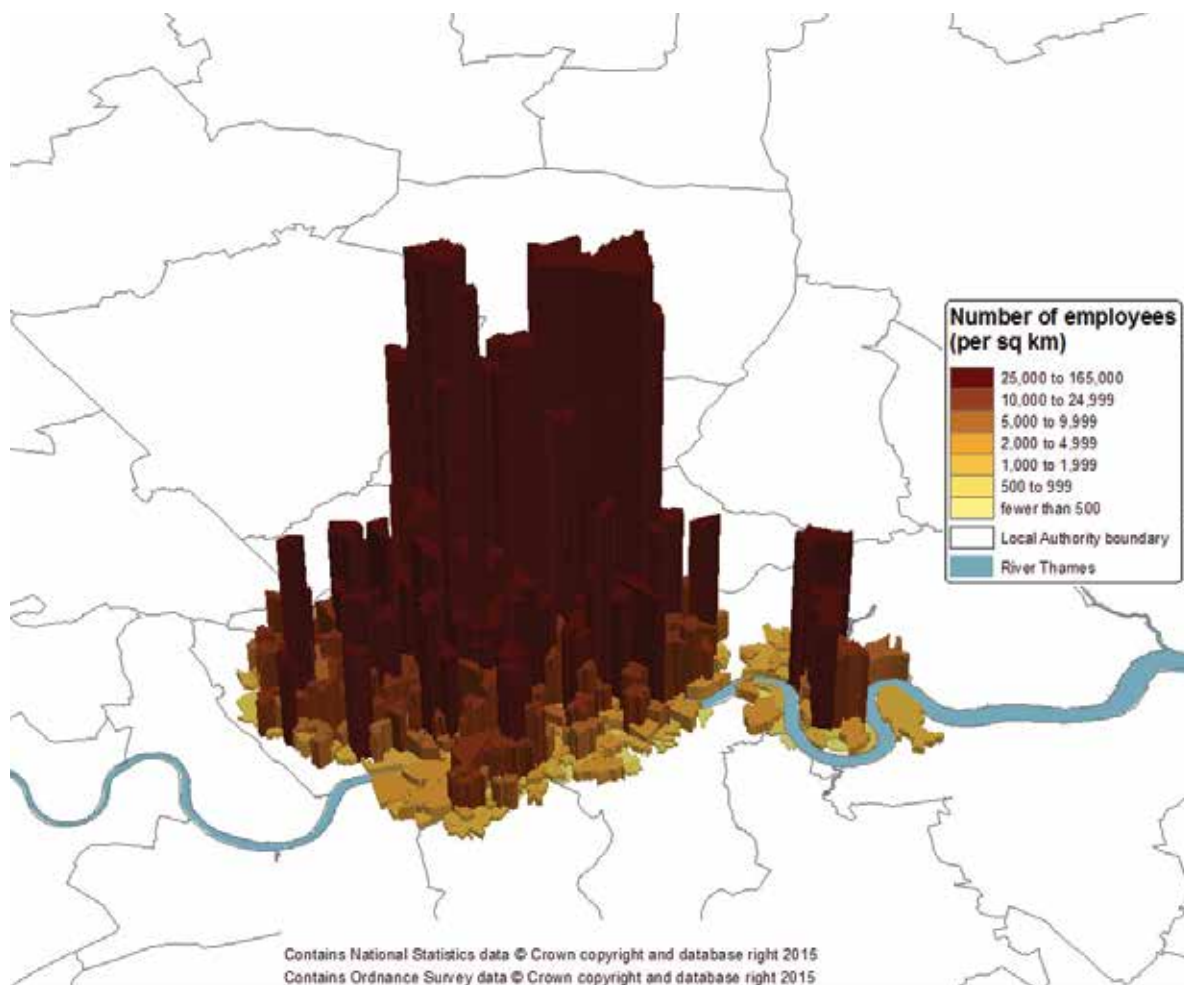
Map 2.6: Number of employees per square kilometre in 2014 in London



Source: BRES

GLA Economics produced recent analysis 'Work and life in the Central Activities Zone (CAZ), northern Isle of Dogs (NIOD) and their fringes'⁵¹. It shows that growth in the number of businesses, jobs and output was strong in the decade to 2013 in central areas of London. Maps 2.7 and 2.8 illustrate how concentration of jobs has increased between 2003 and 2014 in the centre of the CAZ and the NIOD. Furthermore, Table 2.6 shows how some sectors are now particularly concentrated in central London.

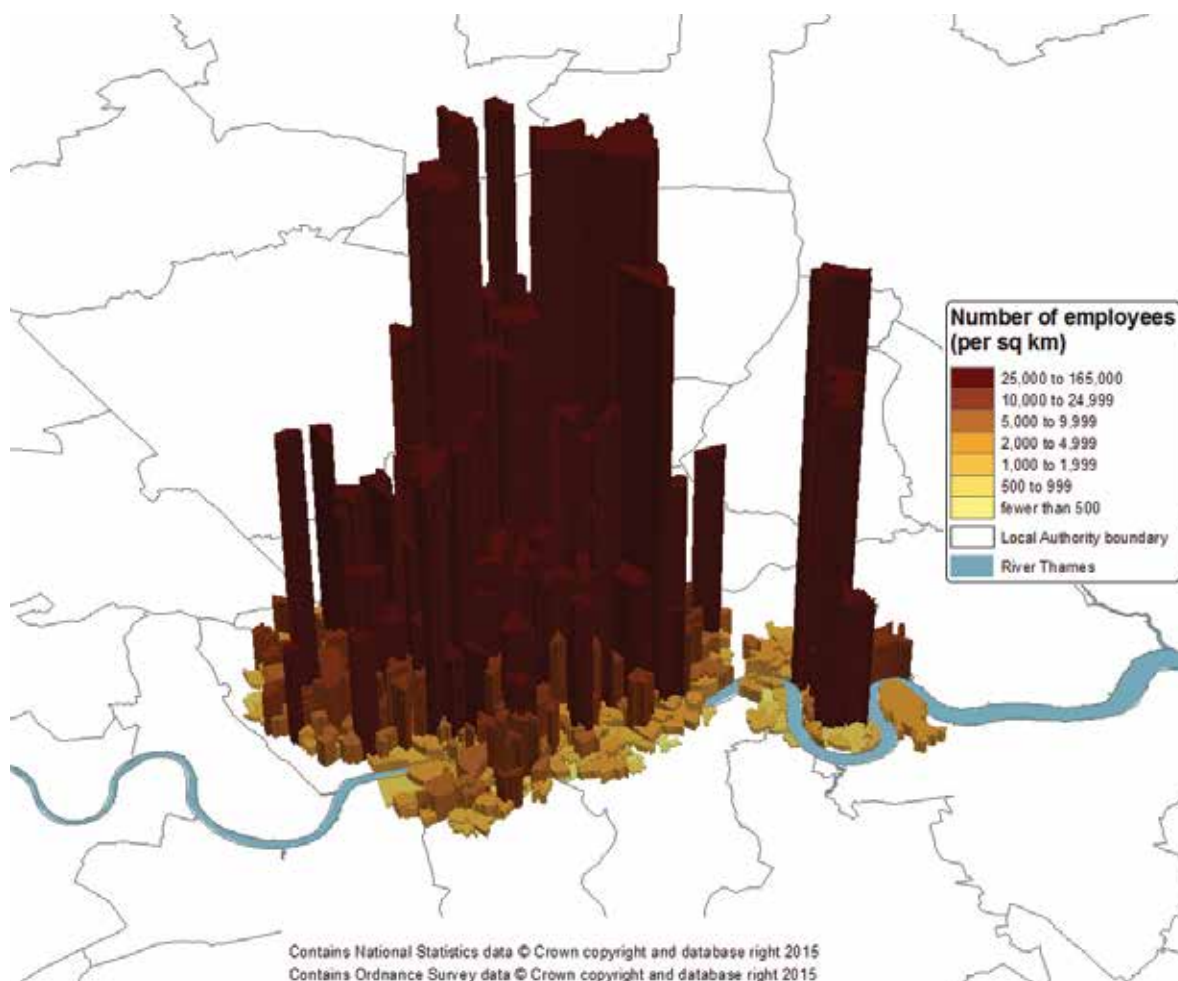
Map 2.7: Number of employee per square kilometre in 2003 in the CAZ, NIOD and an approximately 1 km fringe around them



Source: ABI

⁵¹ Douglass, G., August 2015, 'Working Paper 67 – Work and life in the Central Activities Zone, northern Isle of Dogs and their fringes'. GLA Economics.

Map 2.8: Number of employees per square kilometre in 2014 in the CAZ, NIOD and an approximately 1km fringe around them



Source: BRES

In 2014, the key sectors in terms of jobs in these areas were professional, scientific and technical; finance and insurance; Information & communication; business administration and support services; and accommodation & food services, as Table 2.6 shows. These are all industries in which London has a relatively strong specialisation compared to the rest of Great Britain, and generally a comparative advantage over some of the other G7 economies.

Table 2.6: Employment by sector in 2014 in the CAZ, NIOD, and an approximately 1 km fringe around them (top five sectors only)

	CAZ	CAZ as % of sector total for London	CAZ 1km Fringe	CAZ Fringe as % of sector total for London	NIOD	
Professional, scientific and technical activities	384,000	59%	39,000	6%	19,000	
Financial & insurance activities	243,000	68%	12,000	3%	57,000	
Information & communication	189,000	50%	28,000	7%	13,000	
Administrative and support services activities	179,000	36%	25,000	5%	15,000	
Accommodation & food services activities	137,000	37%	40,000	11%	5,000	

Source: BRES & GLA Economics calculations

	NIOD as % of sector total for London	NIOD 1km Fringe	NIOD Fringe as % of sector total for London	CAZ & NIOD	CAZ & NIOD as % of sector total for London	CAZ, NIOD & their Fringes	CAZ, NIOD & their Fringes as % of sector total for London
	3%	2,000	0%	403,000	61%	444,000	68%
	16%	1,000	0%	300,000	84%	312,000	87%
	3%	3,000	1%	202,000	53%	232,000	61%
	3%	9,000	2%	195,000	39%	229,000	46%
	1%	2,000	1%	142,000	39%	184,000	50%

This concentration is likely to encourage large agglomeration economies. By locating near each other, individual businesses in the sectors will benefit, as will the economy overall. Central London offers a range of unique factors. Its appeal to businesses is proven in inward investment (foreign direct investment is discussed in Chapter 5). London's attractiveness to people is also evident with huge numbers of people moving to the city in recent decades. The central London population (CAZ, NIOD and the fringe areas) is also growing faster than London's overall rate of growth.

Agglomeration benefits happen when specialised economic activity takes place in a particular area – like central London. This also boosts the economy by giving firms access to a deep and highly-skilled workforce. Other benefits include a range of complementary input and output markets and spill over effects including the rapid transfer of innovation and knowledge.

Maintaining and extending the public transport network also supports agglomeration. Moreover, evidence suggests that some sectors benefit more from agglomeration economies than others. This analysis suggests the sectors that benefit most from agglomeration economies are finance and insurance and business services. These are areas in which London specialises⁵².

⁵² Graham, D., 2007, 'Agglomeration, productivity and transport investment'. *Journal of Transport Economics and Policy*, 41(3).

3. LONDON'S CURRENT POSITION IN THE GLOBAL ECONOMY

3.1 Main findings

- London's economy ranks highly both domestically and internationally. It produces 22.6 per cent of the UK's output. If Londoner were a nation it would rank 8th out of European economies - behind the Netherlands, but ahead of Belgium and Sweden.
 - London was ranked top in a number of other surveys. These include Cities of Opportunity 2014 – PwC, European Attractiveness Survey 2015 – EY, Global Destination Index 2015 – MasterCard, Global Power City Index 2015 – The Mori Memorial Foundation, The World According to GaWC 2012 – Globalization and World Cities (Loughborough University), European Cities Monitor 2011 – Cushman & Wakefield, Global Financial Centre Index 18 – Z/Yen, and European Digital City Index 2015 – Nesta, to name just a few.
 - London is a highly attractive place to work. It draws in over half a million commuters a day. That means it's an important source of jobs in south-east England.
 - Over half of London's working age population has a tertiary education – the highest of any European NUTS 1 region. The south-east comes in fifth place, and significantly outranks New York on this measure.
 - London also has a relatively benign tax structure. It enjoys low corporation tax levels compared to other major competitors. However, its top rate of income tax is relatively uncompetitive in an international context.
 - London may be a big city by European standards. However, it is relatively uncongested in terms of population compared to other global cities.
-

- While there are some signs of a recent pickup, growth in productivity in the UK and London since 2008 has been lagging behind important international competitors.
- Further, housing cost and supply is one of the major concerns facing London going into the 2020s as the city continues to grow.
- This lack of available property is also reflected in the office market. A number of international surveys have highlighted high office rent costs and forecast declines in office vacancy rates compared to other world cities.
- The impact of pollution, both environmental and noise, makes London a less enjoyable place in which to live or work.
- Finally, while not the worst internationally, continued improvement in both education and healthcare are required to ensure London remains attractive to a global workforce.

This chapter looks at the factors that make London internationally attractive. It also examines the factors that could put this at risk in the longer term. Appendix A provides data for a more detailed comparison between London and New York.

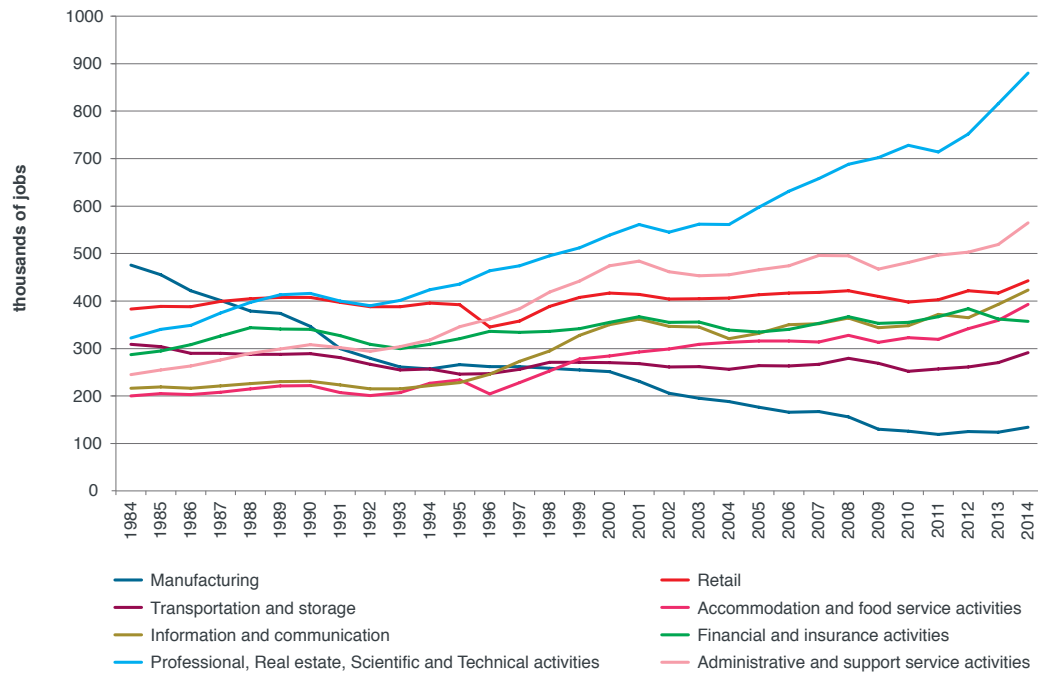
3.2 London's success as a location for business and economic activity

Several factors are required to ensure that a city ranks highly in terms of prosperity. The UN-Habitat has defined these in the Wheel of Urban Prosperity as shown in Figure 3.1 below⁵³. They further observe that “prosperity takes in all urban functions as subsumed in five main categories”. The five categories are:

- “Productivity: Contributes to economic growth and development, generates income, provides decent jobs and equal opportunities for all through effective economic policies and reforms”.
- “Infrastructure development: Provides adequate infrastructure – water, sanitation, roads, information and communication technology – in order to improve living standards and enhance productivity, mobility and connectivity”.
- “Quality of life: Enhances the use of public spaces for the sake of community cohesion and civic identity, and guarantees individual and material safety and security”.
- “Equity and social inclusion: Ensures equitable (re)distribution of the benefits of prosperity, reduces poverty and the incidence of slums, protects the rights of minority and vulnerable groups, enhances gender equality, and ensures civic participation in the social, political and cultural spheres”.
- “Environmental sustainability: Values the protection of the urban environment and natural assets while ensuring growth, pursues energy efficiency, reduces pressure on surrounding land and natural resources, reduces environmental losses through creative, environment-enhancing solutions”⁵⁴.

⁵³ UN-Habitat, 2012, 'State of the World's Cities 2012/2013'.

⁵⁴ Ibid.

Figure 3.1: The Wheel of Urban Prosperity

Source: UN-Habitat⁵⁵

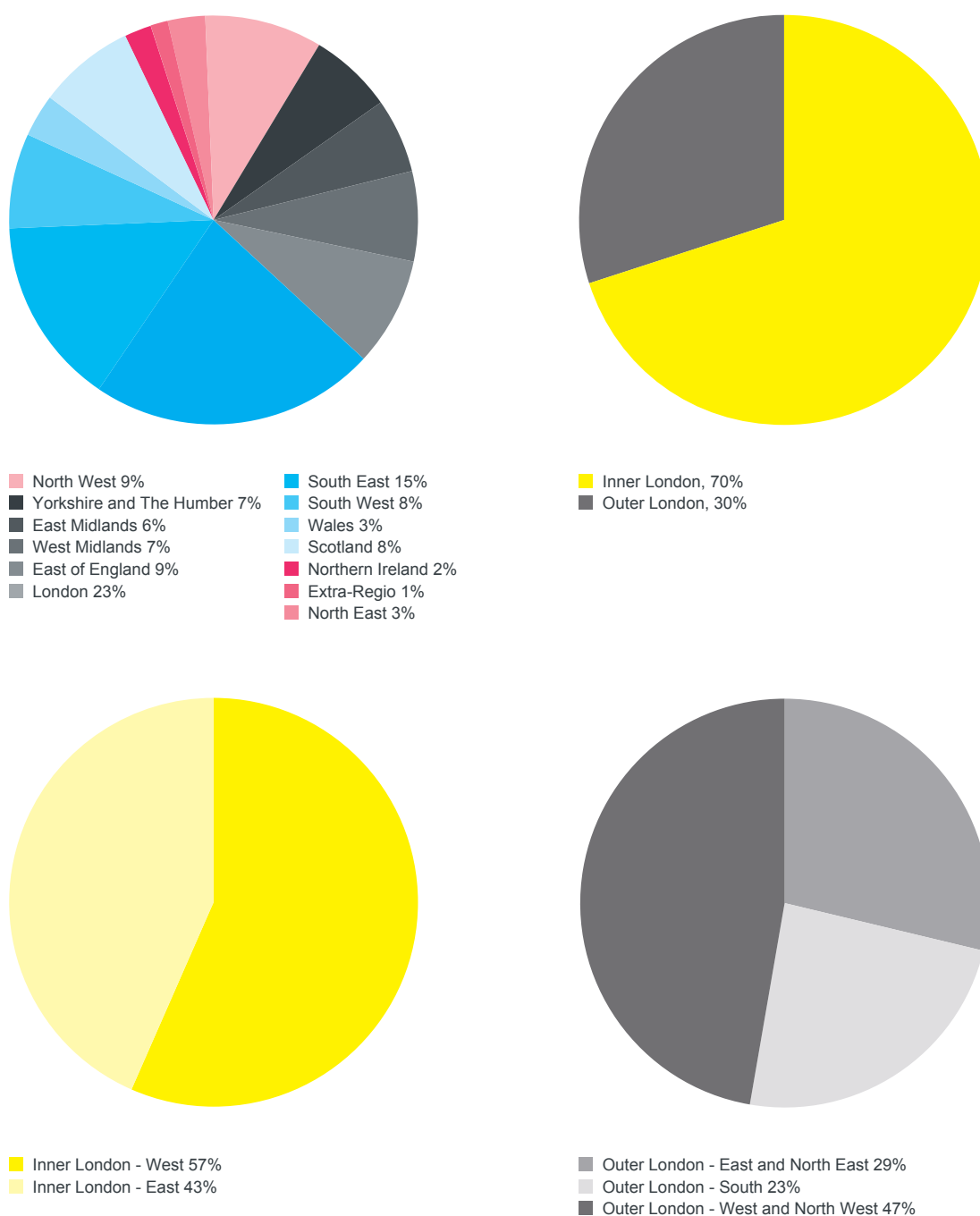
The UN-Habitat has ranked London fourth behind, Vienna, New York and Toronto in its City Prosperity Index. Thus it can be seen that a successful city requires a number of interlinking factors to guarantee its prosperity. The following sections will examine which factors make London an attractive and prosperous city to work and live in.

⁵⁵ Ibid.

Output

London is a major contributor to the UK economy. Indeed, London's total economic activity is far higher than any other UK region. It accounts for nearly 23 per cent of total UK GVA, as shown by Figure 3.2. This is clear when one notes that inner London alone counts for more of the UK's output than Scotland, Wales and Northern Ireland combined.

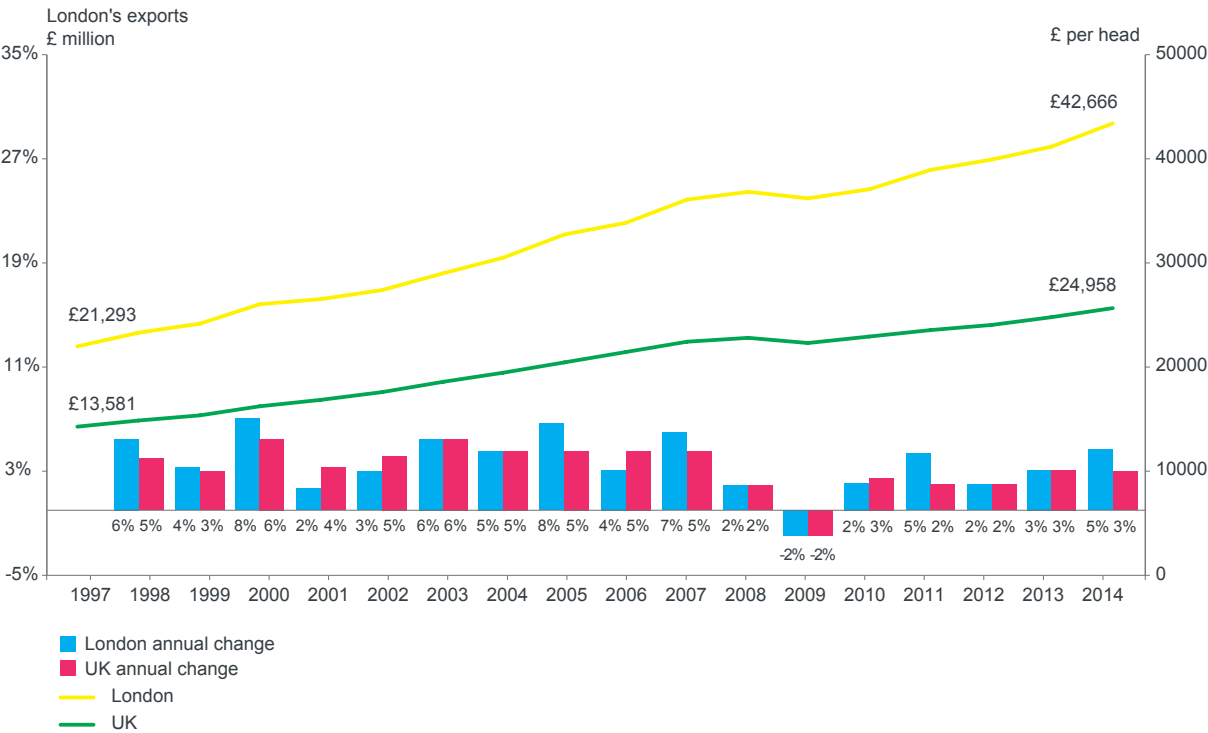
Figure 3.2: Share of UK output by region, 2014



Source: ONS

The dynamism of London's economy is even more marked when we examine GVA per capita, as shown in Figure 3.3. As can be seen London's output per head is much higher than the UK average and this gap has increased over time.

Figure 3.3: Output per head in London and the UK, 1997 to 2014 (current basic prices)



Source: ONS

However, outperforming domestic economies is a common trend among global cities. Thus on an output per head basis, London outperforms the UK by 72 per cent. In comparison, Paris outperforms France by 66.8 per cent and New York outperforms the USA by 35.7 per cent⁵⁶. Still as can be seen from Figure 3.4 parts of London⁵⁷ far outranks the UK and other European capital cities in terms of output per resident (although it should be noted given the large number of commuters into London a better measure of productivity would be output per worker). Further, London ranks highly when placed in an international context compared to other European regions. Table 3.1 shows London's (and other NUTS 1⁵⁸ regions) economy in terms of purchasing power standard (PPS) per resident. Table 3.2 shows the total output of countries in € millions. For comparison purposes the New York-Newark-Jersey City metropolitan area produced output equal to €1.12 billion in 2013⁵⁹. This high level of output is also likely to continue. In fact, a recent forecast found that London's output in 2025 would be the 6th highest in the world. This is behind Tokyo, New York, Shanghai, Los Angeles and Beijing, but ahead of Paris, Singapore and Hong Kong amongst others⁶⁰.

⁵⁶ Knight Frank, 2015, 'Global Cities Index 2015'.

⁵⁷ Note for the UK the green dot on Figure 3.4 represents Inner London only.

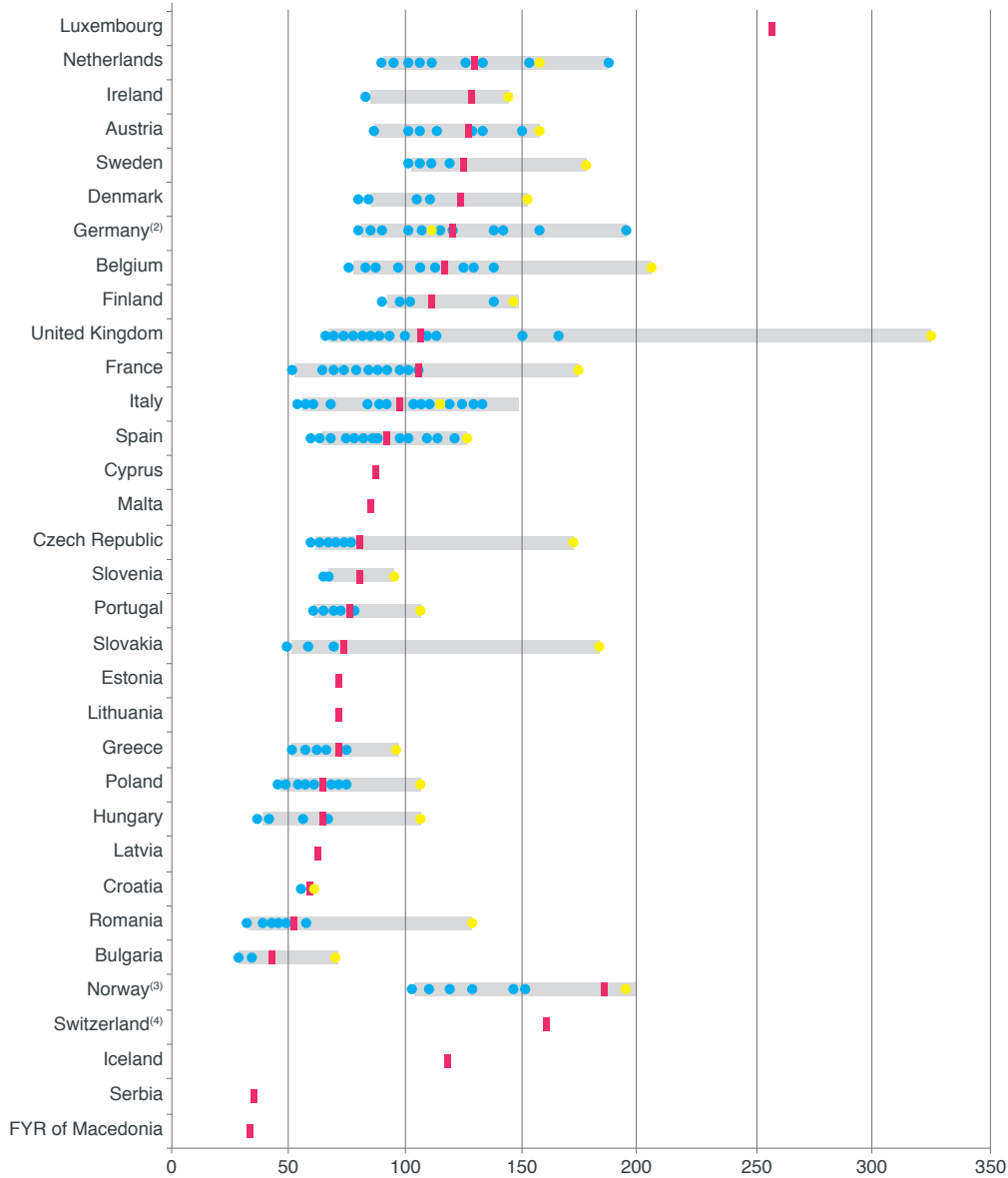
⁵⁸ NUTS stands for Nomenclature of Units for Territorial Statistics. It is a European classification for areas based on their size to ensure data across countries at different geographical levels are comparable.

⁵⁹ Based on Bureau of Economic Analysis data and the average annual €/£ exchange rate for 2013.

⁶⁰ London First, 2015, 'London 2036: An agenda for jobs and growth'. London Enterprise Panel.

Figure 3.4 Regional disparities in gross domestic product (GDP) per inhabitant, in purchasing power standard (PPS), by NUTS 2 regions, 2013
 (% of the EU-28 average, EU-28 = 100)

Figure 4.4: Regional disparities in gross domestic product (GDP) per inhabitant, in purchasing power standard (PPS), by NUTS level 2 region, 2013 ⁽¹⁾
 (% of the EU-28 average, EU-28 = 100)



⁽¹⁾ The light purple shaded bar shows the range of the highest to lowest region for each country. The dark green bar shows the national average. The light green circle shows the capital city region. The dark purple circles show the other regions.

⁽²⁾ Only available for NUTS level 1 regions.

⁽³⁾ Only available at national level.

⁽⁴⁾ 2012.

Source: Eurostat (online data codes: nama_10r_2gdp and nama_10_pc)

Source: Eurostat via ONS⁶¹

Table 3.1: Rankings by size of economy per capita (European region, NUTS 1), 2013

Ranking ⁶²	NUTS 1 region	Size of economy (PPS, €mn)
1	Luxembourg	68,500
2	Région de Bruxelles-Capitale/Brussels Hoofdstedelijk Gewest	55,100
3	Hamburg	51,900
4	Norway	49,600
5	London	48,800
6	Île de France	46,600
7	Bremen	42,200
8	Östra Sverige	39,800
9	West-Nederland	38,000
10	Bayern	37,800

Source: Eurostat

Table 3.2: Rankings by size of economy (European economies), 2013

Ranking	Country (or London)	Size of economy (GVA at current market prices, €mn)
1	Germany	2,672,693
2	France	1,868,891
3	UK	1,851,918
4	Italy	1,595,388
5	Spain	1,165,008
6	Poland	698,253
7	Netherlands	585,786
8	London	410,953
9	Belgium	351,083
10	Sweden	323,671

Source: Eurostat

⁶² Switzerland (which would rank at number 7) and Norge (which would rank at number 11 or number 10 excluding Switzerland) were not included even though they are NUTS 1 regions as they are also countries.

Business environment

Traditionally, London has provided businesses with an attractive, and internationally competitive, taxation and regulatory environment. This is supported by a number of international surveys, as shown in Table 3.3 below. London is ranked highly on a range of factors that make it attractive as a place to do business, to work, to live in or to visit. For instance, PwC found in 2014 that London's "economic clout, reputation as an urban gateway, technology access, and development and design capabilities topped a strong performance across a range of indicators measuring how major international cities are developing"⁶³.

Table 3.3: London's ranking in various surveys of cities

Survey where London came first	Survey where London came second	Survey where London was in the top five
Cities of Opportunity 2014 – PwC⁶⁴	Global Cities Index 2015 – A.T. Kearney ⁶⁵	City Prosperity Index 2012/ 2013 – United Nations (4 th) ⁶⁶
European Attractiveness Survey 2015 – EY⁶⁷	2025 City Competitiveness Index – The Economist Intelligence Unit ⁶⁸	Innovation Cities Index 2014 – Innovation Cities (3 rd) ⁶⁹
Global Destination Index 2015 – MasterCard⁷⁰	Sustainable Cities Index 2015 – Arcadis ⁷¹	
Global Power City Index 2015 – The Mori Memorial Foundation⁷²	Networked Society City Index 2014 - Ericsson ⁷³	
Global Financial Centre Index 18 – Z/Yen⁷⁴		
Cities in Motion Index 2015 – IESE Business School⁷⁵		
The World According to GaWC 2012 – Globalization and World Cities (Loughborough University)⁷⁶		
European Cities Monitor 2011 – Cushman & Wakefield⁷⁷		
European Digital City Index 2015 - Nesta⁷⁸		
GfK/Anholt City Brands Index⁷⁹ 2013		

⁶³ Price Waterhouse Cooper, 2014, 'Cities of Opportunity 6'.

⁶⁴ Ibid.

⁶⁵ A.T. Kearney, 2015, 'Global Cities Index and Emerging Cities Outlook'.

⁶⁶ UN Habitat, 2012, 'State of the World's Cities 2012/2013'.

⁶⁷ EY, 2015, 'European Attractiveness Survey 2015: Comeback time'.

⁶⁸ The Economist Intelligence Unit, 2013, 'Hot spots 2025, benchmarking the future competitiveness of cities'. Citi.

⁶⁹ Innovation Cities, 2014, 'Innovation Cities Index 2014'.

⁷⁰ MasterCard, 2015, '2015 Global Destination Cities Index'.

⁷¹ ARCADIS, 2015, 'Sustainable Cities Index'.

⁷² The Mori Memorial Foundation, 2015, 'Global Power City Index 2015'.

⁷³ Ericsson, 2014, 'Networked Society City Index'.

⁷⁴ Z/Yen, 2015, 'The Global Financial Centres Index 18'.

⁷⁵ IESE Business School, 2015, 'IESE Cities In Motion Index 2015'.

⁷⁶ GaWC, 2012, 'The world according to GaWC 2012'.

⁷⁷ Cushman & Wakefield, 2011, 'European Cities Monitor'.

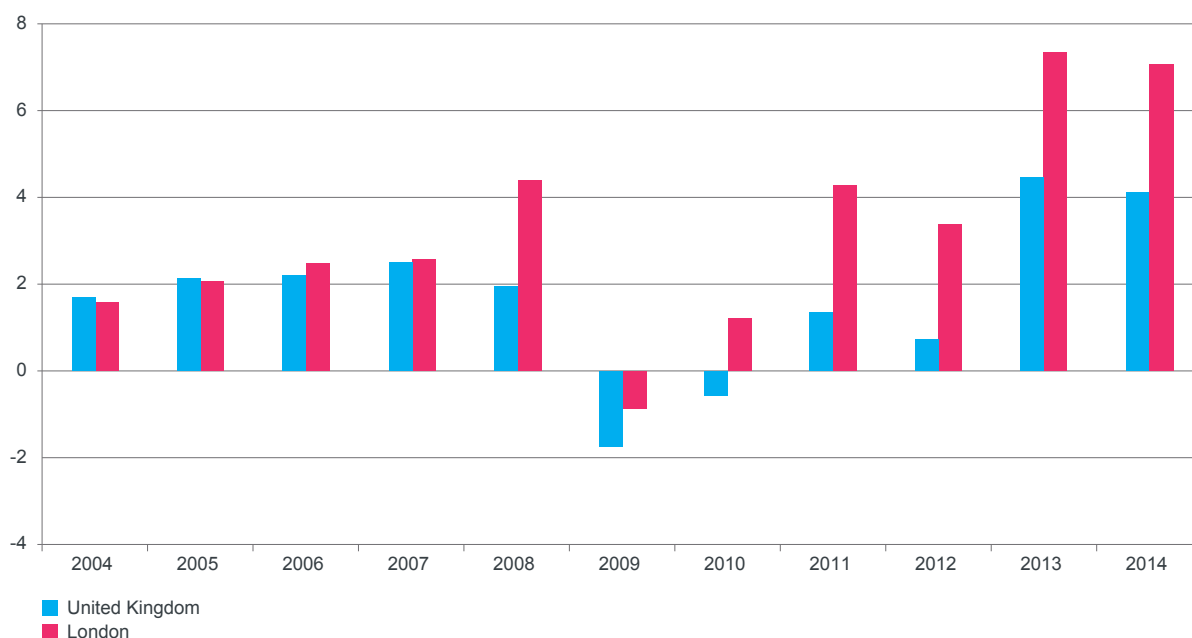
⁷⁸ Nesta, 2015, 'European Digital City 2015'.

⁷⁹ GfK, 2013, 'GfK/Anholt City Brands Index'

London's business environment is enhanced by the independence of the legal system, and stability of its political environment. This means businesses can be confident their actions (for example in making investment decisions) will not be unfairly or unduly affected by the government or others. London also has a natural advantage over most other cities in Europe as a base for establishing an internationally oriented business. That is because English has established itself as the international language for doing business and is the first language of most of London's workforce.

London is a dynamic economy for new businesses. Figure 3.5 shows the net business start-up rate as a percentage of total active enterprises in London compared to the UK as a whole. As can be seen, with the exception of 2009, more new businesses have been created in London than the number of businesses that have failed between 2004 and 2014. The gap between business births and deaths has been generally widening in recent years. This reflects London's improved attractiveness as a place to do business. London has also accounted for some 15 to nearly 90 per cent of net business start-ups in the UK as a whole from 2004 to 2008 and 2011 to 2014. London has been generally more dynamic than the UK. Net business start-ups as a percentage of active enterprises are higher in London than the rest of the country.

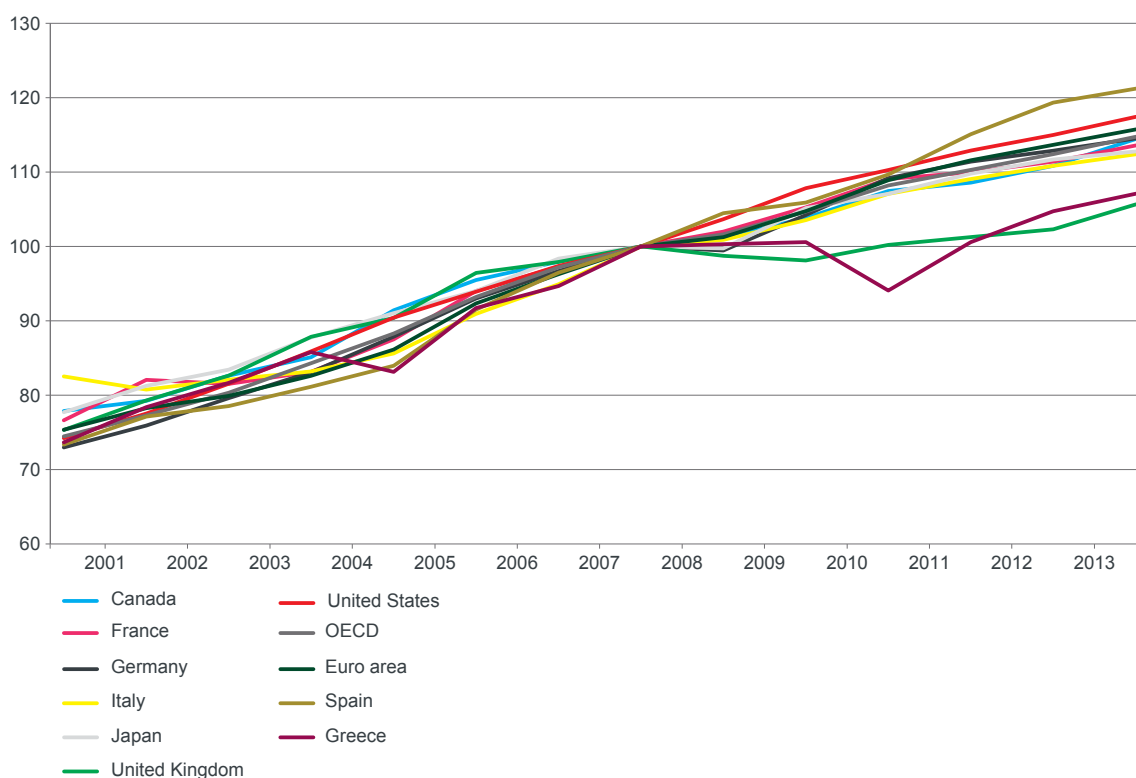
Figure 3.5: Net business start-ups as a percentage of active enterprises 2004 to 2014



Source: ONS and GLA Economics calculations

However, concerns have been raised about the long term prospects for the UK's, and by extension London's, economic growth. The reason for this is the slow growth in productivity in the UK since the recent recession. Figure 3.6 shows that output per hour worked has been relatively static in the UK since 2008 unlike in other economies. Looking at this in more detail it can be seen that this poor performance can be partly explained by the decline in UK output per hour worked in both 2009 and 2010. It has just regained the level it achieved in 2008 by 2011. From 2011 to 2013 UK output per hour worked grew at a slower pace than the OECD average. However, in 2014 this situation reversed. Output per hour worked rose at a faster rate in the UK than the OECD average. In further analysis the ONS observed that "output per hour in the UK was 17 percentage points below the average for the rest of the major G7 advanced economies in 2013, the widest productivity gap since 1992. On an output per worker basis, UK productivity was 19 percentage points below the average for the rest for the G7 in 2013"⁸⁰. Figure 3.7 looks at this in more detail. It shows output per worker in London and selected European countries and NUTS1 regions. As can be observed by 2013 London's output per worker had recovered more strongly than the UK as a whole.

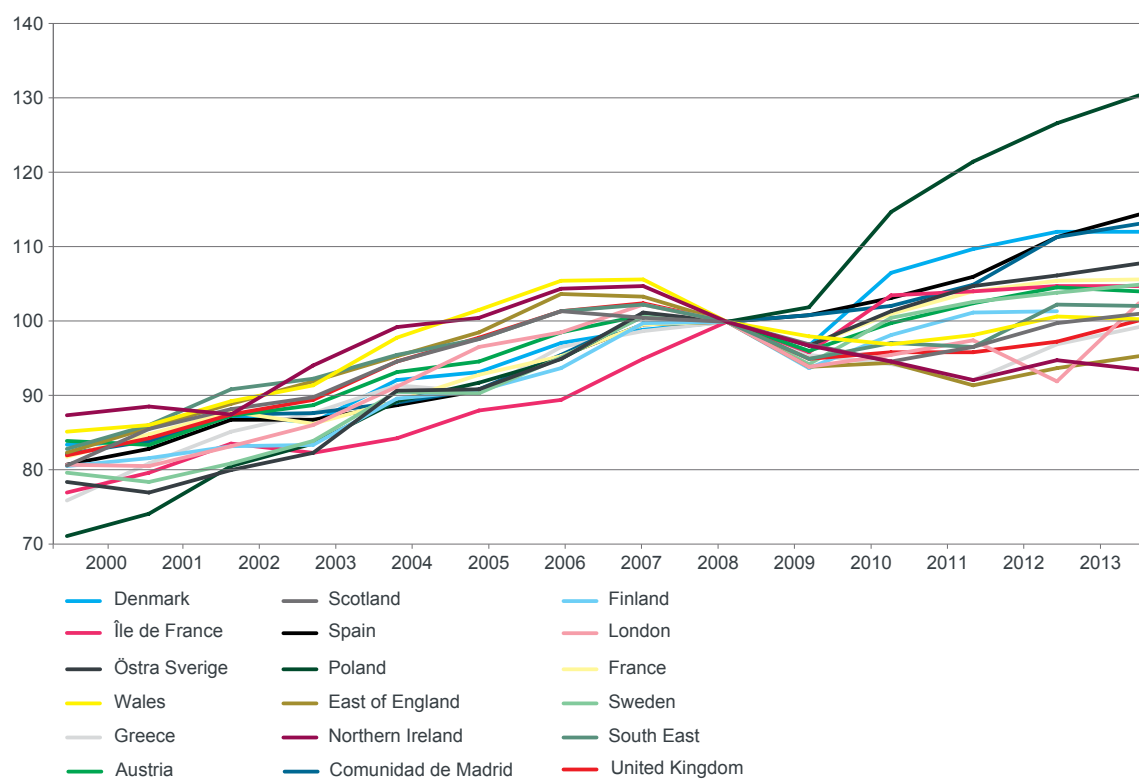
**Figure 3.6: GDP per hour worked in selected countries, 2001 to 2014
(index 2008=100)**



Source: OECD

⁸⁰ ONS, 20 February 2015, 'International Comparisons of Productivity - Final Estimates, 2013'.

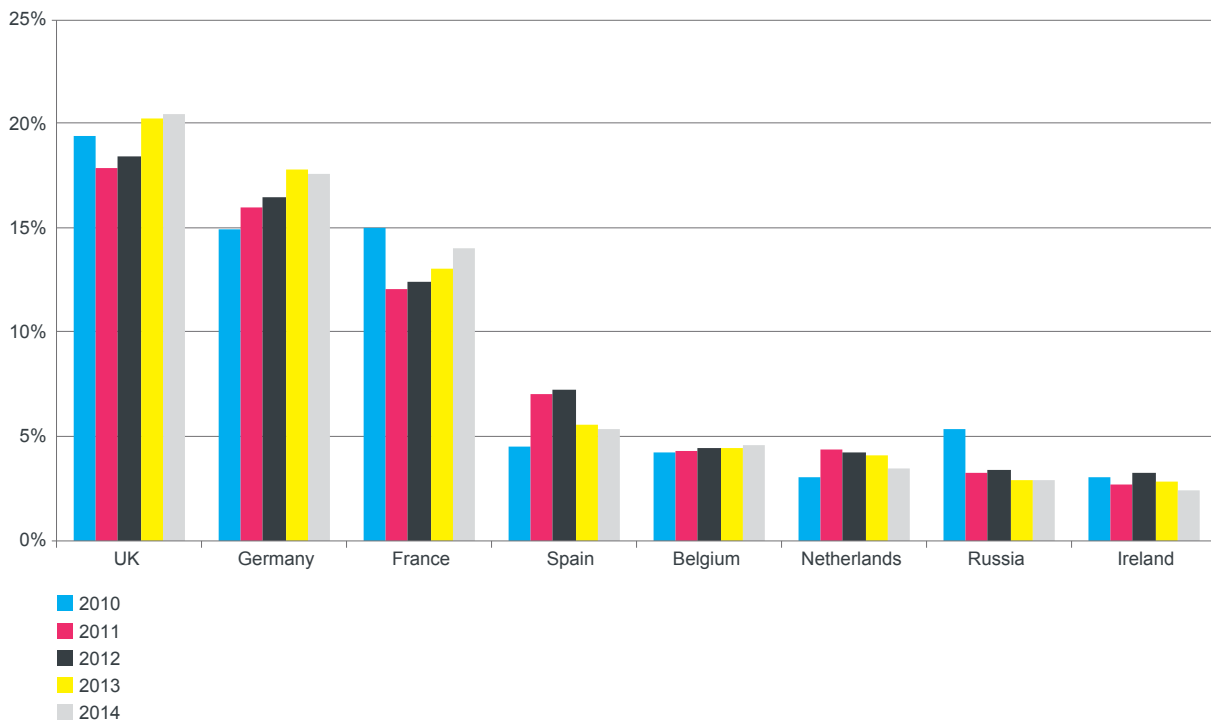
Figure 3.7: Output per worker in selected countries and NUTS1 regions, 2001 to 2013 (index 2008=100)



Source: Eurostat and GLA Economics calculations

Still, as Figure 3.8 shows, the UK has remained attractive as a destination for foreign investment. This illustrates foreign direct investment (FDI) flows into selected European countries as a percentage of total flows into Europe. It shows that the UK has attracted more FDI than any other European country for a number of years.

Figure 3.8: Share of total FDI projects in Europe, selected countries



Source: Various EY's European Attractiveness Surveys

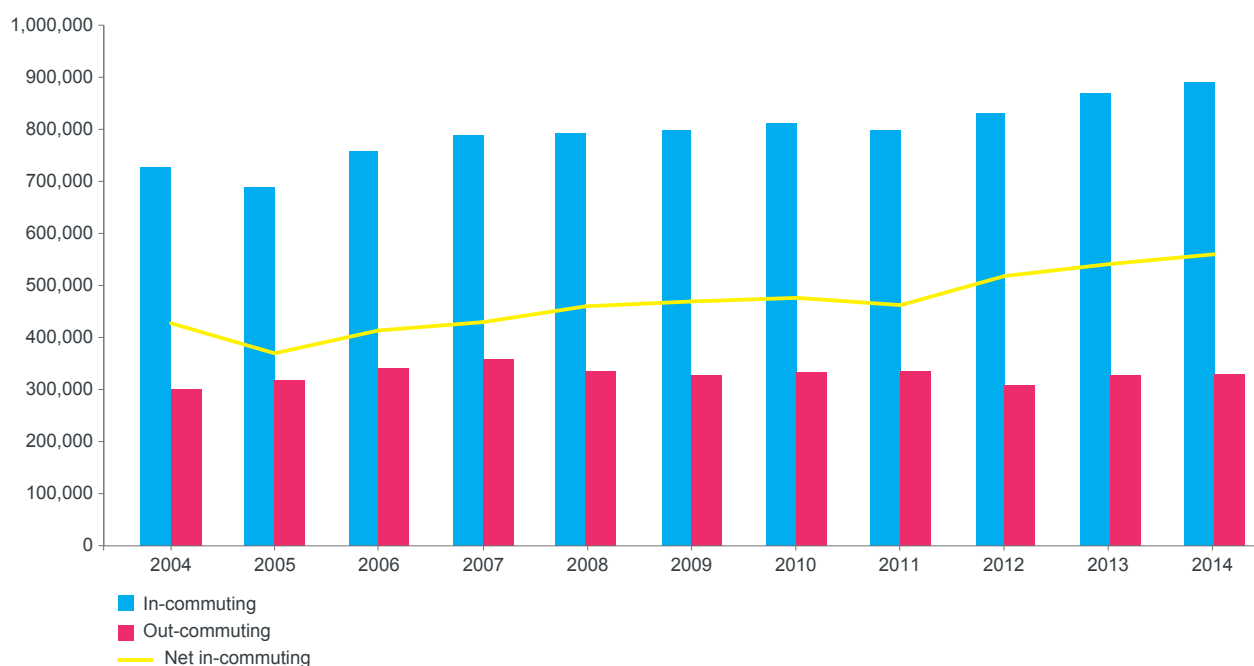
If we examine London's attractiveness as an international destination, a number of surveys ranked London highly. For instance, London was ranked first globally in 2014 by size of cross-border real estate investment⁸¹, with 33 per cent of investors in the office sector coming from Asia. Chapter 6 looks at London's attractiveness as a destination for FDI in more detail.

⁸¹ Savills, 2015, '12 Cities: investing and occupying world city real estate'.

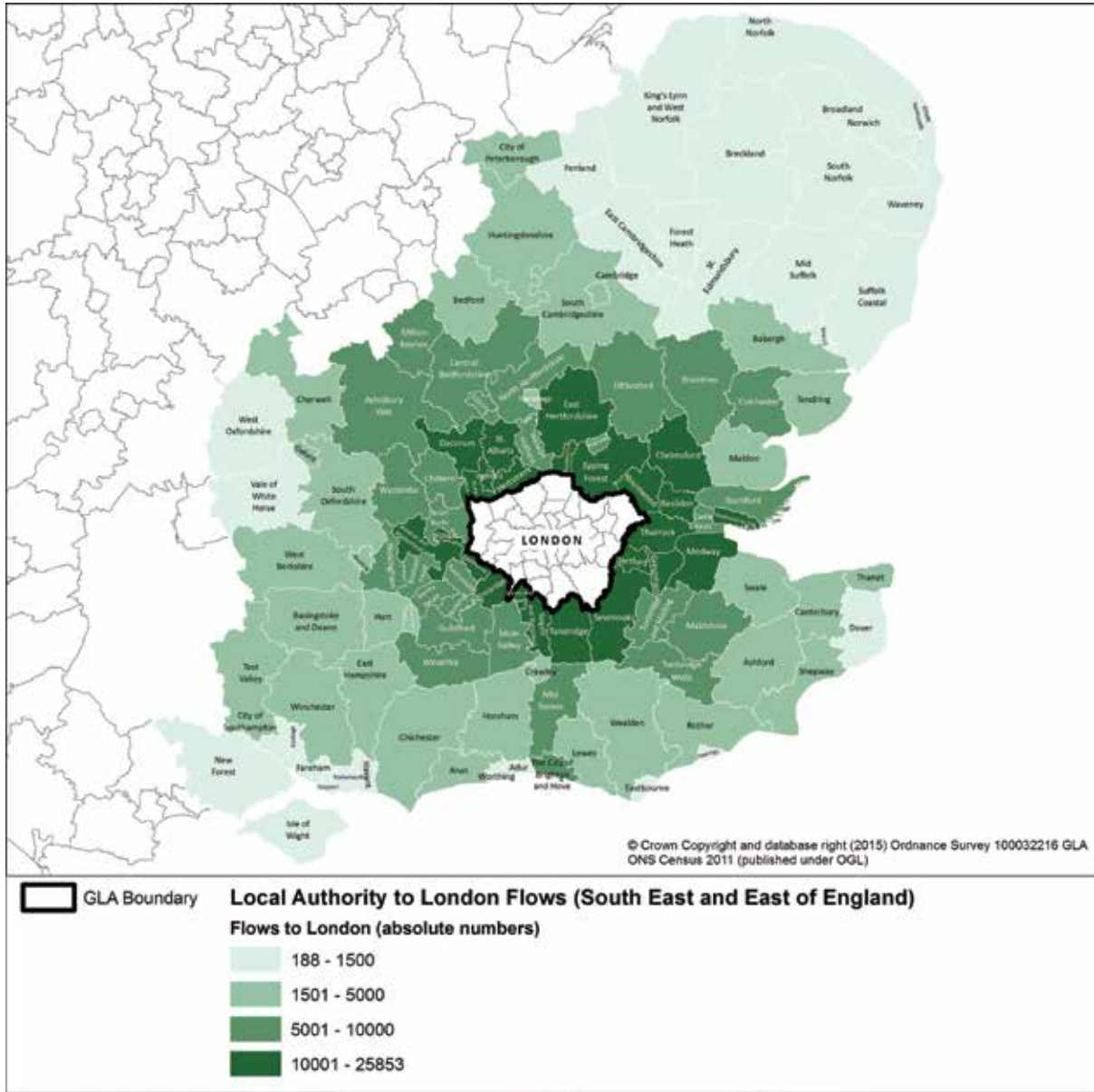
Workforce

London is a highly desirable place to work. It attracts a net inflow of over 500,000 commuters per day from the rest of the UK. This number has increased over the past decade as Figure 3.9 shows. While Maps 3.1 and 3.2 show the importance of London as an employment destination for the wider south-east in terms of both total jobs and as a percentage of an area's total workforce.

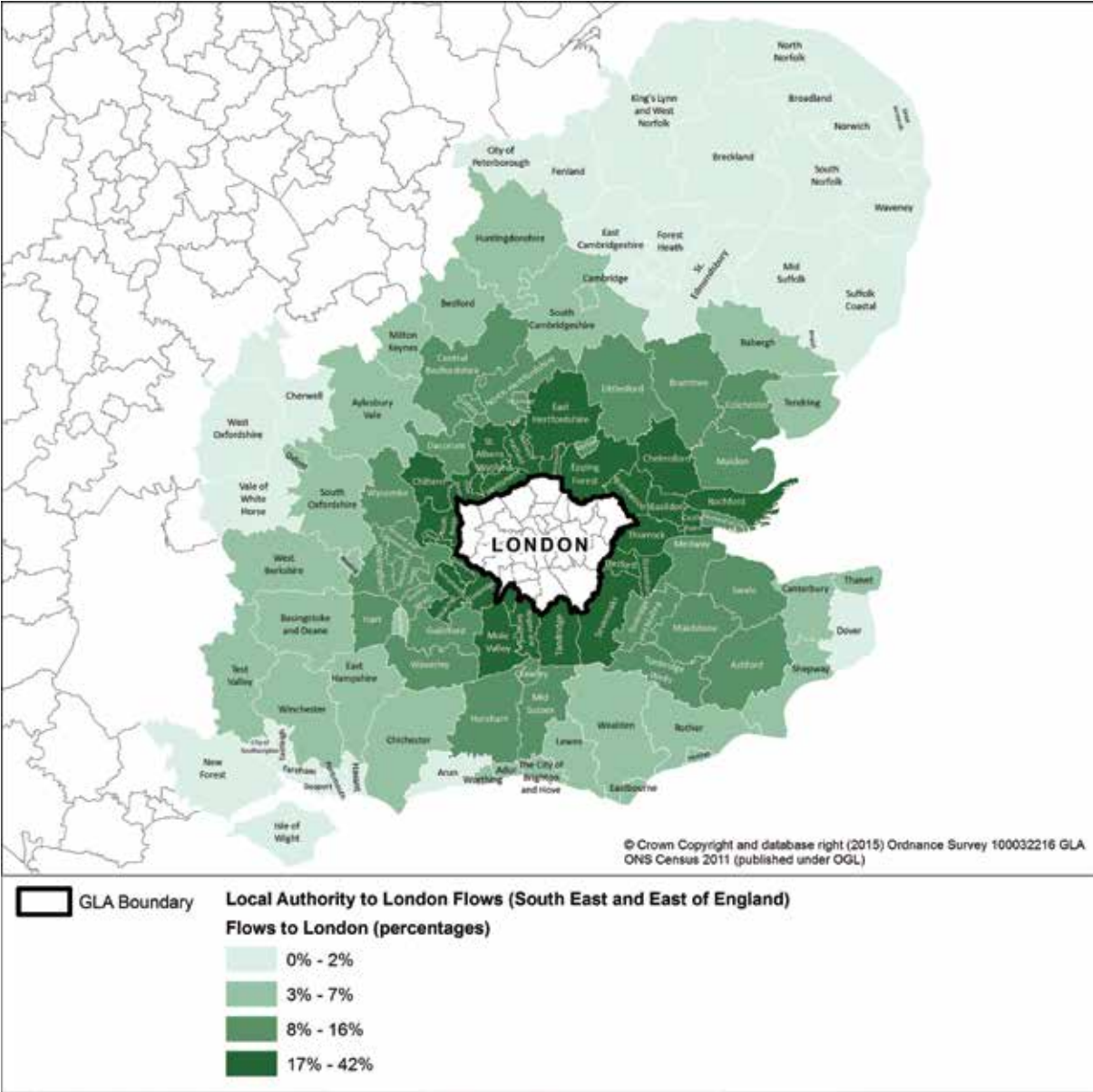
Figure 3.9: Commuting levels into and out of London 2004-2014



Source: Labour Force Survey



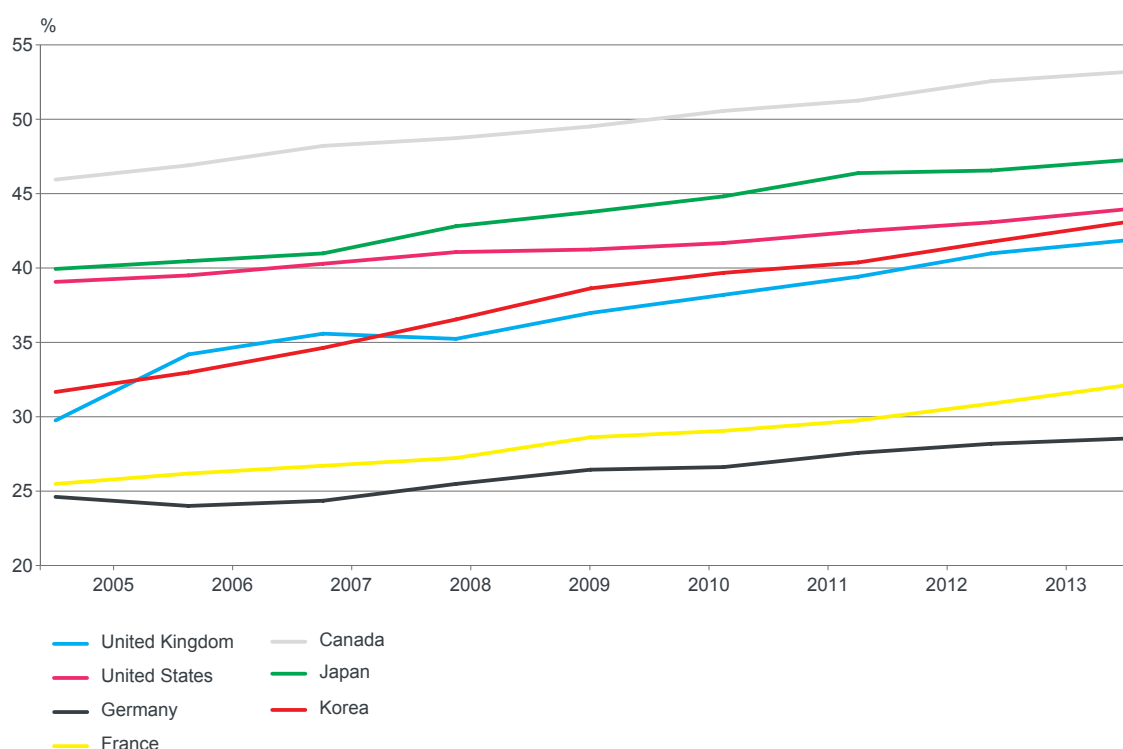
Map 3.2: Commuters into London (percentages of areas workforce)



Source: Census and GLA Intelligence Unit analysis

The UK has a highly educated workforce. This is shown in Figure 3.10 which details the percentage of the working population with a tertiary education. Whilst it lags behind Canada and the US, more of the working age population in the UK have a tertiary level education than its major European competitors. The UK has now converged on a level of tertiary education similar to that of Japan (after previously lagging behind). At a NUTS 1 level we can see from Table 4.4 that London has an even higher percentage of people with tertiary education than the UK as a whole. In fact as can be seen it has the highest percentage of people with a tertiary education of any European region. The south-east region provides a number of workers to London and was ranked fifth in 2014. London's situation would also appear to be stronger than New York. Data from the US Census Bureau indicates that 40.7 per cent of New York's population aged 25 and over has either an associate, bachelors, graduate or professional degree. In the 25-34 age bracket, 46.6 per cent of New York's population had a bachelor's degree or higher. This also holds for other world cities. The percentage of graduates in London's population was recently found to be higher than in Stockholm, San Francisco, Paris, Berlin, Chicago, New York, Los Angeles, Singapore, Shanghai and Tokyo⁸³.

Figure 3.10: Percentage of the working population with tertiary education, selected countries



Source: OECD⁸⁴

⁸³ London First, 2015, 'London 2036: An agenda for jobs and growth'. London Enterprise Panel.

⁸⁴ See: <https://data.oecd.org/eduatt/population-with-tertiary-education.htm>

Table 3.4: Ranking by percentage of 25 to 64 year old population with tertiary education, NUTS 1 region

Rank in 2014		2010	2011	2012	2013	2014
1	London	45.9%	50.6%	52.7%	54.3%	53.7%
2	Comunidad de Madrid	41.6%	43.1%	44.5%	46.0%	47.2%
3	Scotland	37.3%	41.5%	42.4%	43.9%	46.5%
4	Luxembourg	35.5%	37.0%	39.1%	40.7%	45.9%
5	South East (UK)	38.5%	41.0%	42.4%	43.2%	45.0%
6	Île de France	39.8%	40.8%	41.3%	42.2%	44.0%
7	Région de Bruxelles-Capitale / Brussels Hoofdstedelijk Gewest	42.1%	42.4%	42.7%	41.5%	43.5%
8	Östra Sverige	37.5%	38.6%	39.7%	41.4%	43.1%
9	Noreste (ES)	39.4%	40.2%	41.2%	41.5%	42.3%
10	Norge	36.9%	37.6%	38.6%	39.8%	42.3%

Source: Eurostat

Around 25 per cent of employed workers in London with a degree are non-UK nationals. Of these, almost 60 per cent are non-EEA nationals⁸⁵. Figure B1 in Appendix B highlights London's relatively high ranking in degree level qualification this time in relation to other cities around the world.

Higher education and research institutes

London also offers individuals and firms access to outstanding higher education and research facilities. It has four universities in the world top 40, as defined by the Times Higher Education, more than any other world city⁸⁶ (Imperial College London, University College London (UCL), London School of Economics (LSE), King's College London)⁸⁷. Further, London has six of the UK's top ten research institutions as rated by research excellence (Institute of Cancer Research, Imperial College London, LSE, King's College London, UCL, and London School of Hygiene and Tropical Medicine)⁸⁸. In 2012, research and development (R&D) expenditure in London was £3.7 billion which accounted for 1.2 per cent of London's gross value added (GVA)⁸⁹. London is also the top destination for international students in the world. There are over 100,000 international students from 200 countries studying in London⁹⁰. These students not only add to the diversity and culture of London's universities, they provide extra highly skilled workers for London's workforce. They also generate more tax revenue for the exchequer than required to pay for the public services they use^{91, 92}.

A diverse population

More than a third of London's population was born outside the UK. At the time of the 2011 census, almost three million people living in London were born outside the UK. Further, the proportion of Londoners born outside the UK has almost doubled since 1981. However, although the profile of those arriving in London from different countries does vary widely, in total a third of those living in London came to Britain when they were aged between 16 and 24⁹³. This young age profile of migrants should add to London's workforce. Chapter 8 of this report examines migration into London in more detail.

⁸⁵ GLA Economics calculation based on: ONS Published ad hoc data: labour market, requests during August 2013: Reference number 001724, 23 August 2013.

⁸⁶ The Times Higher Education World University Rankings 2015-16.

⁸⁷ The Greater South East has six universities in the world top 40 with the universities of Cambridge and Oxford joining this list.

⁸⁸ The Times Higher Education, REF 2014 results: table of excellence, 18 December 2014.

⁸⁹ GLA Economics calculation based on: ONS R&D expenditure for London for 2012, and the latest ONS estimate of London's GVA for 2012.

⁹⁰ Study London: Why Study in London?

⁹¹ Vickers, P., & Bekhradnia, B., July 2007, 'The economic costs and benefits of international students'. Higher Education Policy Institute. And LSE, 2007, 'The impact of recent immigration on the London economy'. City of London Corporation.

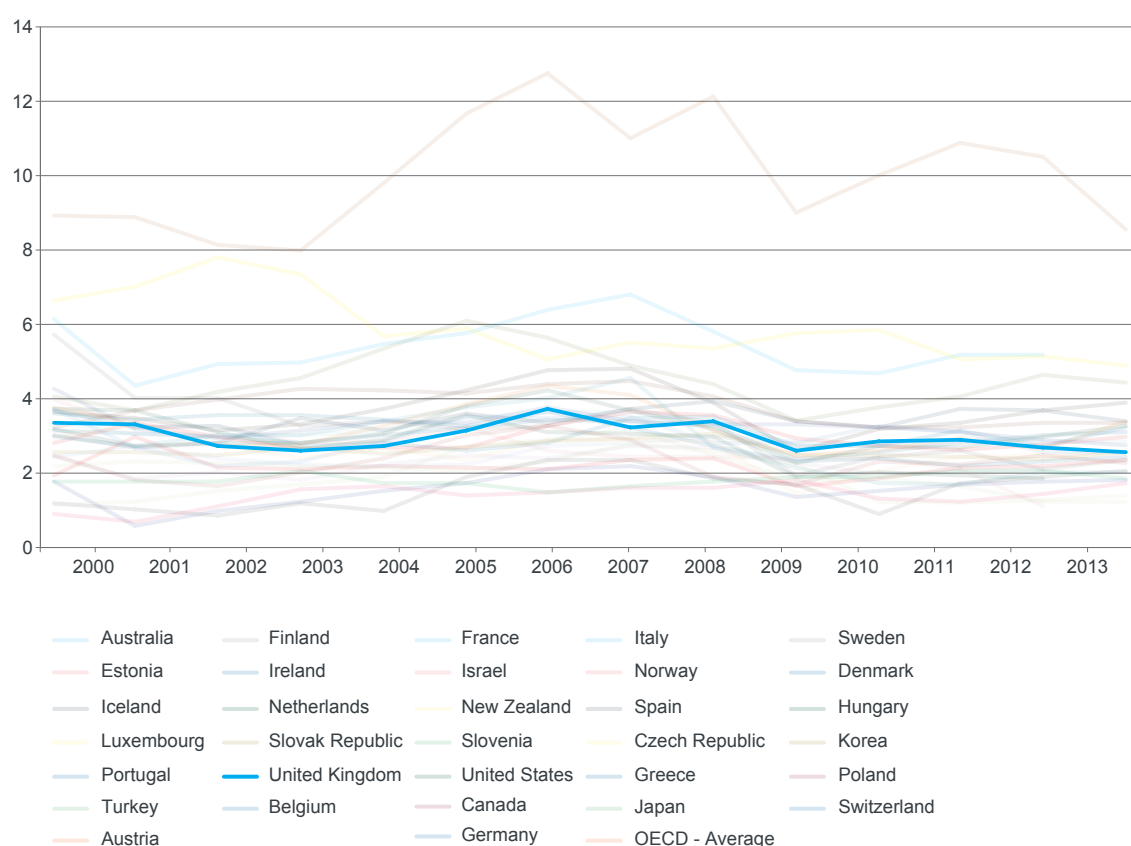
⁹² UCL, 5 November 2014, 'Positive economic impact of UK immigration from the European Union: new evidence'.

⁹³ Census Information Scheme, September 2013, 'CIS2013-08 - Londoners born overseas, their age and year of arrival'. GLA Intelligence Unit.

Taxation

London is a net contributor to the UK Exchequer. It generates more tax revenue than is required to pay for the public services provided in the capital. In fact it has been recently estimated in the year 2013/14 London had a fiscal surplus of £34 billion⁹⁴. When examining the international competitiveness of London's taxation environment it is necessary to compare how UK taxation policy relates to the taxation policy in other countries. This is because London's taxation level is generally set at the national level. Figure 3.11, below, examines the tax on corporate profits in a number of OECD countries over time. As can be seen UK taxes on corporate profits, although not the lowest of the examined countries, appear to be relatively competitive.

Figure 3.11: Tax on corporate profits (total, % of GDP, 2000 – 2014)



Source: OECD⁹⁵

⁹⁴ CEBR, November 2014, 'London's Finances and Revenues.' City of London Corporation.

⁹⁵ See: <https://data.oecd.org/tax/tax-on-corporate-profits.htm#indicator-chart>

While Table 3.5 shows the history of the highest corporation tax rates in selected countries over time, with Figure 3.12 showing how the UK ranked in relation to corporation tax in 2014. As can be observed from both of these, although not the lowest destination for corporation tax, the UK ranks well in a global context. In 2015, it had the lowest corporation tax rate of the G7 countries, while competitors for London's position as a financial centre like Hong Kong, Singapore, and Switzerland had similar corporation tax rates. The UK's generally low taxation position for corporate profits is also highlighted by Figure B2 in Appendix B.

Table 3.5: Highest corporation tax rate in selected countries and area averages over time, 2006-2015 (ranked highest to lowest, 2015)⁹⁶

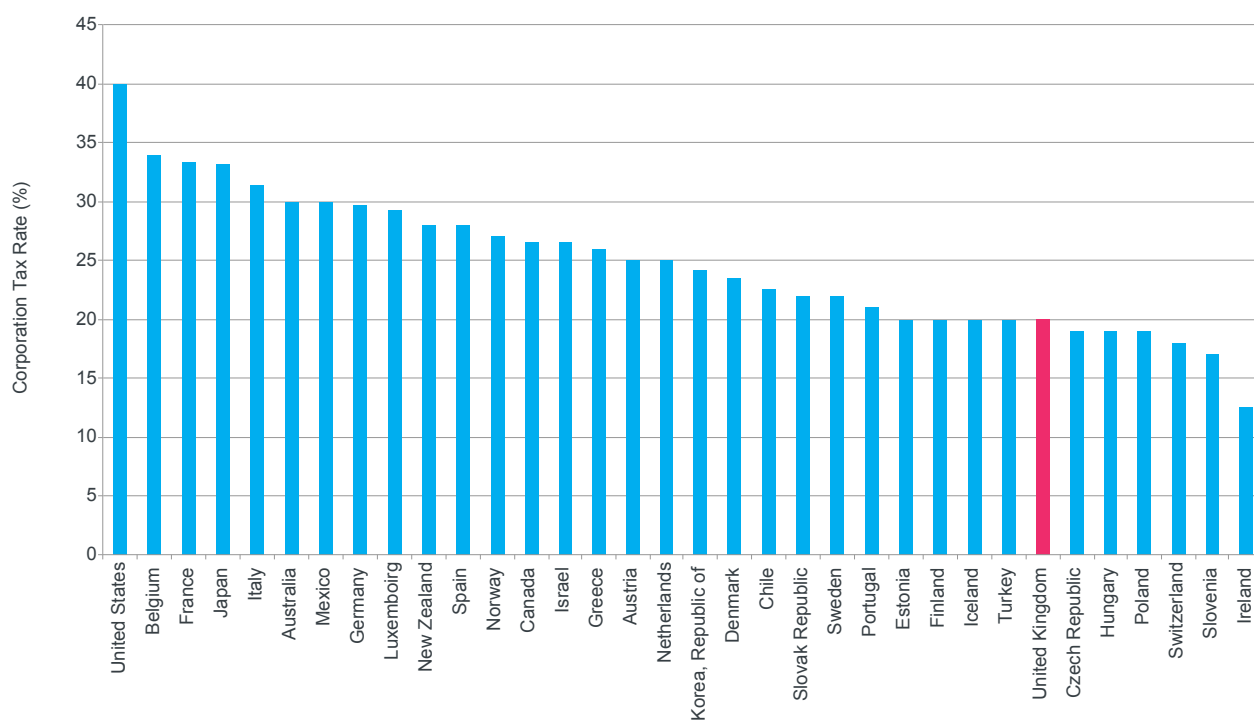
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
United Arab Emirates	55	55	55	55	55	55	55	55	55	55
United States	40	40	40	40	40	40	40	40	40	40
France	33.33	33.33	33.33	33.33	33.33	33.33	33.33	33.33	33.33	33.33
North America average	38.05	38.05	36.75	36.5	35.5	34	33	33	33.25	33.25
Japan	40.69	40.69	40.69	40.69	40.69	40.69	38.01	38.01	35.64	33.06
Italy	37.25	37.25	31.4	31.4	31.4	31.4	31.4	31.4	31.4	31.4
Germany	38.34	38.36	29.51	29.44	29.41	29.37	29.48	29.55	29.58	29.65
Africa average	30.82	30.56	28.65	28.75	28.38	28.55	29.02	28.29	27.85	28.03
Americas average	29.97	29.27	28.84	28.82	28.28	29.28	28.67	28.35	27.96	27.14
Oceania average	30.6	30.2	29.6	29.2	29	28.6	28.6	27	27	27
Latin America average	29.07	28.3	27.96	27.96	27.52	28.83	28.3	27.96	27.52	26.61
Canada	36.1	36.1	33.5	33	31	28	26	26	26.5	26.5
OECD average	27.67	27	25.99	25.64	25.7	25.4	25.15	25.32	24.11	24.77
Global average	27.5	26.95	26.1	25.38	24.69	24.5	24.4	23.71	23.64	23.68
EU average	24.83	23.97	23.17	23.11	22.93	22.7	22.51	22.75	21.34	22.15
Asia average	28.99	28.46	27.99	25.73	23.96	23.1	22.89	22.05	21.91	21.91
Europe average	23.7	22.99	21.95	21.64	21.46	20.81	20.42	20.6	19.68	20.24
United Kingdom	30	30	30	28	28	26	24	23	21	20
Switzerland	21.3	20.63	19.2	18.96	18.75	18.31	18.06	18.01	17.92	17.92
Singapore	20	20	18	18	17	17	17	17	17	17

⁹⁶ Note this table provides information on the highest rate of this tax and the actual rate may vary across different regions in certain countries etc.

Hong Kong SAR	17.5	17.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5
Ireland	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
Macau	12	12	12	12	12	12	12	12	12	12

Source: KPMG⁹⁷

Figure 3.12: Corporation Tax Rates, OECD Nations, 2015

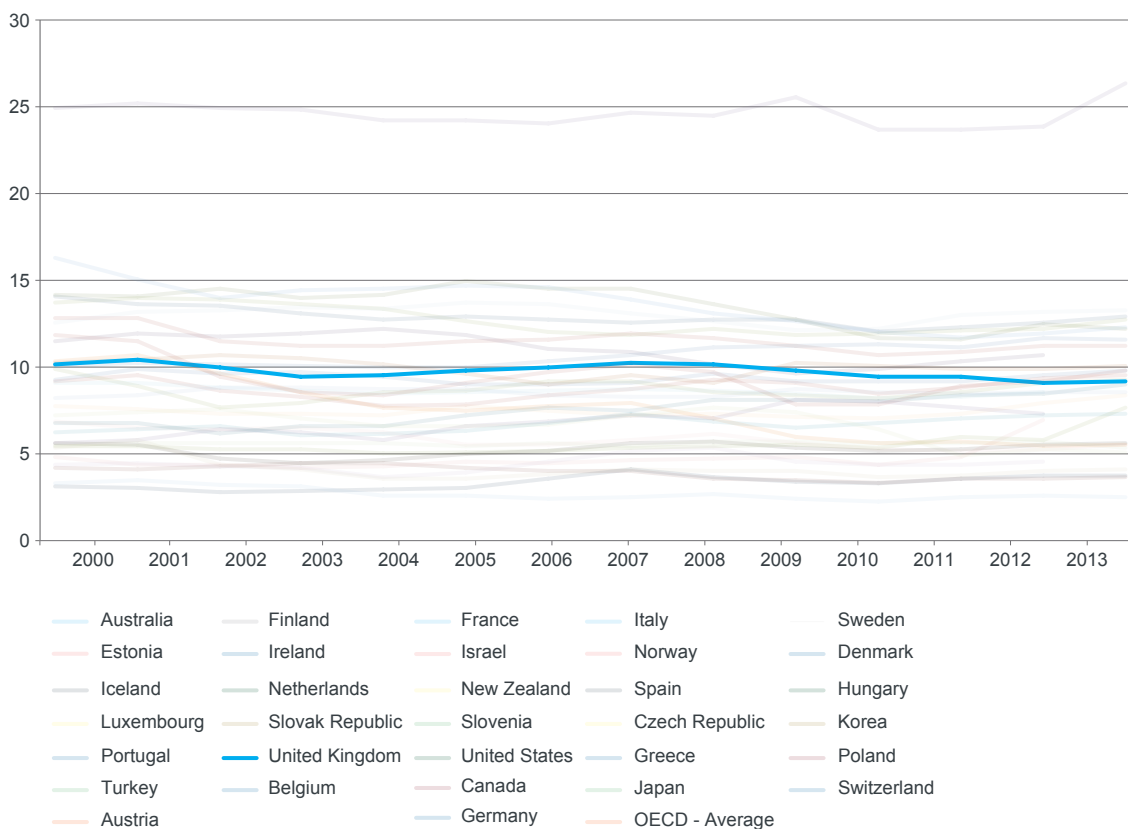


Source: 2015 Global Tax Rate Survey, KPMG

⁹⁷ See: <http://www.kpmg.com/global/en/services/tax/tax-tools-and-resources/pages/corporate-tax-rates-table.aspx>

However, as shown by Figure 3.13 the tax hit on personal incomes is somewhat closer to the higher end of the international spectrum. Indeed, if we look at the highest end of income tax as shown in Tables 3.6 and Figure 3.14 we can see that the UK ranks quite highly in the international league table, with most competitors cities for London's position as a financial centre being in jurisdictions with lower high end income tax rates. There is a perception that capital is likely to be more mobile than labour so a situation where UK taxation policy favours corporations over individuals may not be as damaging to the UK's and therefore London's international competitiveness as the reverse situation if this was the case. However, a high rate of income tax on high earners who may well be more mobile than average may mean this argument may hold less weight than many may at first think it does.

Figure 3.13: Tax on personal income (total, % of GDP, 2000 – 2013)



Source: OECD⁹⁸

⁹⁸ See: <https://data.oecd.org/tax/tax-on-personal-income.htm#indicator-chart>

Table 3.6: Highest income tax rate in selected countries and area averages over time, 2006-2015 (ranked highest to lowest on 2015)⁹⁹

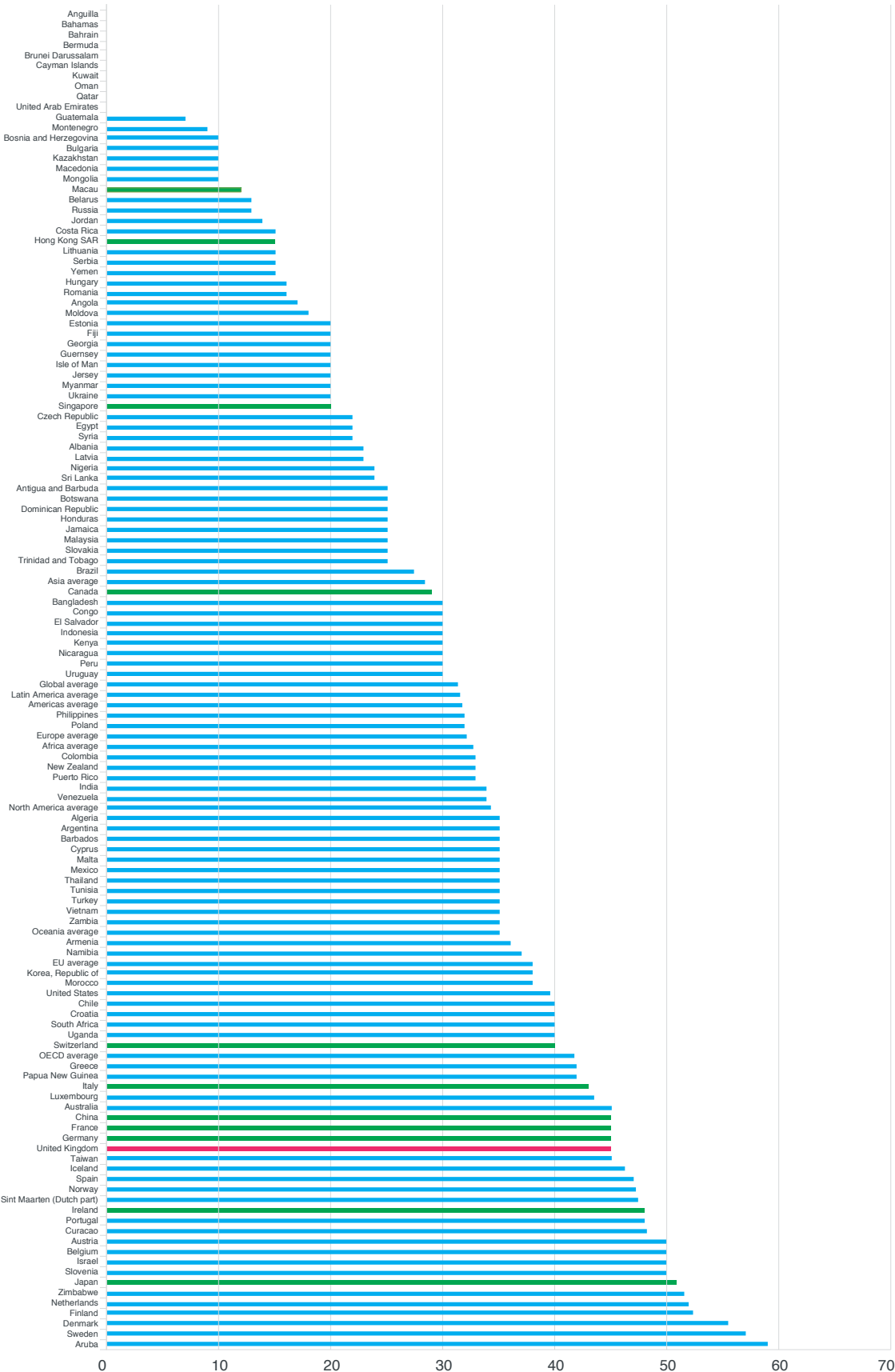
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Japan	50	50	50	50	50	50	50	50.84	50.84	50.84
Ireland	42	41	41	46	47	48	48	48	48	48
Germany	42	45	45	45	45	45	45	45	45	45
United Kingdom	40	40	40	40	50	50	50	45	45	45
France	40	40	40	40	41	41	45	45	45	45
Italy	43	43	43	43	43	43	43	43	43	43
OECD average	41.88	41.44	40.39	40.26	40.76	40.4	40.88	41.78	41.78	41.68
Switzerland	40.4	40.4	40	40	40	40	40	40	40	40
Oceania average	40.5	39.25	39.25	39	38.38	37.75	37.75	33.4	33.4	35
United States	35	35	35	35	35	35	35	39.6	39.6	39.6
EU average	39.9	39.32	37.56	37.03	37.3	37.09	37.46	38.37	38.38	37.94
North America average	32	32	32	32	32	32	32	34.3	34.3	34.3
Americas average	31.63	30.85	31.38	31.3	31.86	31.3	31.76	31.48	31.34	31.78
Europe average	35.62	35.04	33.49	33.15	33.62	33.4	33.66	32.74	32.7	32.19
Latin America average	31.58	30.7	31.3	31.22	31.84	31.22	31.73	31.25	31.08	31.55
Africa average	29.73	28.95	27.81	26.92	27.09	26.85	28.53	31.41	32.09	31.78
Global average	32.68	31.96	31.44	30.96	31.25	30.85	31.34	30.99	31.12	31.38
Canada	29	29	29	29	29	29	29	29	29	29
Asia average	29.04	28.2	28.64	27.96	27.96	27.52	27.96	27.07	27.24	28.38
Singapore	20	20	20	20	20	20	20	20	20	20
Hong Kong SAR	16	16	15	15	15	15	15	15	15	15
Macau	12	12	12	12	12	12	12	12	12	12
United Arab Emirates	0	0	0	0	0	0	0	0	0	0

Source: KPMG¹⁰⁰

⁹⁹ Note this table provides information on the highest rate of this tax and the actual rate may vary across different regions in certain countries etc.

¹⁰⁰ See: <http://www.kpmg.com/Global/en/services/Tax/tax-tools-and-resources/Pages/individual-income-tax-rates-table.aspx>

Figure 3.14: Top rate of income tax in selected countries in 2015¹⁰¹

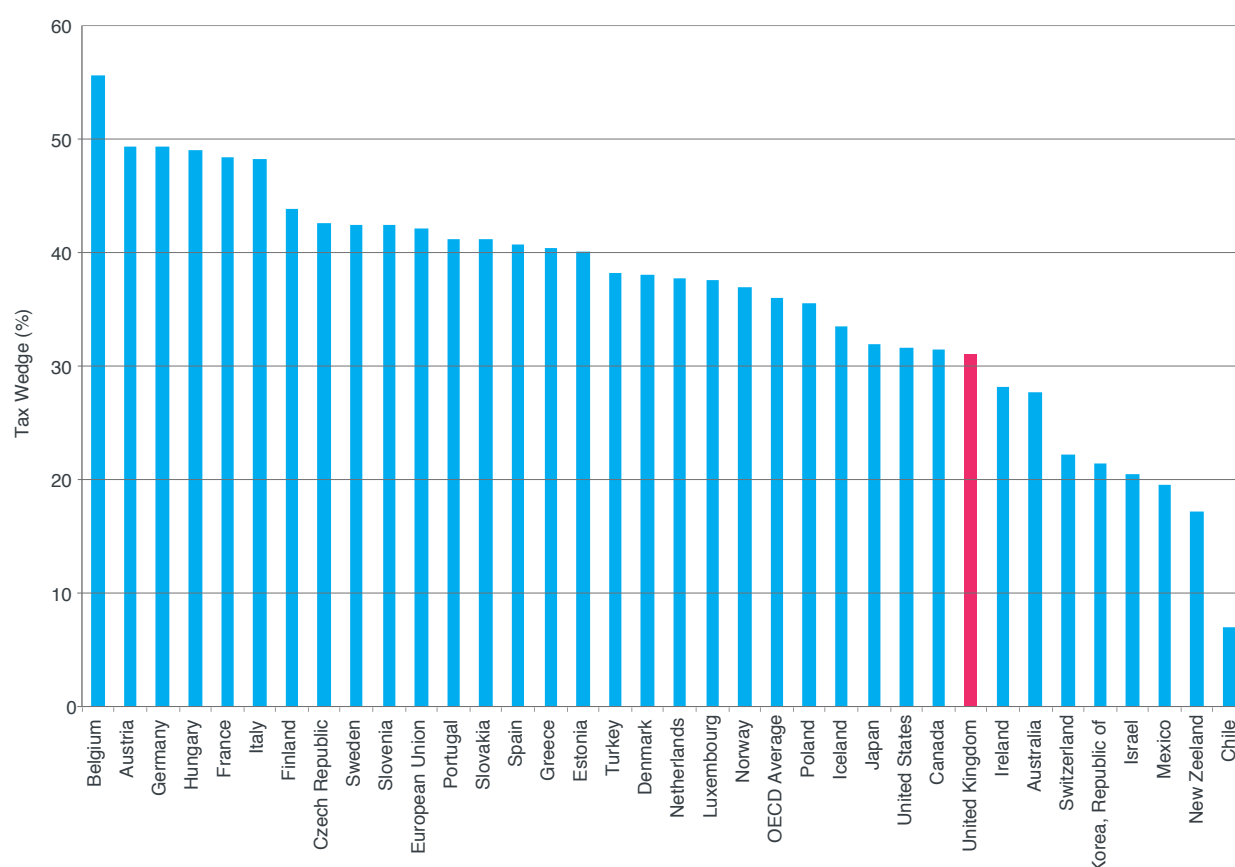


Source: KPMG

¹⁰¹ Not all country names are shown in the diagram.

Heavy costs falling on firms for employing labour would hamper London's international competitiveness, however as can be observed from Figure 3.15 the tax wedge¹⁰² on employing labour in the UK is among one of the lower ones in the OECD.

Figure 3.15: Tax wedge for OECD countries, 2014



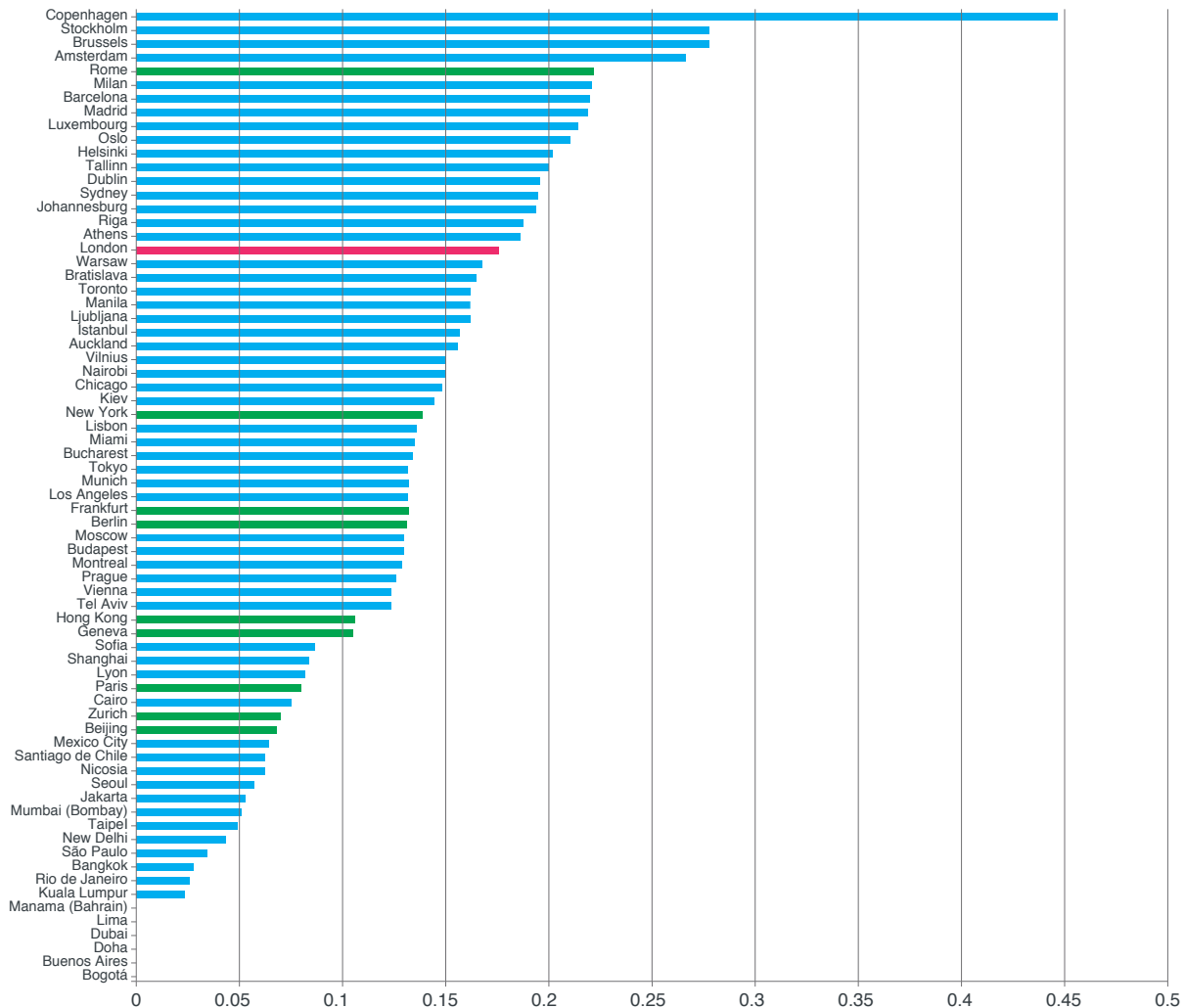
Source: OECD¹⁰³

However, Figure B3 in Appendix B does indicate the UK ranks highly internationally for central government tax take as a percentage of GDP, although this in part reflects the highly centralised tax system in the UK compared to other countries¹⁰⁴. Finally, Figure 3.16 shows income tax as a percentage of gross wages in a number of world cities. As can be seen, Figure 3.16 indicates that, although not the lowest ranked city, London's situation with respect to these cities is hardly an outlier, although competitors such as Hong Kong and New York do have lower income taxes which may make them more attractive to workers.

¹⁰² The OECD notes: "tax wedge is defined as the ratio between the amount of taxes paid by an average single worker (a single person at 100% of average earnings) without children and the corresponding total labour cost for the employer. The average tax wedge measures the extent to which tax on labour income discourages employment. This indicator is measured in percentage of labour cost."

¹⁰³ See: <https://data.oecd.org/tax/tax-wedge.htm>

¹⁰⁴ Details on this can be found in: Greater London Authority, May 2013, 'Raising the capital: The report of the London Finance Commission'.

Figure 3.16: Income tax in selected world cities (in % of gross wages)¹⁰⁵Source: UBS¹⁰⁶

Labour market regulation

Strict labour regulation could also dampen London's appeal to international business, but Table 3.7 shows that compared to most of its major international competitors the strictness of employment protection legislation in the UK is relatively light. Thus although the environment is somewhat more tight than that seen in the US, compared to other EU nations employment regulation in the UK is the least stringent.

¹⁰⁵ UBS notes: "we collected tax and social security information using PwC's 'Worldwide Tax Summaries', and corroborated our results with survey participants and other sources. Taxes were averaged for each profession, weighted and then calculated as a percentage".

¹⁰⁶ UBS, September 2015, 'Prices and earnings – Edition 2015: Do I earn enough for the life I want?'.

Table 3.7: Strictness of employment protection legislation for selected countries, regular employment, 1990 – 2013, range 0 to 6 (a higher score represents stricter regulation)¹⁰⁷

	1990	1995	2000	2005	2007	2008	2009	2010	2011	2012	2013
Australia	1.17	1.17	1.42	1.42	1.17	1.17	1.17	1.67	1.67	1.67	1.67
Austria	2.75	2.75	2.75	2.37	2.37	2.37	2.37	2.37	2.37	2.37	2.37
Belgium	1.76	1.76	1.76	1.81	1.81	1.81	1.81	2.00	2.00	1.81	1.81
Canada	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Czech Republic	..	3.31	3.31	3.31	3.05	3.05	3.05	3.05	3.05	2.92	2.92
Denmark	2.18	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.20	2.20	2.20
Finland	2.79	2.45	2.31	2.17	2.17	2.17	2.17	2.17	2.17	2.17	2.17
France	2.34	2.34	2.34	2.47	2.47	2.47	2.38	2.38	2.38	2.38	2.38
Germany	2.58	2.68	2.68	2.87	2.87	2.87	2.87	2.87	2.87	2.87	2.87
Greece	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.17	2.17	2.12
Hungary	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.59
Ireland	1.44	1.44	1.44	1.44	1.27	1.27	1.27	1.27	1.27	1.40	1.40
Italy	2.76	2.76	2.76	2.76	2.76	2.76	2.76	2.76	2.76	2.76	2.51
Japan	1.70	1.70	1.70	1.70	1.37	1.37	1.37	1.37	1.37	1.37	1.37
Korea	3.04	3.04	2.37	2.37	2.37	2.37	2.37	2.37	2.37	2.37	2.37
Mexico	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.03
Netherlands	3.04	2.84	2.88	2.88	2.88	2.88	2.82	2.82	2.82	2.82	2.82
New Zealand	1.24	1.24	1.24	1.56	1.56	1.56	1.56	1.56	1.56	1.39	1.39
Norway	2.33	2.33	2.33	2.33	2.33	2.33	2.33	2.33	2.33	2.33	2.33
Poland	2.23	2.23	2.23	2.23	2.23	2.23	2.23	2.23	2.23	2.23	2.23
Portugal	4.83	4.58	4.58	4.42	4.42	4.42	4.42	4.13	4.13	3.56	3.18
Slovak Republic	..	2.47	2.47	2.22	2.22	2.22	2.22	2.22	2.22	1.71	1.84
Spain	3.55	2.36	2.36	2.36	2.36	2.36	2.36	2.36	2.21	2.21	2.05
Sweden	2.80	2.80	2.65	2.61	2.61	2.61	2.61	2.61	2.61	2.61	2.61
Switzerland	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60
Turkey	2.39	2.39	2.39	2.31	2.31	2.31	2.31	2.31	2.31	2.31	2.31
United Kingdom	1.03	1.03	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.03
United States	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
China	..	..	..	..	..	3.26	3.26	3.26	3.26	3.26	..
India	..	..	..	..	..	3.29	3.29	3.29	3.29	3.29	..
OECD countries	..	..	..	..	..	2.17	2.16	2.15	2.13	2.08	2.04

Source: OECD

¹⁰⁷ The OECD notes that: "the dataset contains the indicator of strictness of regulation of individual dismissal of employees on regular/indefinite contracts. The OECD indicators of employment protection are synthetic indicators of the strictness of regulation on dismissals and the use of temporary contracts. For each year, indicators refer to regulation in force on the 1st of January. Data range from 0 to 6 with higher scores representing stricter regulation".

Access to market

London is one of the largest cities in Europe¹⁰⁸. London's large domestic population provides both a deep source of labour and demand for goods and services produced here. Further, 99 per cent of the world's business activity takes place in locations in time zones that overlap with London's working day (more than any other city in the world). While London is also ranked highly internationally for ease of doing business¹⁰⁹ and is a global centre for a number of different industries as was highlighted in Chapter 3.

London's attractiveness to people and business

London is the global headquarters for a number of firms (193), with it ranking third behind Tokyo (613) and New York (217) as a top city for global headquarters¹¹⁰. This will be expanded upon in the next chapter. Further, London's image and brand makes it highly attractive to individuals. This is highlighted by London being ranked first overall in the bi-annual Anholt-GfK City Brands IndexSM, which measures the power and appeal of each city's brand image¹¹¹. Further, in the index London ranked first in the category 'Fit In With Culture', which considers cities where visitors can "find people who appreciate my culture and with whom I could easily fit in". London is also attractive to workers due to the relatively high average pay that is attainable within the Capital as shown by Figure 3.17 which shows the gap between average pay over a number of years in London and the UK. Table 3.8 provides data on average annual wages for OECD countries in 2014 US\$ purchasing power parity (PPP) terms, to help put these figures into an international context.

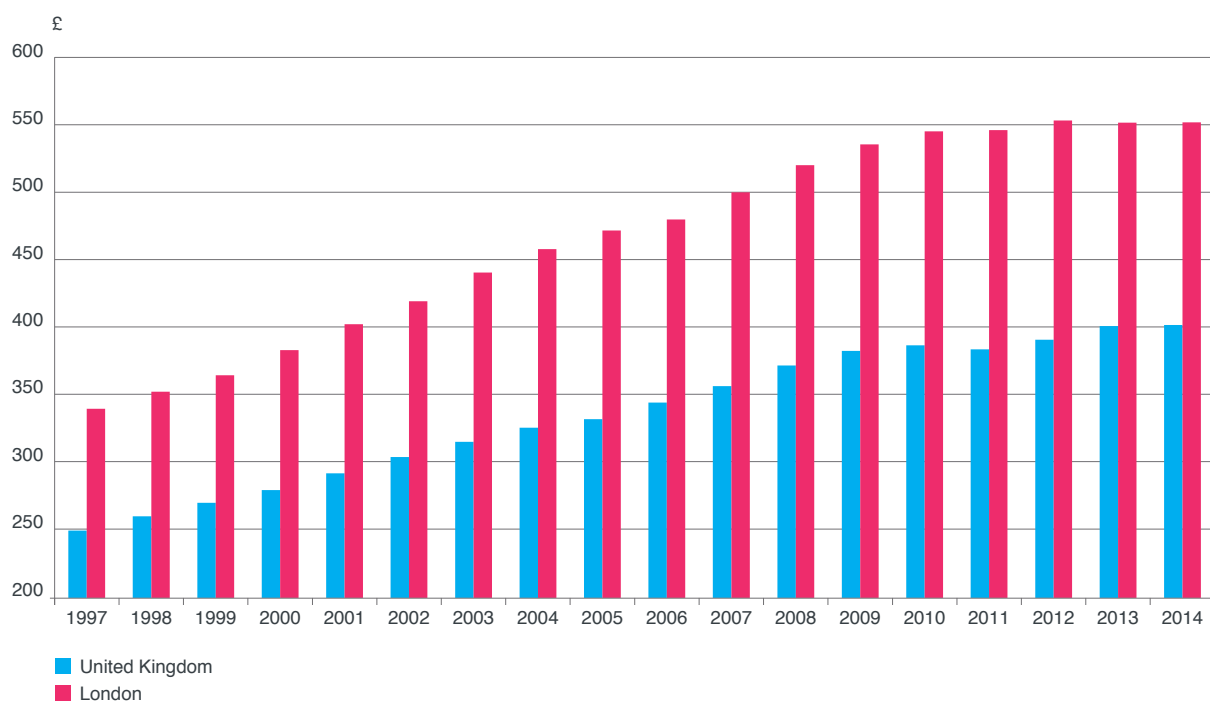
¹⁰⁸ London and Paris are the largest cities in Europe based on population measures. Determining which the largest city is depends on how the city boundaries are defined.

¹⁰⁹ Price Waterhouse Cooper, 2014, 'Cities of Opportunity 6'.

¹¹⁰ London First, 2015, 'London 2036: An agenda for jobs and growth'. London Enterprise Panel.

¹¹¹ The study gives a holistic perspective of each city, looking at six key dimensions: Presence (the city's international status and standing), Place (its physical aspect), Pre-requisites (basic requirements, such as affordable accommodation and the standard of public amenities), People, Pulse (interesting things to do) and Potential (the economic and educational opportunities). Anholt, S. and GfK, 2013, 'Anholt-GfK City Brands IndexSM'.

Figure 3.17: Median gross weekly earnings, 1997-2014
(Excluding overtime, full-time employees, £ per week)



Source: ONS, Annual Survey of Hours and Earnings

**Table 3.8: Average annual wages in selected countries in 2012, 2013 and 2014
(2014 USD PPPs and 2014 constant prices, countries ranked on 2014 value)**

	2012	2013	2014
Luxembourg	58,330	60,214	61,511
United States	56,735	56,811	57,139
Switzerland	55,540	56,461	57,082
Ireland	52,645	52,602	53,286
Norway	50,801	51,446	51,718
Australia	52,229	51,374	51,148
Netherlands	51,156	51,357	51,003
Denmark	48,901	48,761	49,589
Canada	46,902	47,794	48,164
Belgium	47,682	48,102	48,093
Austria	45,733	45,660	45,988
Germany	42,893	43,326	43,872
United Kingdom	41,726	41,494	41,659
Sweden	40,165	40,447	40,994
France	40,258	40,530	40,828
Finland	40,968	40,736	40,742
Korea	36,173	36,698	36,653
Spain	35,994	36,174	36,013
Japan	36,296	36,481	35,672
Italy	34,491	34,476	34,744
Slovenia	32,830	33,269	33,068
Israel	29,316	29,361	29,635
Greece	27,584	26,145	26,436
Portugal	23,940	24,503	23,977
Poland	23,140	23,571	23,649
Slovak Republic	20,966	21,124	22,151
Hungary	21,212	21,033	21,399
Czech Republic	21,031	20,660	21,185
Estonia	18,871	19,453	21,020
Mexico	12,708	12,952	12,850

Source: OECD¹¹²¹¹² See: <http://stats.oecd.org//Index.aspx?QueryId=64115#>

Although higher wages are attractive to staff, higher staffing and office costs can be a deterrent for businesses. This could be a concern given that London has been ranked first in Savills live/work index¹¹³ making it the most expensive in the world¹¹⁴. However, looking just at individuals' gross pay, Table 3.9 shows that although London's pay is high by international standards the cost of workers in other world cities is higher (as was the case for the UK as a whole as shown in Table 3.8).

Table 3.9: Wage levels in selected world cities¹¹⁵ (Index New York = 100)¹¹⁶

Rank	City	Gross	Net	Rank	City	Gross	Net	Rank	City	Gross	Net
1	Zurich	131.3	141.8	25	Paris	62.8	67.1	49	Santiago de Chile	23.1	25.1
2	Geneva	130.1	135.2	26	Rome	60	54.2	50	Buenos Aires	22.6	26.3
3	Luxembourg	106.4	97.1	27	Nicosia	59.1	64.4	51	Vilnius	21.5	21.2
4	New York City	100	100	28	Milan	58.7	53.1	52	Moscow	21.3	21.5
5	Miami	92.4	92.9	29	Lyon	58.6	62.8	53	Prague	20	20.3
6	Copenhagen	92.2	56.8	30	Barcelona	51.7	46.8	54	Riga	18.1	17.1
7	Sydney	89.8	83.9	31	Madrid	50.9	46.2	55	Shanghai	18.1	19.2
8	Oslo	87.7	80.4	32	Hong Kong	49.4	51.3	56	Kuala Lumpur	17.8	20.2
9	Los Angeles	87.5	88.2	33	Tel Aviv	46.5	47.3	57	Bogotá	17.5	20.3
10	Chicago	85.2	84.5	34	Seoul	45.9	50.2	58	Bangkok	16.8	18.9
11	Montreal	77.4	78.2	35	Manama	45.7	53.1	59	Lima	16.3	18.9
12	Stockholm	76	63.7	36	Dubai	40.4	46.9	60	Budapest	15.8	16
13	London	75.5	72.3	37	Taipei	35.1	38.8	61	Bucharest	14.1	14.2
14	Brussels	72.8	61.1	38	São Paulo	34.7	38.8	62	Beijing	13.4	14.5
15	Toronto	71.4	69.5	39	Ljubljana	33.6	32.7	63	Mexico City	12.2	13
16	Tokyo	70.1	66.5	40	Johannesburg	32.8	30.7	64	Sofia	11.4	12.1
17	Auckland	70	68.6	41	Doha	32.2	37.4	65	Manila	9.4	9.2
18	Dublin	68.8	64.3	42	Lisbon	31.9	32	66	Mumbai	8.3	9.1
19	Vienna	68.5	69.7	43	Athens	29.8	28.2	67	Cairo	8.2	8.8
20	Helsinki	67.8	62.8	44	Bratislava	28.4	27.6	68	New Delhi	7.6	8.5
21	Munich	67.7	68.2	45	Rio de Janeiro	26.8	30.3	69	Nairobi	6.5	6.5
22	Frankfurt	66.6	67.1	46	Istanbul	26.5	26	70	Jakarta	6.2	6.8
23	Amsterdam	65.3	53.3	47	Tallinn	26.1	24.2	71	Kiev	6.1	6.1
24	Berlin	64	64.5	48	Warsaw	23.2	22.4				

Source: UBS¹¹⁷

¹¹³ Ranking the cost of renting residential and commercial space in 12 global cities.

¹¹⁴ Savills, 2015, '12 Cities: investing and occupying world city real estate'.

¹¹⁵ This survey was published in 2015.

¹¹⁶ UBS notes: "gross hourly wages are calculated from the survey's gross annual earnings data divided by the annual number of working hours. Net hourly earnings are calculated by removing taxes, social security and other special deductions from gross annual income for each city, and dividing it by annual working hours. Hourly wages are weighted according to the distribution of our 15 professions."

¹¹⁷ UBS, September 2015, 'Prices and earnings – Edition 2015: Do I earn enough for the life I want?'.

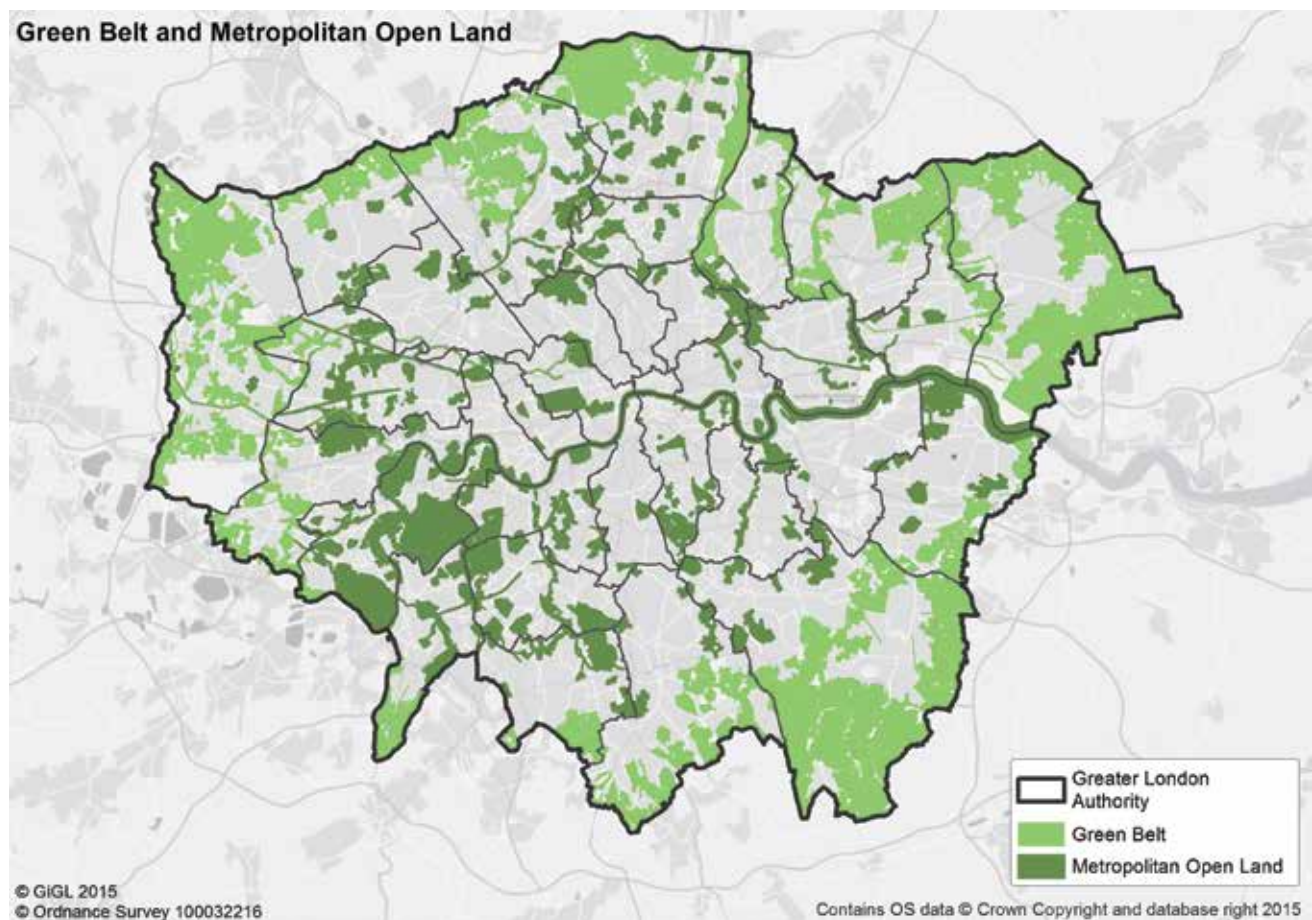
Culture and entertainment

London is world renowned for its culture and entertainment. ATKearney's Global Cities Index observed that "for those seeking cultural immersion, London is a must, with leading scores across three out of six metrics"¹¹⁸. Further details of London's cultural offer and how it compares to its international competitors is provided in Chapter 7.

Green Spaces

Green spaces help individuals unwind from the stresses of daily life and London has them in abundance. In fact parks and gardens, when combined with London's rivers and other green spaces – woodlands, meadows, grasslands, golf courses, sports pitches etc. – account for a large part of Greater London's land mass. This is shown in Map 3.3. Figure 3.18 indicates that London ranks favourably in this metric when compared to other world cities.

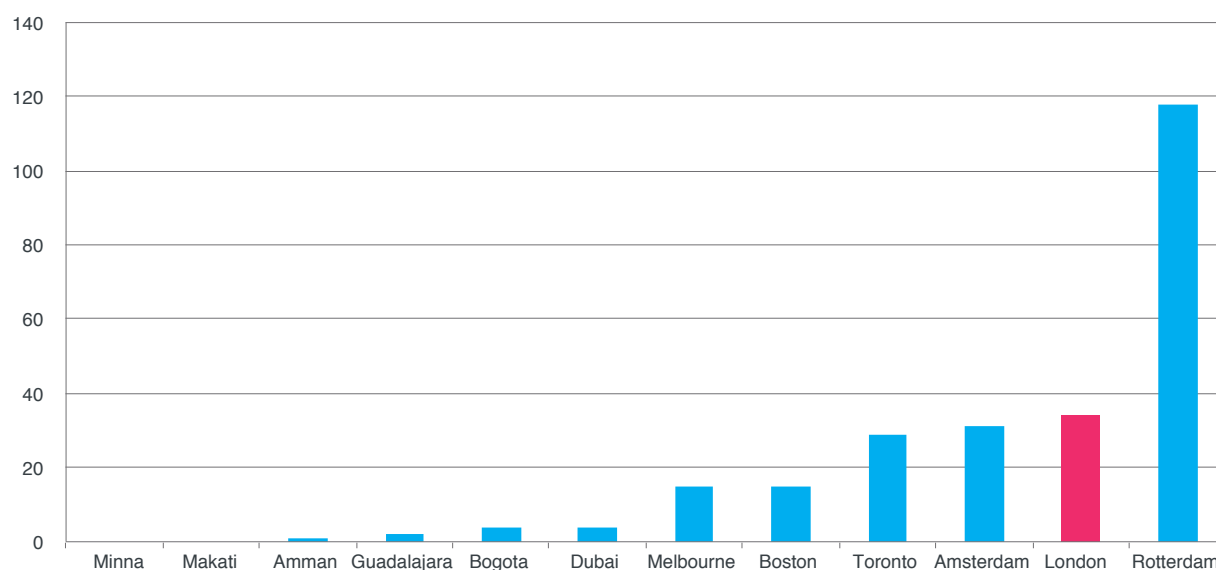
Map 3.3: Green space in London



Source: GLA Intelligence Unit

¹¹⁸ A.T. Kearney, 2014, 'Global Cities Index and Emerging Cities Outlook'.

Figure 3.18: Square metres of public outdoor recreation space per capita in selected world cities (2014 WCCD data submission)



Source: World Council on City Data: WCCD Open City Data Portal

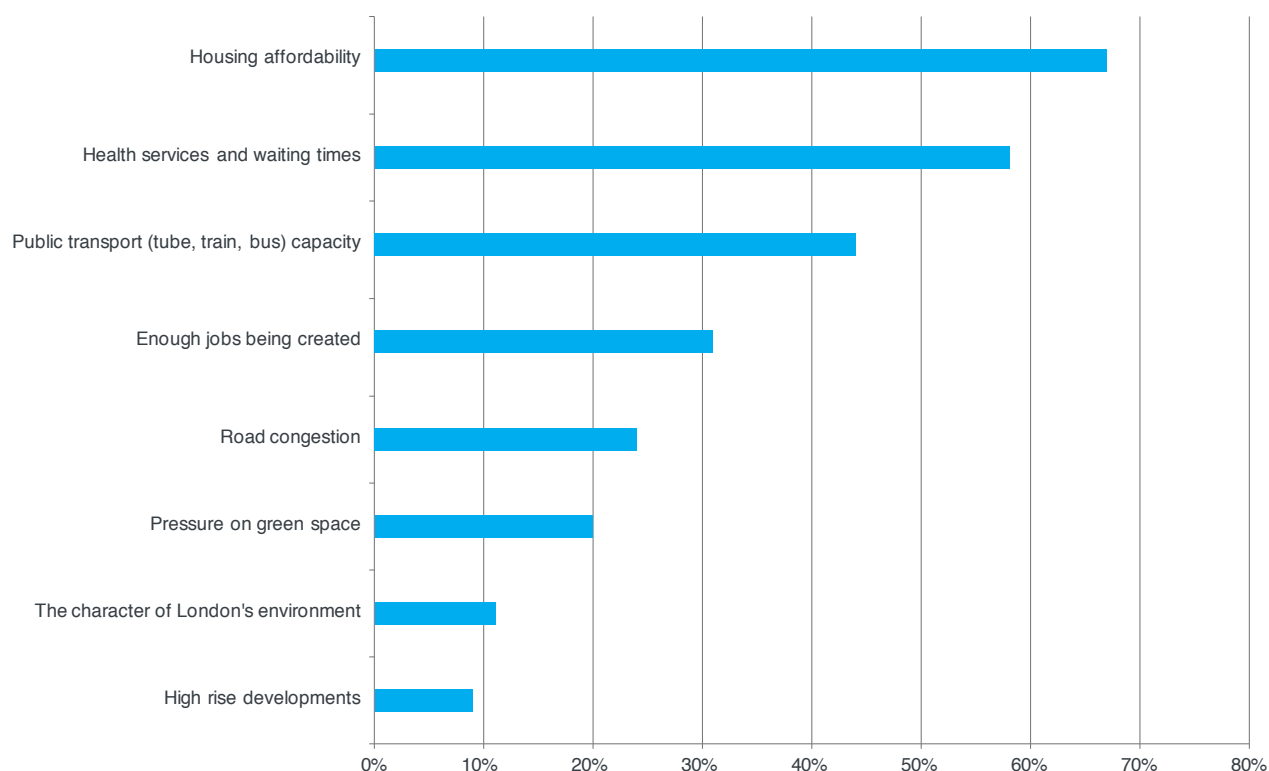
3.3 Risks to London's global competitiveness

Looking forward London is likely to remain an internationally competitive city. The Economist Intelligence Unit argued in its “Hot Spots 2025” index that “London ranks second overall in the Index (with New York coming out top). London ranks particularly well in terms of its financial maturity (joint first overall), physical capital (joint first) and global appeal (joint first). The city retains its role as the UK's and Europe's leading financial centre. Notably, London is the only city in the developed world that rises significantly in terms of its economic strength between 2012 and 2025”¹¹⁹.

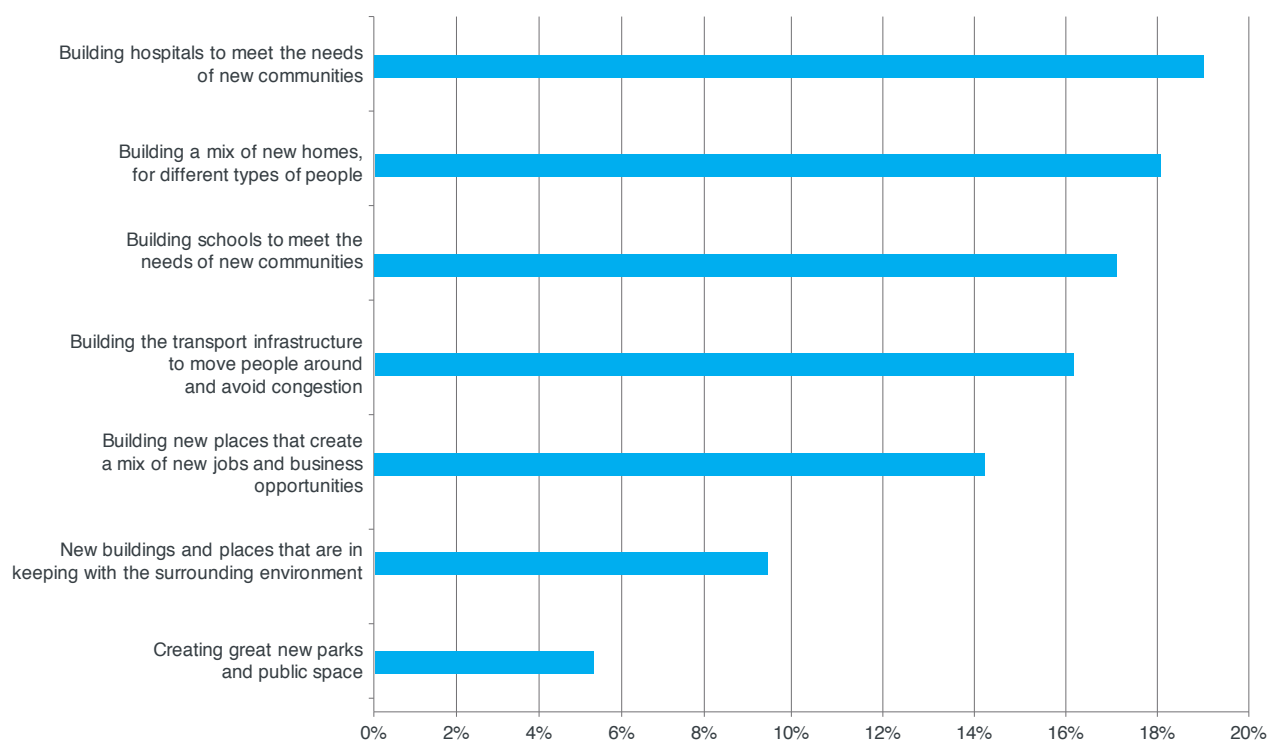
Still despite its attractiveness in a wide field of areas London faces a number of challenges if it is to maintain its position as a leading global centre over the coming years. To some extent, these challenges are the result of London's success in attracting both businesses and people. For example, more people and businesses in the city tend to place a strain on public amenities and lead to higher demand and congestion which tends to drive up prices for goods and services. International surveys have warned that these stresses are a risk to London's position. Thus PwC, although ranking London first in 2014 as a “city of opportunity”, observed that “London's performance in terms of cost and the environment could be better, with the city slipping to mid-table overall against its competitors on cost, sustainability and the environment”¹²⁰. Unease about the sustainability of London's growth was also raised in a recent survey of Londoner's which highlighted a number of areas of concern as shown in Figure 3.19, while Figure 3.20 highlights what Londoner's perceive are the Capital's needs for new development.

¹¹⁹ The Economist Intelligence Unit, 2013, ‘Hot spots 2025, benchmarking the future competitiveness of cities’. Citi.

¹²⁰ Price Waterhouse Cooper, 2014, ‘Cities of Opportunity 6’.

Figure 3.19: Londoners' top growth concerns

Source: GLA Intelligence Unit polling¹²¹

Figure 3.20: Londoners' needs from new development

Source: GLA Intelligence Unit polling¹²²

¹²¹ This poll was carried out in 2015.

¹²² As above.

The following sections will examine these risks to London's attractiveness in more detail.

Risks to London's business environment

London is a global financial centre employing 362,000 in 2013. This compares to a total of around 436,000¹²³ in New York. However, unlike New York, employment in financial services now stands at a higher level in London than the level seen before the financial crisis. Thus, while necessary, if financial regulation became too onerous this may significantly damage an important sector to London's economy in terms of both output and employment, with further knock on effects to other parts of the economy. The City of London Corporation has observed that "the concentration of the UK's financial services industry in London, with City and London financial services jobs accounting for 14 per cent and 34 per cent of total UK financial services employment respectively, means that UK and EU regulation of the financial services sector has a disproportionate impact on London's economy." This presents both an opportunity in terms of the growth of compliance roles and the increased importance of risk and regulatory functions within both financial and professional services, as well as a challenge in terms of ensuring regulation does not adversely impact London's competitiveness as a global business centre.

The cumulative impact of regulation on the financial services sector has clear implications for the labour market. Recruitment surveys highlight the continued demand for compliance and risk specialists as the regulatory framework at the UK and EU level for financial services continues to strengthen. While this trend has increased employment in activities auxiliary to financial services by 7,000 across London. However increased regulation also has the potential to restrict growth and limit productivity across financial and professional services sectors.

Financial market regulation at the national, European and international level has the potential to weaken London's competitiveness as a European and international financial centre. Regulation on incentive pay for bankers could reduce London's ability to attract the high-skilled workers necessary to meet the forecasted demand created from the expansion of high productivity industries. The proposed regulations on bank structure and the financial transaction tax have the potential to increase the transaction costs for firms located in the UK and increase the cost financial market activity. This could have significant implications for financial services firms, related professional services, and the range of other industries based in London, potentially reducing economic activity and employment in The City and wider London economy.

¹²³ Based on US Bureau of Labor Statistics data.

While financial and professional services are highly productive sectors that have contributed to the UK's productivity growth, the structural changes resulting from an increased level of regulation have affected these areas specifically, for example the increase in compliance staff while revenue generating activity such as investment banking has declined, and a reduction in chargeable hours in professional services. It has also been more widely noted that retention of skilled staff during the recession, as well as increasing employment numbers now, will likely have "depressed headline productivity figures". They project that "the productivity of London's professional and financial services industries is forecast to grow at 14 per cent and 29 per cent respectively from 2014 to 2025." These projections assume that regulation does not constrain productivity and output growth in London and the UK.

Further, if the financial services sector were to benefit from a supportive market and regulatory environment, the sector could add £25 billion to London's output by 2020, and as many as 218,000 more jobs across the UK economy, with 47,000 additional jobs in the financial services sector by 2020.

This highlights the potential for well-planned regulation that enables the growth of the financial services sector at a sustainable rate to have a positive impact on the economy. The impact would boost the projections for the City, London and the UK's employment and output, whilst increasing the productivity and increasing the City and London's competitiveness as a location for global financial and professional services"¹²⁴.

Looking at the impact of financial regulation in the EU as a whole has also highlighted the dampening impact that a challenging regulatory environment could have on financial service sector and wider economic growth. The City of London Corporation found that under less challenging regulation the EU financial services sector "grows at 1.9 per cent (or 60 per cent of its pre-crisis growth rate), EU gross domestic product (GDP) grows by 1.8 per cent annually between 2015 and 2030. This compares to a pre-crisis growth rate of around 2.1 per cent per annum between 2000 and 2008". While under a more challenging regulatory environment "GDP grows by only 1.5 per cent per annum over the same period, reflecting the slower rate of growth in financial services"¹²⁵. Also, the possibility that regulation may drive business away from London should not be overlooked, with regulation in other countries, for example the Sarbanes-Oxley Act, having been blamed for driving business away from them¹²⁶.

¹²⁴ Centre for Cities and Cambridge Econometrics, June 2015, 'The future of the City of London's economy'. City of London Corporation.

¹²⁵ Price Waterhouse Cooper, May 2015, 'Where next Europe: the future of European financial services'. City of London Corporation.

¹²⁶ Piotroski, J. D., & Srinivasan, S., May 2008, 'Regulation and Bonding: The Sarbanes-Oxley Act and the Flow of International Listings'. Journal of Accounting Research.

While, the risks to London's financial sector from dissatisfaction with the bank levy, which has been raised from 0.05 per cent when introduced in 2011 to 0.21 per cent after 1 April 2015, although to then begin falling from 2016 to a rate of 0.1 per cent in 2021, should also be noted. This holds even though a number of countries have introduced a bank levy (and one is required under the terms of the EU's recovery and resolution directive). This is because a number have used it as regulatory fee, such as Germany, whereas the UK revenue has been used to support the domestic budget. Thus other countries levies have raised substantially less than the UK (with Germany's raising around a 10th of the revenue of the UK one) and may make them more attractive as a base for banks. This could hold even when the UK bank levy is reduced as an 8 per cent supplementary tax on banking sector profits (beyond the first £25 million of profit) is due to be introduced in January 2016.

Finally, risks associated with the "increasing attractiveness of competitor cities with superior physical, linguistic and cultural ties to emerging markets", "peers with more autonomy us[ing] activist policy (e.g., tax and regulation) to turn London's democratic responsibilities into a weakness" and "London's advanced knowledge economy [being] rendered less competitive by cities offering cheap talent and by automation replacing medium-skill jobs"¹²⁷ should not be ignored either.

¹²⁷ London First, 2015, 'London and its Global Position'. London Enterprise Panel.

Cost of doing business

As well as the costs associated with taxation etc. the cost of office space is a serious concern to businesses. This is especially the case with London where costs are particularly high, as shown by Table 3.10 which shows that in both 2013 and 2014 London had the most expensive office location in the world. It should be noted that other areas in London will be cheaper than the West End, thus for comparison purposes in 2012 while core West End rents were £996 per sq. m, Prime City rents stood at £592 per sq. m¹²⁸.

Table 3.10: Top 10 most expensive locations by country

2014 Rank	2013 Rank	Country	City	Location	Occupancy costs €/Sq. m/Year	Occupancy costs \$/Sq. ft/Year
1	1	United Kingdom	London	West End	2,344	264
2	2	Hong Kong	Hong Kong	CBD	1,636	184
3	5	United States	New York	Midtown (Madison/5 th Avenue)	1,162	131
4	6	Brazil	Rio de Janeiro	Zona Sul	1,150	129
5	7	India	New Delhi	Connaught Place	1,064	120
6	3	Russia	Moscow	CBD	1,055	119
7	4	Japan	Tokyo	CBD (5 Central Wards)	1,051	118
8	9	China	Beijing	CBD	926	104
9	10	Australia	Sydney	CBD	878	99
10	8	France	Paris	CBD	860	97

Source: Cushman & Wakefield¹²⁹

¹²⁸ Ramidus Consulting Limited with Roger Tym & Partners, September 2012, 'London Office Policy Review 2012'. Greater London Authority.

¹²⁹ Cushman & Wakefield, 4 March 2015, 'London cements position as world's most expensive office market'.

While access to office space is also vital and a concern for London as shown by Table 3.11 which shows Knight Frank data on historic and forecast office vacancy rates for various global cities and shows that in 2013 London had the 5th lowest vacancy rate of examined cities with this forecast to jump to second lowest in 2019.

Table 3.11: Office vacancy rate, historic and forecast 2006 - 2019 (per cent of total built stock, ranked on 2013)

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Shanghai	8.2	5.5	13.5	16.7	12.0	6.6	5.1	4.3	5.9	6.4	5.9	5.6	5.4	5.1
Hong Kong	7.7	8.9	8.4	10.3	8.0	6.5	6.0	4.9	5.2	5.3	5.0	4.8	4.6	4.5
San Francisco	9.3	8.1	11.6	14.8	14.3	9.3	7.4	6.0	5.9	5.8	5.7	5.5	5.5	5.7
Tokyo	2.7	2.0	3.6	7.2	8.0	7.8	8.4	6.8	5.8	5.0	4.2	4.0	4.0	3.9
London	6.5	6.2	8.2	10.2	8.1	7.3	7.2	7.0	6.1	5.4	5.3	4.6	4.6	4.4
Paris	4.9	4.3	4.9	7.3	7.0	6.9	7.0	8.1	8.1	7.0	6.1	6.1	5.9	5.9
New York	5.9	5.0	6.7	8.3	8.6	7.8	7.9	8.9	8.4	8.0	7.8	7.7	7.5	7.4
Sydney	7.9	3.7	5.4	8.2	8.3	9.7	7.2	9.0	8.8	10.1	12.3	11.9	11.5	11.1
Singapore	10.3	7.3	8.8	12.1	12.1	11.3	9.4	9.9	10.3	9.8	9.3	8.8	8.4	7.7
Madrid	11.2	7.0	8.7	10.3	10.5	11.0	11.3	11.4	11.3	10.9	10.6	9.7	8.5	8.4
Frankfurt	16.7	14.2	13.7	14.3	14.4	13.5	12.1	11.4	11.4	10.8	11.3	10.7	10.3	10.0
Houston	15.0	11.9	14.1	16.5	16.3	16.1	14.4	14.2	14.0	13.9	14.2	14.4	14.3	14.1
Mexico City	11.1	6.8	6.1	7.7	11.3	11.4	10.4	14.6	14.3	18.5	19.0	15.0	12.0	12.0
Washington	10.5	10.0	11.9	14.1	13.7	14.3	14.6	15.4	15.8	15.7	15.4	15.1	14.9	14.8
Mumbai	4.9	2.9	4.3	12.2	14.0	19.3	23.2	23.0	23.0	18.7	16.1	15.1	14.1	13.5

Source: Knight Frank¹³⁰

¹³⁰ Knight Frank, 2015, 'Global Cities Index 2015'.

Finally, poor infrastructure such as low broadband speeds could also dent London's attractiveness to business. With a recent survey finding that the City of London had slower broadband speeds than the Hong Kong Central Business District, Singapore, Paris, New York, Taipei, San Francisco, Los Angeles, Chicago, and Berlin (although download speeds in Hounslow and Croydon were found to be faster than in these last four cities)¹³¹.

Risks of attracting people to London

A further risk to business is in the ability to attract individuals to work in London. This is shown by London's generally poor rankings in quality of life surveys. For instance, Mercer although ranking London first in the UK, ranked it 40th of all cities it surveyed for its most recent quality of living report for cities around the world¹³². While the City of London Corporation has recently highlighted factors such as housing and transport infrastructure, aviation capacity, and availability of a skilled workforce as factors that could dampen the City's growth in coming years¹³³. Thus provided below is an examination of quality of life indicators that could dampen London's international competitiveness if current problems are not addressed or if London's standing on these indicators declined.

Housing

London requires a significant increase in its housing stock in order to meet a backlog in demand for housing as well as to cover projected population increases in coming years; with the GLA estimating that total annualised housing requirement between 2015/16 and 2034/35 is 48,841 new homes a year¹³⁴. This has also recently been highlighted by the City of London Corporation. It observed that "the City and London's ability to continue to expand is dependent on the availability of local labour, and ensuring London remains attractive to the best international talent. Property prices in London have increased at a rapid rate in recent years, reducing affordability for workers on lower or average incomes. This is largely attributed to supply-side issues in the housing market – supply is not sufficient to match demand for housing. London's inflated housing market could be damaging to business in the City if skilled workers are discouraged from living within a reasonable commuting distance from the City through unaffordable rents or house prices"¹³⁵.

¹³¹ London First, 2015, 'London 2036: An agenda for jobs and growth'. London Enterprise Panel.

¹³² Mercer, 4 March 2015, 'Vienna tops latest Quality of Living rankings'.

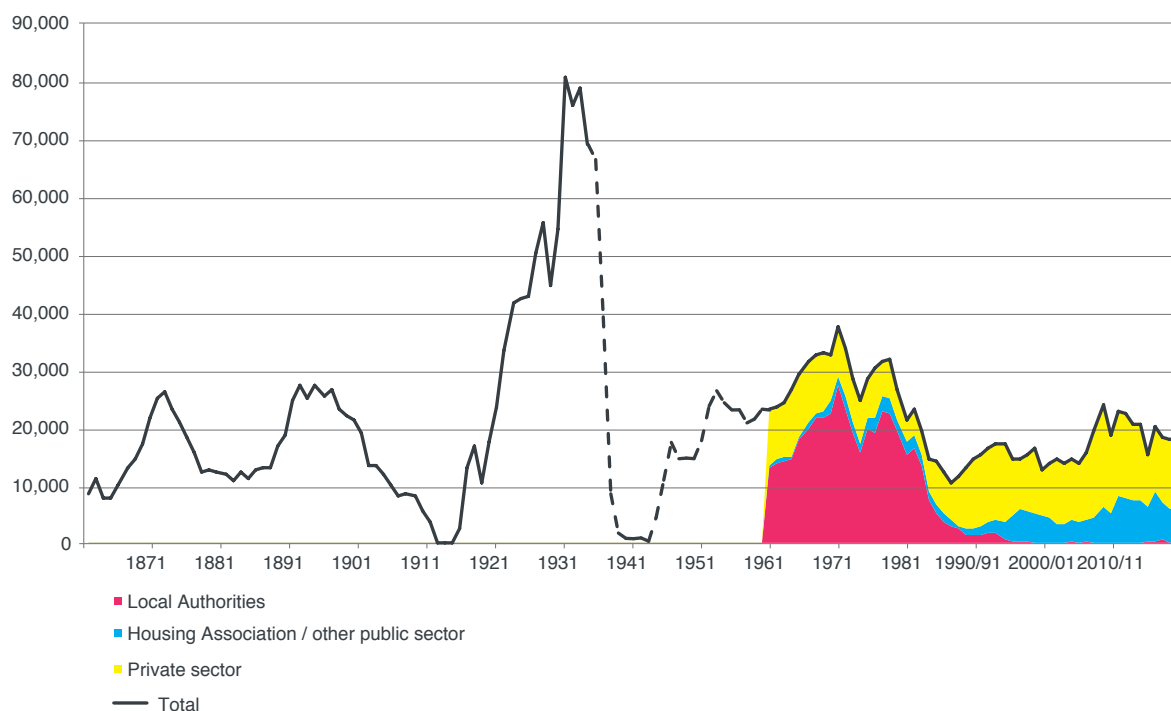
¹³³ Centre for Cities and Cambridge Econometrics, June 2015, 'The future of the City of London's economy'. City of London Corporation.

¹³⁴ Greater London Authority, January 2014, 'THE 2013 LONDON STRATEGIC HOUSING MARKET ASSESSMENT: Part of the evidence base for the Mayor's London Plan'.

¹³⁵ Centre for Cities and Cambridge Econometrics, June 2015, 'The future of the City of London's economy'. City of London Corporation.

However as Figure 3.21 shows gross new home builds over time in London have rarely been at a level that would meet this demand. In fact as can be observed from the graph current building levels are currently significantly below those required to meet London's housing needs (the red dotted line) and historically the house building level required to meet these needs has only been hit for a few years in the 1920s and 30s.

Figure 3.21: Gross new homes built in Greater London, 1871 to 2014/15



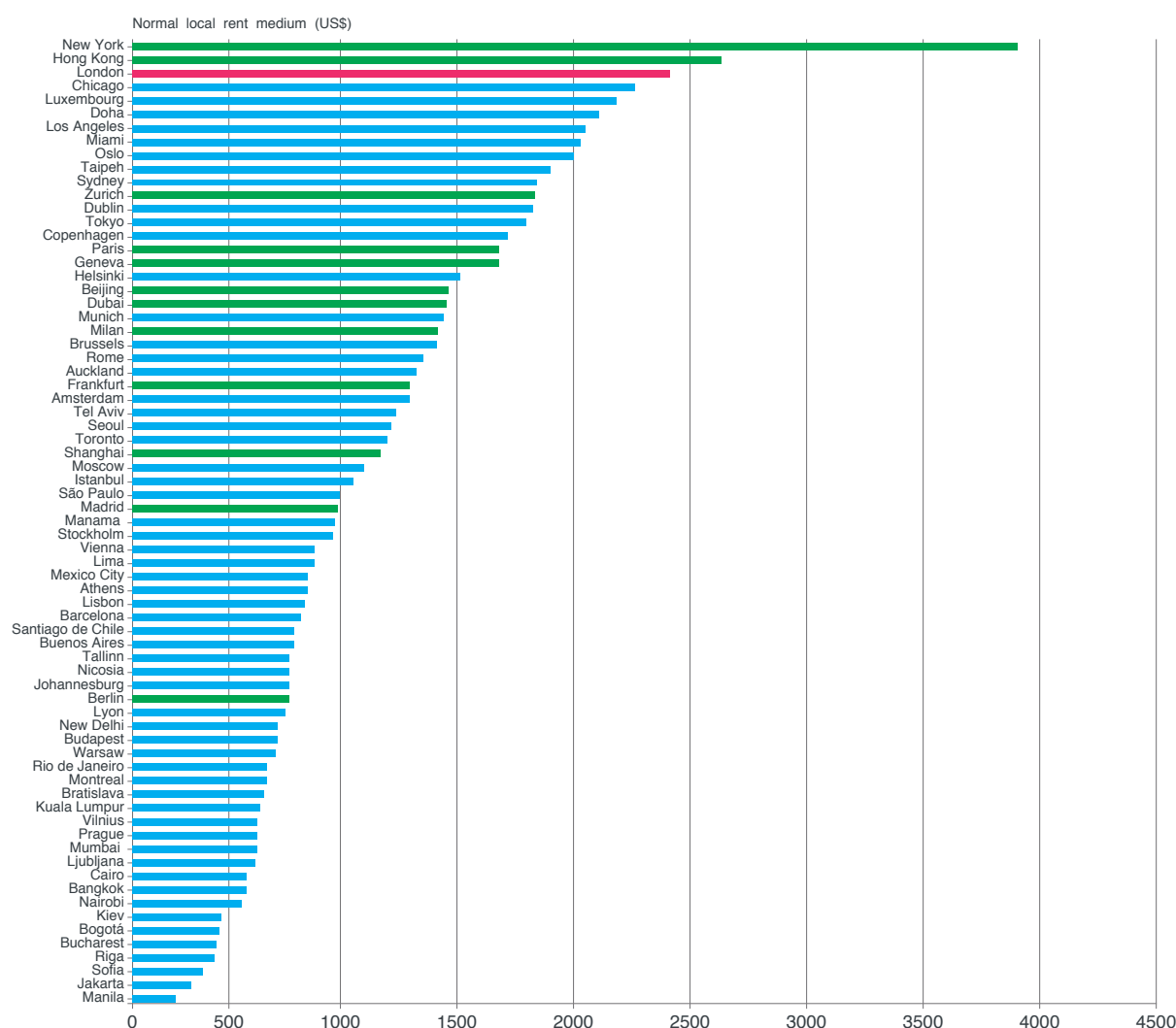
Source: GLA

The Institute for Fiscal Studies (IFS) when examining London's house prices in relation to the UK as a whole, perhaps unsurprisingly, found that "house prices in London are significantly higher than those in the rest of the country and have increased more rapidly in recent history". They added, "real house prices [have] increased more than threefold (by 247 per cent) in London from their trough in 1994–95 to their peak in 2007–08. They have also recovered more strongly than in the rest of the UK since the financial crisis"¹³⁶. They further found that the ratio of house prices to average earnings in London stood at an all-time high of over 10 in 2014 compared to just under 7 for the UK as a whole.

¹³⁶ Belfield, C., Chandler, D., & Joyce, R., February 2015, 'Housing: Trends in Prices, Costs and Tenure'. Election 2015: Briefing Note 4 – Institute for Fiscal Studies.

London's housing is also costly when compared to other world cities. This can be observed from Figure 3.22 and Table B1 in Appendix B which shows that the medium normal local rent in London is high by international standards with housing in only New York, and Hong Kong costing more. However, in terms of affordable housing London performs better than some of its competitors with 24 per cent of its housing classed as affordable, compared to 19 per cent for Boston, 7 per cent for Manhattan, and 6 per cent for New York City as a whole.

Figure 3.22: Normal local rent¹³⁷ costs in selected world cities (US\$¹³⁸)¹³⁹



Source: UBS¹⁴⁰

¹³⁷ UBS notes: "to estimate the worldwide costs of housing, we considered the prices for three different types of apartments. For two of these types, we standardized requirements to Western preferences, with a furnished two-room apartment and an unfurnished three-room apartment. We only looked at newly built apartments which with a bathroom and a kitchen. Prices included utilities (energy and water taxes), but not the use of a garage. To capture local standards, our survey asked for the price of an apartment of typical size, location, and amenities for the respective city. All three housing options were weighted equally."

¹³⁸ Weighted on a selected basket of goods.

¹³⁹ This survey was published in 2015.

¹⁴⁰ UBS, September 2015, 'Prices and earnings – Edition 2015: Do I earn enough for the life I want?'.

Cost of living

London is also a costly city to live in. This can be seen from Table 3.12, which shows the relative cost of living in various cities as determined by their price levels. London ranks at number 6 according to this survey by UBS, while as shown by Table B2 in Appendix B UBS also find that public transport, while not the most expensive in the world, is also costly in London Knight Frank, in examining the affordability of a number of global cities for graduates - an important demographic for future success of the city - ranked London 13th out of 20 cities behind cities such as Frankfurt, Berlin, Paris and New York, but ahead of Tokyo, Singapore, Shanghai and Hong Kong¹⁴¹. While Mercer, ranked London as 12th most expensive out of 207 cities in their 2015 cost of living rankings behind Luanda, Hong Kong, Zurich, Singapore, Geneva, Shanghai, Beijing, Bern, N'Djamena and Tokyo, but ahead of New York, Dubai and Paris among others¹⁴².

¹⁴¹ Knight Frank, 2015, 'Global Cities Index 2015'.

¹⁴² Mercer, 17 June 2015, '2015 Cost of Living Rankings'.

Table 3.12: Price levels in selected world cities¹⁴³ (Index New York = 100)¹⁴⁴

Rank	City	Excl. rent	Incl. Rent	Rank	City	Excl. rent	Incl. Rent	Rank	City	Excl. rent	Incl. Rent
1	Zurich	108.7	92.6	25	Dublin	70.3	63.1	49	Tallinn	54.4	44
2	Geneva	106.1	91.8	26	Taipei	67.3	62.7	50	Ljubljana	54	44
3	New York	100	100	27	Brussels	67.2	57.3	51	Bogotá	53.6	43.7
4	Oslo	92.9	79.9	28	Rome	67.1	57.1	52	Jakarta	53.3	41.6
5	Copenhagen	88	74.3	29	Manama (Bahrain)	66.6	55.4	53	Bratislava	53.3	42.6
6	London	84.7	79.5	30	Frankfurt	65.8	55.1	54	Santiago de Chile	52.8	44
7	Chicago	83.5	76.7	31	Munich	65.5	56.1	55	Lima	52.2	42.8
8	Tokyo	83.1	70.6	32	Vienna	65.4	53.4	56	Kuala Lumpur	52	41.2
9	Auckland	82.8	67.6	33	Amsterdam	65.3	55.5	57	Moscow	51.9	45.2
10	Sydney	80.5	72.5	34	Shanghai	64.9	54.3	58	Manila	51.3	41.1
11	Seoul	79.2	64.2	35	Istanbul	64.8	53	59	Vilnius	50.9	40.9
12	Toronto	78.1	63.7	36	Doha	64.8	61.4	60	Nairobi	50.3	40.5
13	Milan	77.9	64.5	37	Lyon	64.8	51.2	61	Warsaw	48.8	39.6
14	Stockholm	76.9	62.8	38	Berlin	63.3	51.3	62	Cairo	48.1	38.7
15	Montreal	76.2	58.9	39	Barcelona	63.2	50.5	63	Budapest	47.6	38.6
16	Miami	76.1	67.7	40	Beijing	61.4	53.2	64	Johannesburg	46.6	40.5
17	Los Angeles	76	67.4	41	Madrid	60.6	50.4	65	Riga	45.8	37.1
18	Helsinki	74.3	63.2	42	Nicosia	60.3	48.4	66	Prague	45.6	36.4
19	Hong Kong	72.9	76.8	43	São Paulo	59.4	49.5	67	New Delhi	45.5	36.9
20	Paris	72.6	63.8	44	Athens	58.9	47.5	68	Mumbai	44.9	37.2
21	Luxembourg	72.3	66.1	45	Rio de Janeiro	57.9	49.2	69	Bucharest	43.8	34.5
22	Tel Aviv	72	61.4	46	Bangkok	57.5	46.4	70	Sofia	39	30
23	Dubai	71.1	66.1	47	Lisbon	55.5	45.3	71	Kiev	38.1	30.3
24	Buenos Aires	70.4	56.1	48	Mexico City	54.7	46.2				

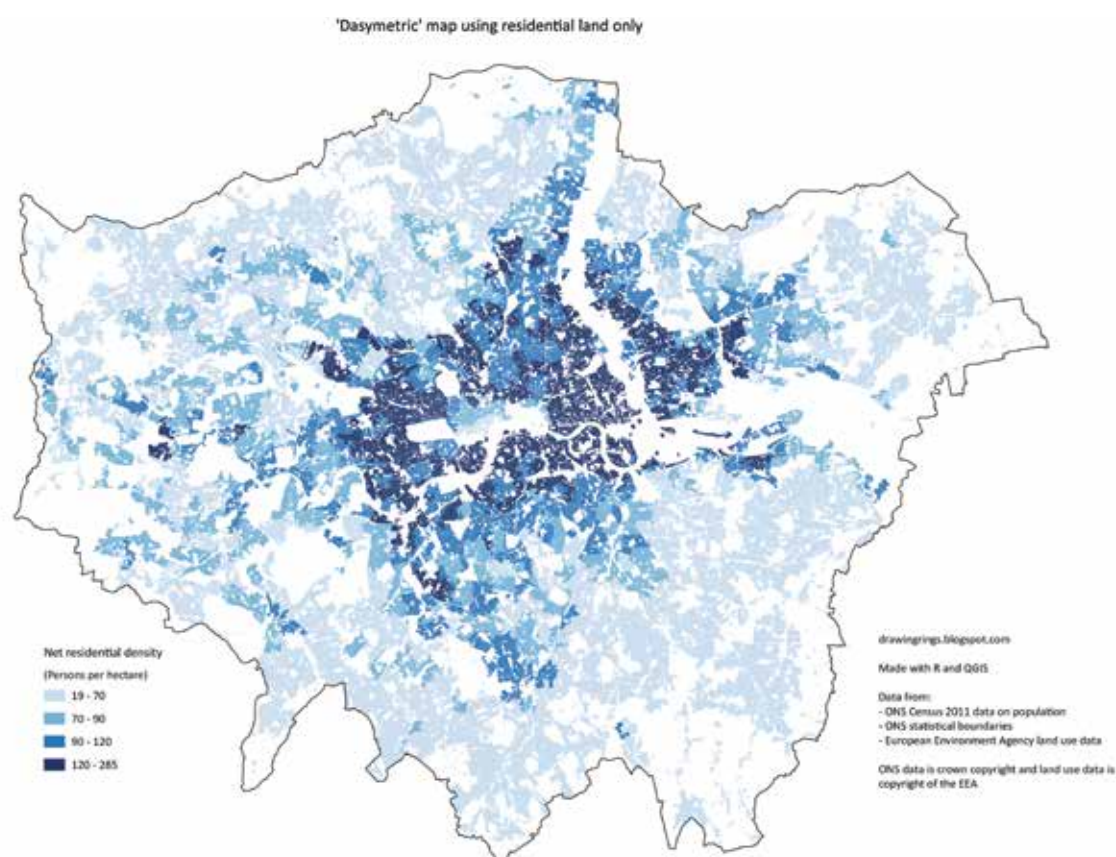
Source: UBS¹⁴⁵¹⁴³ This survey was published in 2015.¹⁴⁴ UBS notes: "the composition of our reference basket of goods and services represents the spending habits of a three-person European family. The prices of the 122 goods and services are weighted by monthly consumption. For example, we assume that a family in Europe consumes almost 15 kilos (33 pounds) of vegetables every month, but only buys a new personal computer every 2.5 years. Price level calculations are based on the cost of a basket of 122 goods and services including rent. For our index, these reference basket prices are shown as relative to our reference city, New York City. Rent values were calculated by weighting the prices of our three types of housing equally".¹⁴⁵ UBS, September 2015, 'Prices and earnings – Edition 2015: Do I earn enough for the life I want?'.

Transport

Another factor that will influence where firms and people decide to locate is the ease of travel around and the city's transport infrastructure. This is of considerable concern in relation to the issue of airport capacity. This is covered in more detail in Chapter 7.

As shown by Map 3.4 Central London's population density is relatively high (standing second highest for any EU NUTS 1 region¹⁴⁶) and spread over a comparatively large area. This is also the case for a number of other global cities. London has a population density that peaks at 27,100 people per km², with New York standing at 59,150 and Hong Kong at 111,100¹⁴⁷, as shown by Map 3.5. However, it should be noted that Map 3.5 also highlights how although high by European standards, London's population density is still dwarfed by other global cities. Still this relatively dispersed and dense population necessitates a significant investment in transport infrastructure. This is especially so in the case of public transport with Figure 3.23 indicating that London ranks highly in non-personal vehicle commuting, the majority of which is via public transport.

Map 3.4: Population density in London, 2011

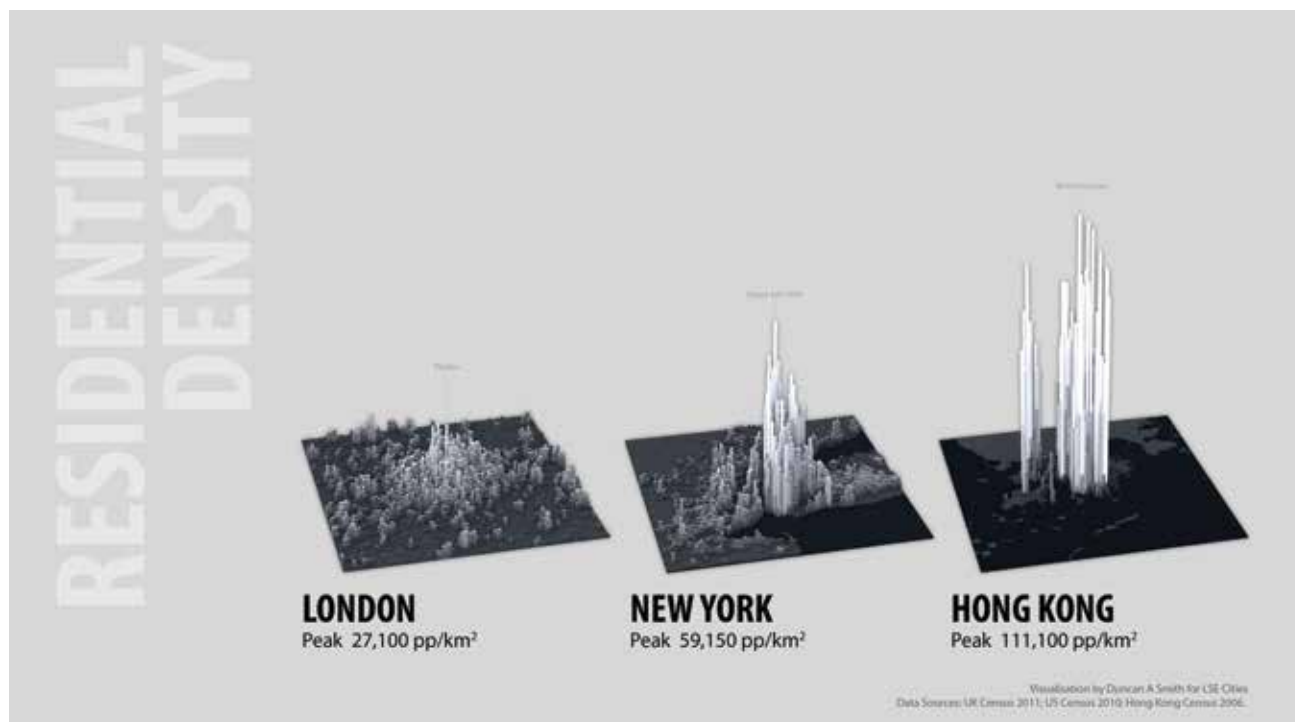


Source: Census

¹⁴⁶ I2sare, November 2010, 'Regional Health Profiles in the European Union: United Kingdom – London'.

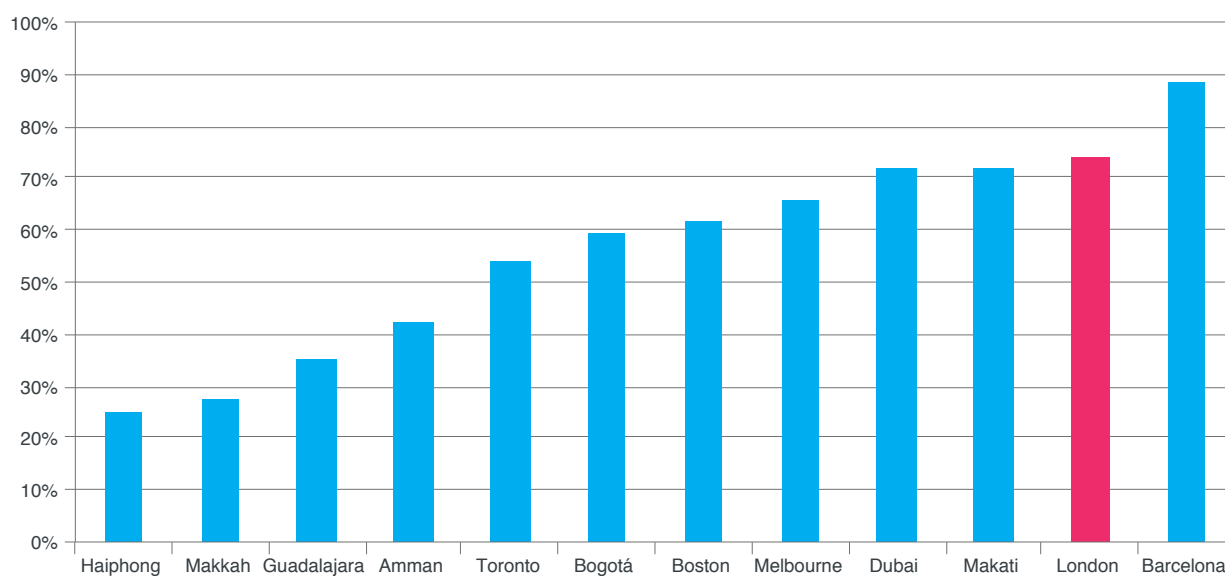
¹⁴⁷ City geographies, 12 December 2012, 'World City Living and Working Densities: Poles Apart?'

Map 3.5: Residential density in London, New York and Hong Kong



Source: City geographies

Figure 3.23: Percentage of commuters using a travel mode to work other than a personal vehicle in selected world cities (2014 WCCD data submission)



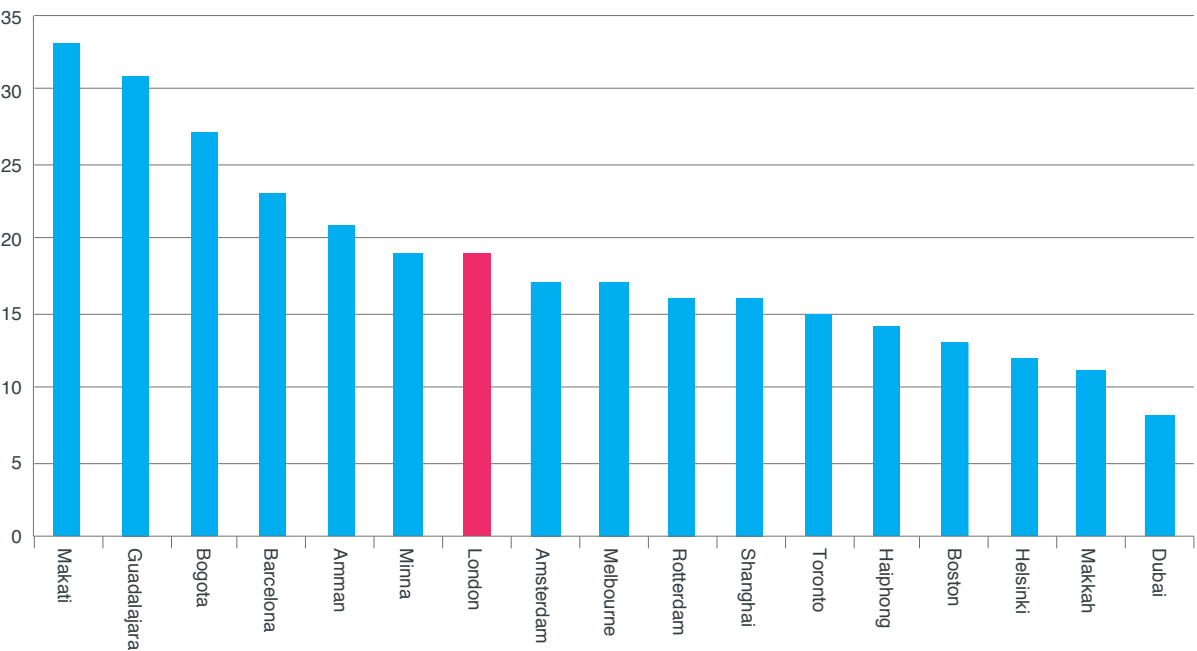
Source: World Council on City Data: WCCD Open City Data Portal

However, London’s transport network faces severe challenges from over use. There is huge congestion in the morning peak on the Tube and rail network and the road network has significant travel delays. This congestion may indicate why a London commuter was recently found to have an average daily trip to and from work that took 74 minutes, slower than Los Angeles, San Francisco, Berlin, Chicago, Sydney, Paris, Tokyo and New York, although significantly faster than the 101 minutes for Shanghai¹⁴⁸.

Education and health resources

As demonstrated above a highly educated workforce has been one of the key factors driving London’s success and this is likely to become even more important into the future. Further, a key influence as to where to locate as a worker is likely to be the quality of the education that is available to your child. Figure 3.24 gives an indication of the type of resources available to a child in London by examining the student/teacher ratio and comparing it internationally. As can be observed from this figure London’s situation is relatively poor when compared to other rich cities.

Figure 3.24: Primary education student/teacher ratio in selected world cities (2014 WCCD data submission)



Source: World Council on City Data: WCCD Open City Data Portal

¹⁴⁸ London First, 2015, 'London 2036: An agenda for jobs and growth'. London Enterprise Panel.

Looking at the UK as a whole it ranks relatively well on expenditure per primary education student as shown in Table 3.13 but rather averagely on other measures such as spending on tertiary education per student. While on other indicators its performance is also relatively poor with it ranking 20th in educational achievement according to OECD statistics as can be seen from Figure 3.25. However, as shown by Figure 3.26, 21 OECD countries have a better record for students achieving basic skills.

Table 3.13: Expenditure per student at different education levels US\$ (tens), 2011 ranked on primary education spending (annual, equivalent US\$ using PPPs)

	Expenditure per student, pre-primary education	Expenditure per student, primary education	Expenditure per student, secondary education	Expenditure per student, tertiary education including R&D activities
Luxembourg	25,074	23,871	16,182	..
Switzerland	5,267	12,907	15,891	22,882
Norway	6,730	12,459	13,939	18,840
United States	10,010	10,958	12,731	26,021
Austria	8,933	10,600	13,607	14,895
Iceland	9,138	10,339	8,470	8,612
Sweden	6,915	10,295	10,938	20,818
United Kingdom	9,692	9,857	9,649	14,223
Denmark	14,148	9,434	10,937	21,254
Belgium	6,333	9,281	11,732	15,420
Slovenia	8,136	9,260	8,568	10,413
Canada	..	9,232	..	23,226
Australia	10,734	8,671	10,354	16,267
Ireland	..	8,520	11,502	16,095
Italy	7,868	8,448	8,585	9,990
OECD - Average	7,428	8,296	9,280	13,958
Japan	5,591	8,280	9,886	16,446
Finland	5,700	8,159	9,792	18,002
New Zealand	11,088	8,084	9,312	10,582
Netherlands	8,020	8,036	12,100	17,549
Germany	8,351	7,579	10,275	16,723
Spain	6,725	7,288	9,615	13,173
Korea	6,861	6,976	8,199	9,927
France	6,615	6,917	11,109	15,375
Israel	4,058	6,823	5,712	11,554
Poland	6,409	6,233	5,870	9,659

Table 3.13 (continued):

Portugal	5,674	5,865	8,676	9,640
Slovak Republic	4,653	5,517	4,938	8,177
Estonia	2,618	5,328	6,389	7,868
Latvia	4,359	4,982	4,998	7,552
Czech Republic	4,302	4,587	7,270	9,392
Hungary	4,564	4,566	4,574	9,210
Chile	5,083	4,551	4,495	8,333
Brazil	2,349	2,673	2,662	10,902
Mexico	2,568	2,622	2,943	7,889
Turkey	2,412	2,218	2,736	8,193
Argentina	1,979	2,167	3,034	..
Colombia	3,491	2,041	2,207	6,882
Indonesia	205	587	522	1,173

Source: OECD¹⁴⁹

¹⁴⁹ See: http://www.oecd-ilibrary.org/education/data/education-at-a-glance/financial-and-human-resources-investment-in-education_data-00750-en?isPartOf=/content/datacollection/edu-db-data-en

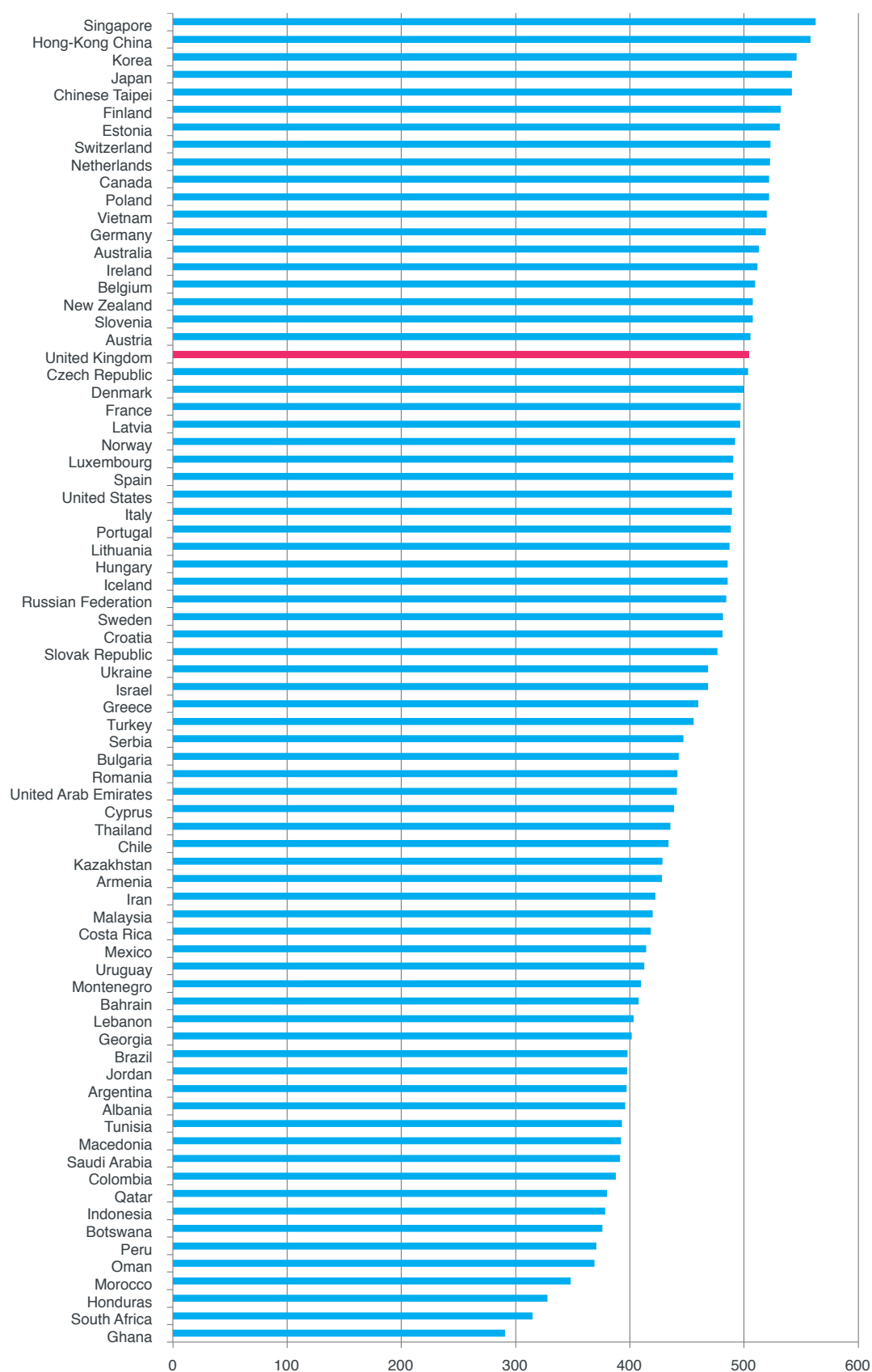
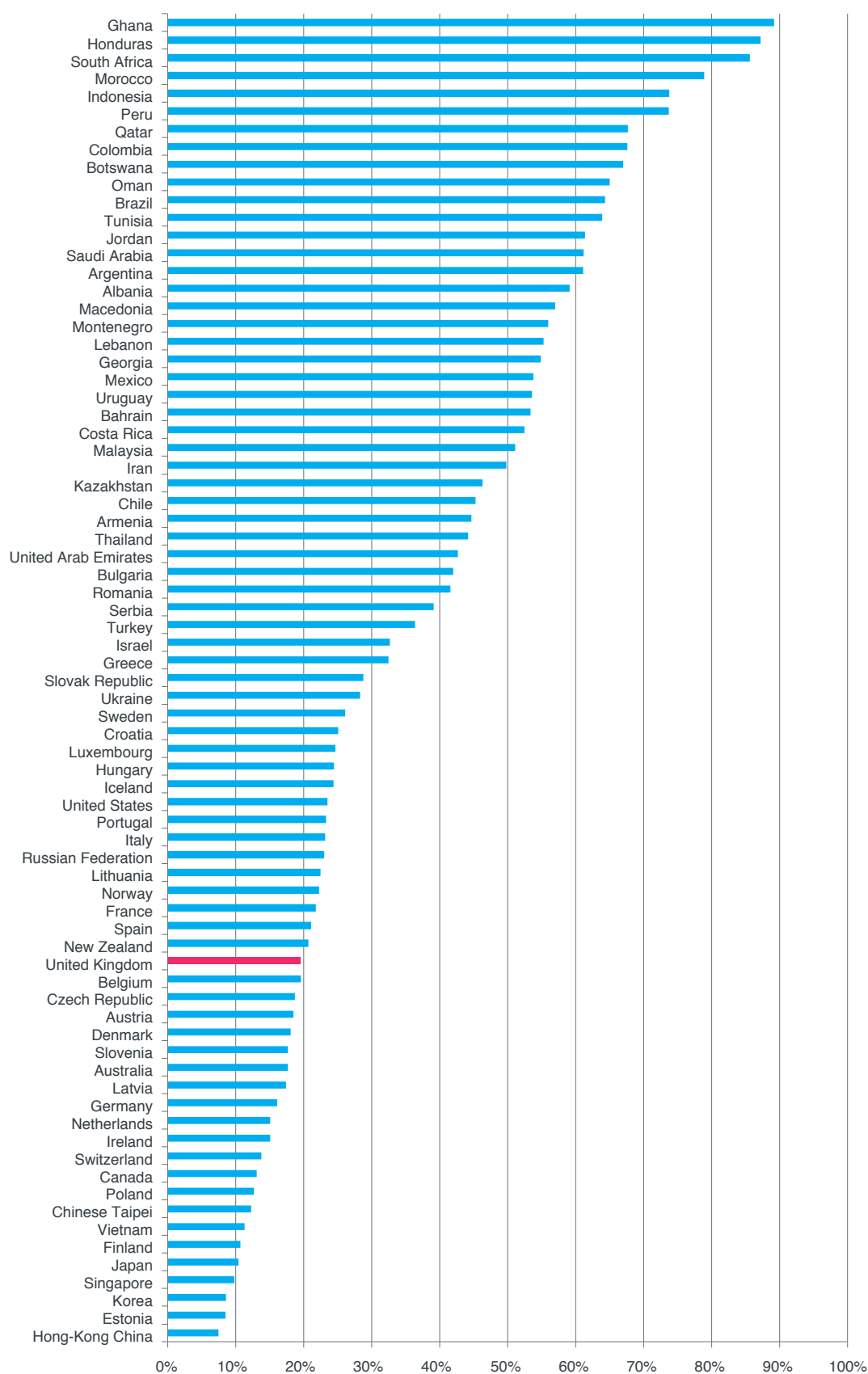
Figure 3.25: Average performance on international student achievement testsSource: OECD¹⁵⁰¹⁵⁰ Hanushek, E. A., & Woessmann, L., May 2015, 'Universal Basic Skills: What Countries Stand to Gain'. OECD.

Figure 3.26: Share of students not acquiring basic skills

Source: OECD

Healthcare provision is also an important factor affecting a city's liveability. International surveys have ranked London highly in this with it being tied at 5th with Chicago and Singapore "for health, safety and security" in PwC's Cities of opportunity 6 survey¹⁵¹. However, a recent survey comparing London to a number of world cities by the London Health Commission did not rank London the 'healthiest' but also rarely ranked it as the 'unhealthiest' city on any of the health rankings examined as shown by Table 3.14. Thus for example London has slightly better life expectancy than New York but slightly worse than Paris, with this also holding for income inequality.

Table 3.14: Comparing London's health outcomes to a number of other global cities

	Hong Kong	Johannesburg	London	Madrid	New York	Paris	São Paulo	Sydney	Tokyo	Toronto
Income inequality (Gini coefficient)	0.5	0.63	0.44	0.44	0.51	0.38	0.61	0.39	0.38	0.4
Male life expectancy (years)	81	54	80	79	78	79	71	79	80	80
Female life expectancy (years)	86	57	84	85	83	85	79	84	86	85
Infant mortality (deaths/ 1,000 births)	1.3	48	4.3	3.9	4.7	3.7	12	5.5	2.7	6.1
One way commute journey time (minutes)	36	36	37	40	34.6	33.7	42.8	33	34.5	33
% of obese adults	..	..	20	8	24	7	16	12	4	12
% of obese/ overweight adults	19	59	57	42	56	40	47	38	25	41
% of obese Children	7	..	22	2	21	5	7	10	..	12
% of obese/ overweight children	27	..	37	15	39	16	25	29	10	32
% reaching recommended physical activity level	40	21	57	23	56	38	62	56	32	47
% of population who smoke	13	..	18	28	16	40	15	16	20	17
% of population consuming 5+ drinks in one occasion	6	..	14	14	20	15	..	24	..	13
Suicides per 1 00,000 pop.	11.8	..	7.5	2.7	6	8.1	5.4	8.6	21.3	6.9

Source: London Health Commission¹⁵²

¹⁵¹ Price Waterhouse Cooper, 2014, 'Cities of Opportunity 6'.

¹⁵² London Health Commission, 2014, 'Global City Comparisons: Overview'.

In terms of a number of indicators London's health performance with respect to the rest of England is also mixed with Table 3.15 showing that female life expectancy in London is the highest of any region while male life expectancy is one of the highest. However, healthy life expectancy was around the English average for both men and women in London.

Table 3.15: Life expectancy (LE) and healthy life expectancy (HLE) for males and females at birth by English region, 2011 to 2013

	Males		Females	
	Life Expectancy	Healthy Life Expectancy	Life Expectancy	Healthy Life Expectancy
South East	80.4	65.6	83.9	66.7
South West	80.1	65.3	83.8	65.5
East	80.3	64.6	83.8	65.4
London	80.0	63.4	84.1	63.8
East Midlands	79.3	62.7	83.0	63.5
West Midlands	78.8	62.4	82.8	62.8
North West	78.0	61.2	81.8	61.9
Yorkshire and The Humber	78.5	61.1	82.2	61.8
North East	78.0	59.3	81.7	60.1
England	79.4	63.3	83.1	63.9

Source: ONS¹⁵³

Although “74 per cent of people in the UK reported being in good or better health in 2013, higher than the OECD average of 68 per cent”¹⁵⁴; the situation in terms of health care resources in the UK compared to other countries is mixed. This is shown by Tables B3 and B4 in Appendix B which examines hospital beds and curative care beds per 100,000 of population in the UK and selected European countries. The tables show that the UK would appear to be relatively lagging in terms of this indicator. Figures B4 and B5 in Appendix B look at health care resources in terms of in-patient beds and physicians per 100,000 of population and number of nursing and midwifery personnel per 100,000 of population in London and selected world cities, but in this case shows a relatively strong performance for London. However, if we examine London in relation to UK and EU regions in relation to these indicators and others the picture becomes

¹⁵³ Office for National Statistics, 26 March 2015, ‘Healthy Life Expectancy at Birth for Upper Tier Local Authorities: England, 2011 to 2013’.

¹⁵⁴ Beardsmore, R. & Randall, C., 1 July 2015, ‘Measuring National Well-being: International Comparisons, 2015’. Office for National Statistics.

more mixed as shown in Table 3.16, which shows that for some health indicators London performs well compared to the UK and EU, with it ranking relatively well for instance on mortality from circulatory disease, whilst in other indicators, such as AIDS Incidence it ranks less well.

Table 3.16: Health summary for London against UK and EU rankings

Domain	Indicator	Rank of London in	
		UK ¹⁵⁵	EU ¹⁵⁶
Mortality	Life expectancy at birth: Female	4/12	90/189
	Life expectancy at birth: Male	4/12	51/189
	Infant mortality	7/12	78/248
	Perinatal death rate	2/12	40/227
	Mortality all causes: Female	9/12	172/265
	Mortality all causes: Male	4/12	214/265
	Premature mortality <65: Female	9/12	126/265
	Premature mortality <65: Male	7/12	189/265
	Mortality circulatory diseases: Female	9/12	191/244
	Mortality circulatory diseases: Male	9/12	177/244
	Mortality cancers: Female	10/12	82/235
	Mortality cancers: Male	9/12	184/235
	Mortality external causes: Female	10/12	212/244
	Mortality external causes: Male	12/12	240/244
Morbidity	AIDS Incidence	1/11	19/168
	Low weight births	5/12	27/169
	Road injuries and deaths	9/12	206/212
Risk Factors	Obese adults	11/12	13/113
	Overweight and Obesity	11/12	16/92
	Adult smokers	8/12	108/158
Health Professionals and Health Care Services	Physicians	2/12	156/262
	Midwives	3/12	29/160
	Nurses (including midwives)	3/12	47/232
	Hospital beds	6/12	212/265
	Acute care beds	9/12	245/262
	Psychiatric beds	3/12	100/246
	Acute care discharge from hospital	7/12	22/216

Source: I2sare project¹⁵⁷

¹⁵⁵ Ranking out of 12 UK regions.

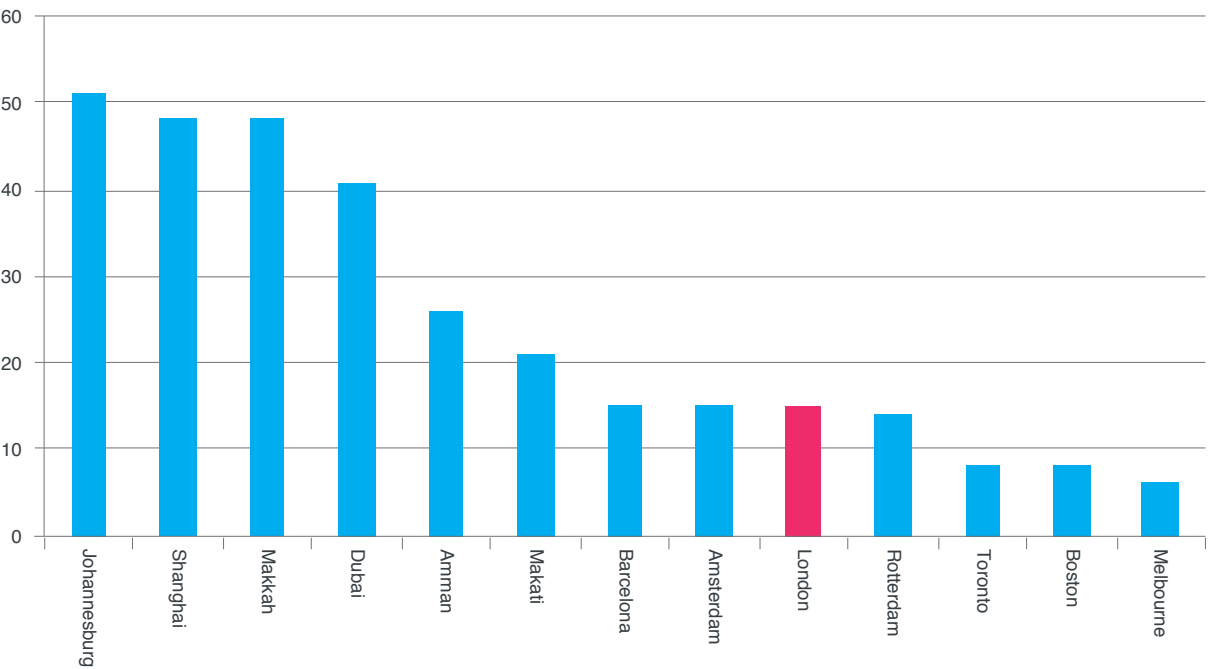
¹⁵⁶ Ranking out of EU regions for which data is available.

¹⁵⁷ I2sare, November 2010, 'Regional Health Profiles in the European Union: United Kingdom – London'.

Pollution

Pollution can impact significantly on an individual's health as well as reducing the liveability of a city. Still, Figure 3.27 shows that fine particulate pollution across London as a whole stands at similar levels to other compared European cities.

Figure 3.27: Fine particulate matter (PM2.5)¹⁵⁸ concentration ($\mu\text{g}/\text{m}^3$) in selected world cities (2014 WCCD data submission)

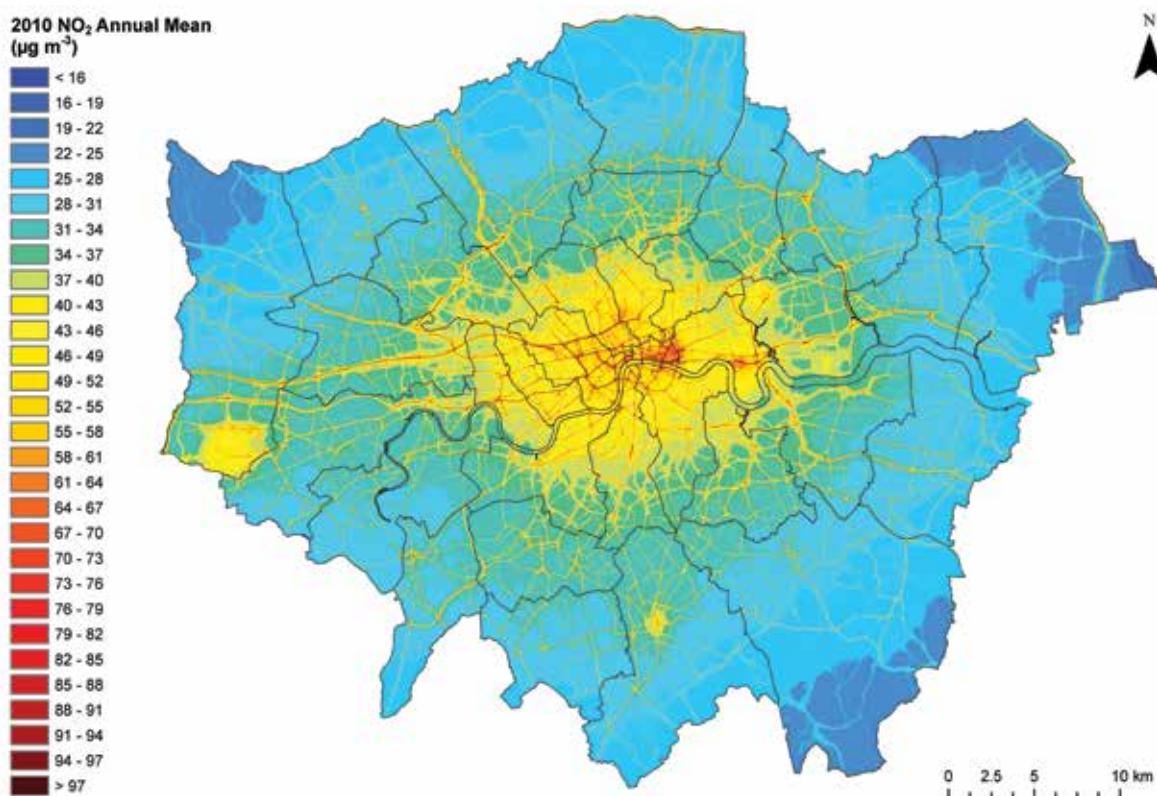


Source: World Council on City Data: WCCD Open City Data Portal

¹⁵⁸ Defra notes: 'particulate matter (PM) is the term used to describe condensed phase (solid or liquid) particles suspended in the atmosphere. Their potential for causing health problems is directly linked to the size of the particles. A growing body of research has pointed towards the smaller particles, in particular PM less than 2.5 μm in diameter (PM2.5), as a metric more closely associated with adverse health effects than other metrics such as PM10 (particles with a diameter less than 10 μm).

However, other forms of pollution have recently been causing concern such as nitrogen dioxide (NO₂), which stands at very high levels in parts of London as shown by Map 3.6 (although not too dissimilar to levels seen in other cities as indicated by Figure 3.28). Still, Figures 3.29 to 3.31 shows that pollution in London has seen a slight decline between 2013 and 2015 both at the London Mean Roadside (LMR) and London Mean Background (LMB) levels.

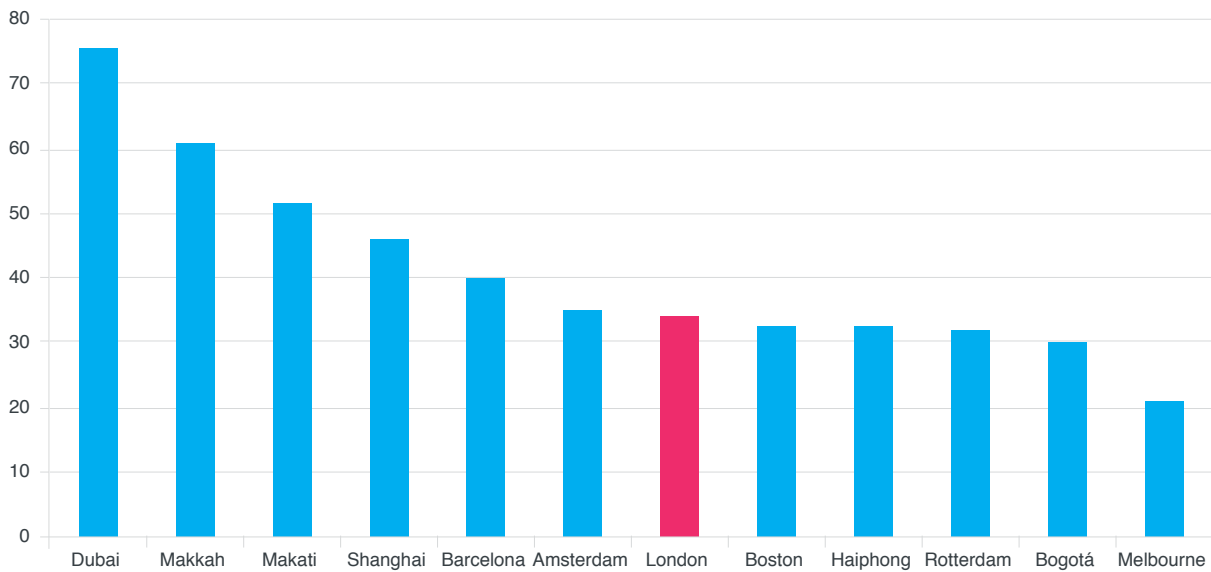
Map 3.6: NO₂ annual mean concentrations (mg/m³) for the year 2010



Source: Cleaner Air for London¹⁵⁹

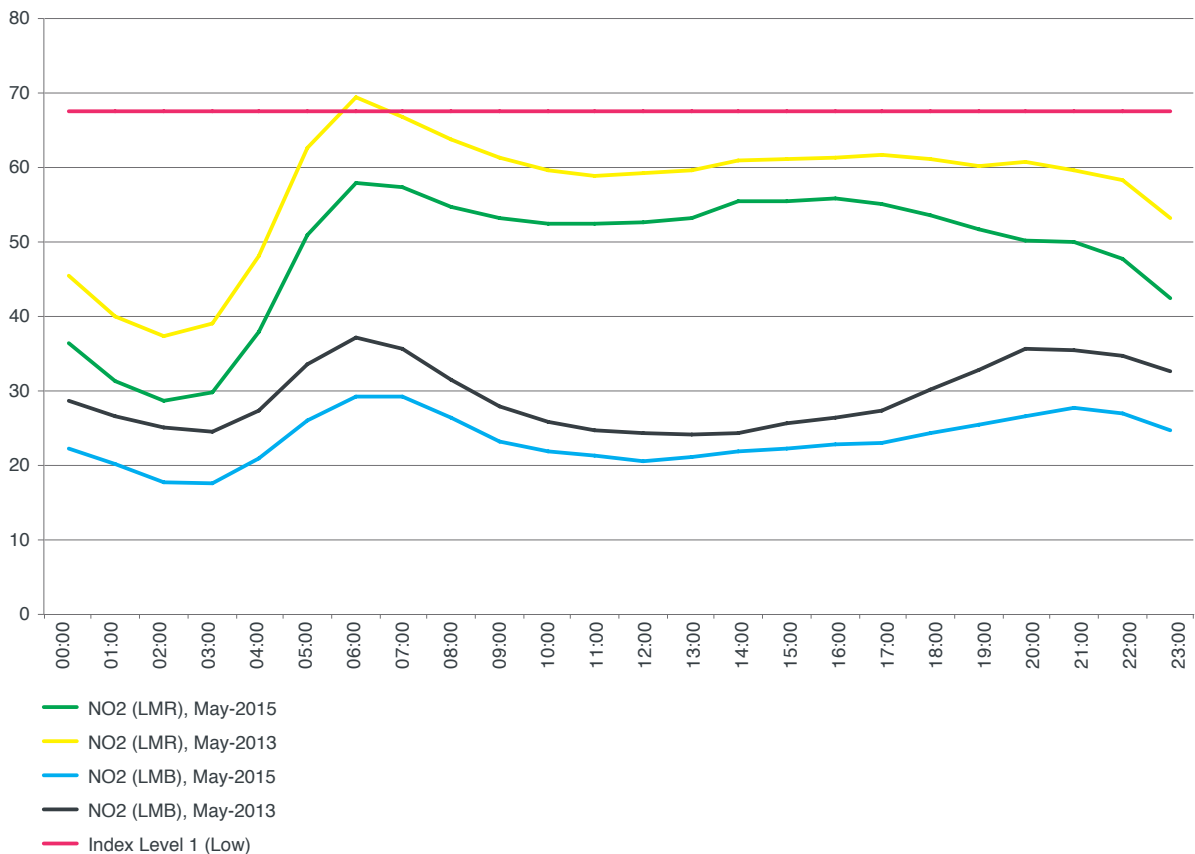
¹⁵⁹ LAEI Air Quality Data for 2010.

Figure 3.28: NO₂ (nitrogen dioxide) concentration in selected world cities (2014 WCCD data submission)



Source: World Council on City Data: WCCD Open City Data Portal

Figure 3.29: NO₂ level average time-of-day charts May 2013 and 2015¹⁶⁰

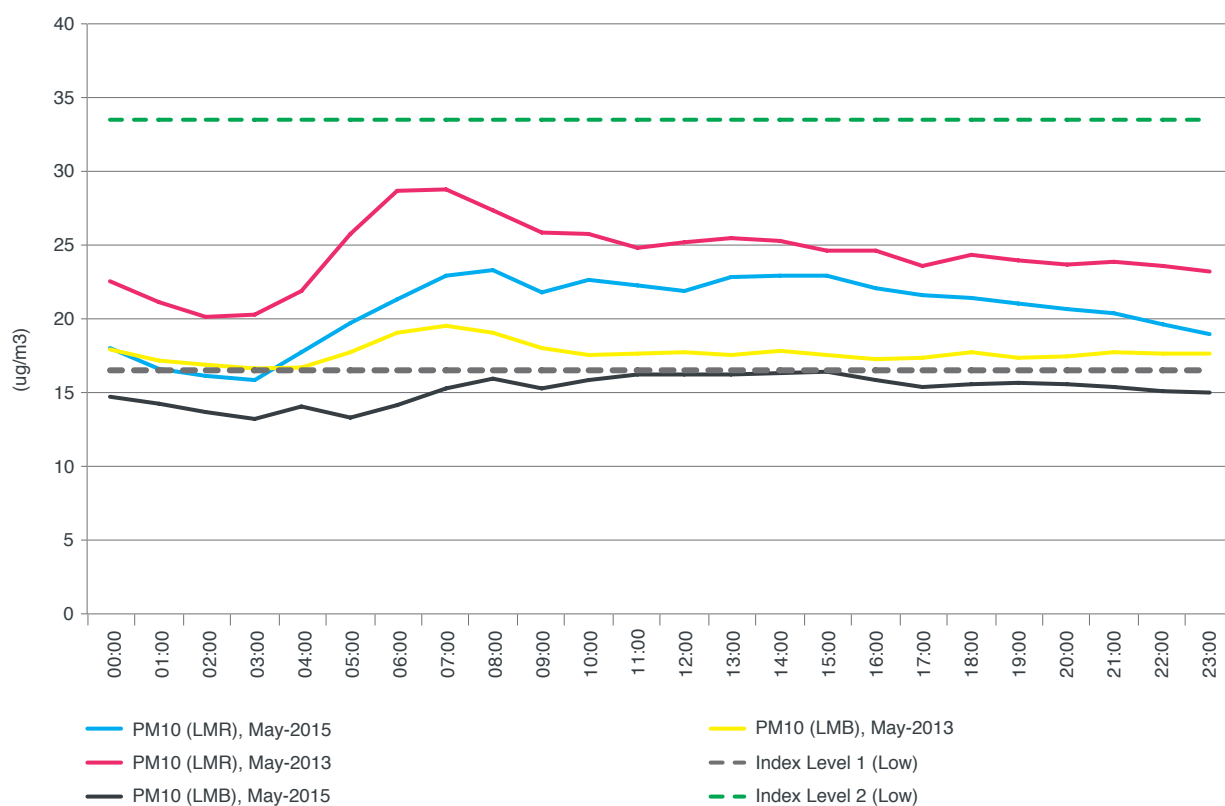


Source: GLA Intelligence Unit¹⁶¹

¹⁶⁰ Index level 1 relates to nitrogen dioxide 1-hour mean ($\mu\text{g m}^{-3}$) between 0 and 67.

¹⁶¹ See: <http://data.london.gov.uk/dataset/london-average-air-quality-levels>

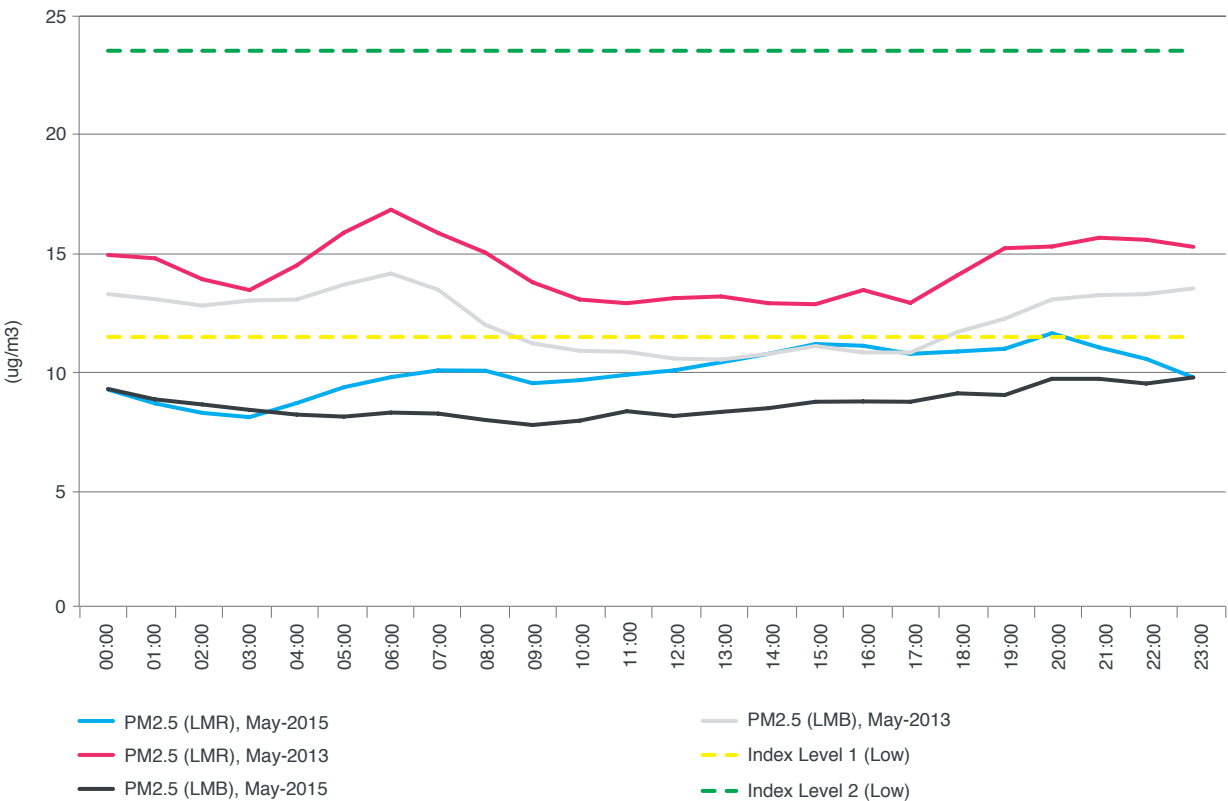
Figure 3.30: Particulate Matter (PM₁₀) level average time-of-day charts
May 2013 and 2015¹⁶²



Source: GLA Intelligence Unit

¹⁶² Index level 1 relates to nitrogen dioxide 1-hour mean ($\mu\text{g m}^{-3}$) between 0 and 67.

Figure 3.31: Particulate Matter (PM2.5) level average time-of-day charts
May 2013 and 2015¹⁶³



Source: GLA Intelligence Unit

¹⁶³ Index level 1 relates to PM2.5 particles 24-hour mean ($\mu\text{g m}^{-3}$) between 0 and 11; Index level 2 is between 12 and 23.

Noise Pollution

Other factors which have been found to impact on quality of life in London include noise pollution. A recent study of people living in London between 2003 and 2010 found that “deaths were four per cent more common among adults and the elderly in areas with daytime road traffic noise of more than 60dB compared to areas with less than 55dB”¹⁶⁴. Whilst Defra has not undertaken recent data collection on noise pollution, they previously undertook analysis mapping noise created by road, rail, air and industrial sources in London and a range of other urban areas across the UK. Key findings from this analysis include:

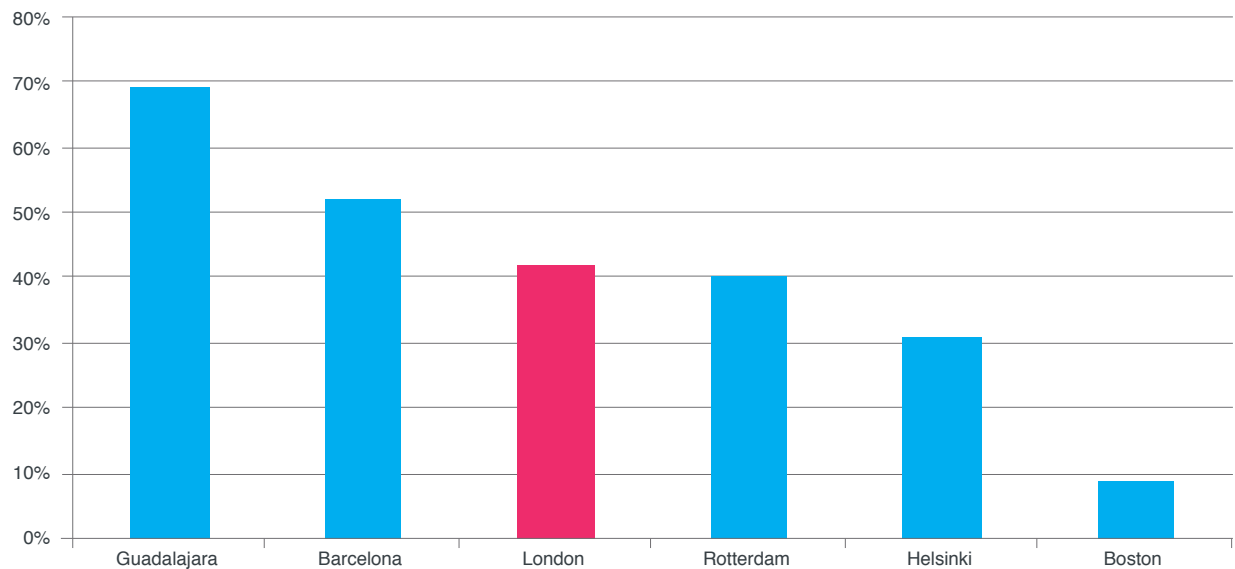
- 39 per cent of Londoners are exposed to noise levels above 60dB during daytime hours and 7 per cent are exposed to levels above this at night
- Nearly 270,000 people in London are exposed to rail noise pollution greater than 60dB (although only 1,600 are exposed to levels at or above 75dB) by day and nearly 46,000 by night
- A relatively small number of Londoners are affected by levels of over 60dB from industrial sources in London: 8,000 during the daytime and less at night
- Almost 195,000 people (not all within Greater London) are exposed to noise pollution from London Heathrow Airport at levels of over 60dB during daytime hours (although only 700 are exposed to levels at or above 75dB) and 62,000 are exposed to 60dB or more during the night¹⁶⁵.

¹⁶⁴ Imperial College London, 24 June 2015, ‘Road traffic noise linked to deaths and increased strokes’.

¹⁶⁵ As summarised in: GLA Economics, May 2010, ‘Economic Evidence Base: to support the London Plan, the Transport Strategy and the Economic Development Strategy’.

However, Figure 3.32 which attempts to put noise pollution in London into an international context would indicate that although likely to be detrimental to London’s liveability noise pollution is an issue in many other large cities as well.

Figure 3.32: Noise pollution in selected world cities (2014 WCCD data submission)



Source: World Council on City Data: WCCD Open City Data Portal

Crime

While crime is generally falling in London, it could affect the city's international appeal. The OECD found that London was the least safe of any UK region (although still performing better than the OECD average)¹⁶⁶. Still as shown by Table 3.17, total recorded crime in London remained broadly unchanged in London in the year to June 2015. However, as can also be seen from the table certain offences have increased markedly such as sexual and violence based offences.

Table 3.17: Police recorded crime by offence group, London and London police forces and England, percentage change, year to June 2014 compared with year to June 2015

	City of London	Metropolitan Police	London Region	ENGLAND
Total recorded crime - excluding fraud	2	3	3	5
Violence against the person	25	24	24	25
Homicide	..	-7	-6	6
Violence with injury	5	15	15	17
Violence without injury	51	30	31	33
Sexual offences	15	29	29	42
Robbery	..	-18	-18	-11
Theft offences	-1	-5	-5	-3
Burglary	-6	-11	-11	-6
Domestic burglary	..	-11	-11	-6
Non-domestic burglary	-12	-11	-11	-7
Vehicle offences	-4	-7	-7	-3
Theft from the person	19	-14	-13	-13
Bicycle theft	-2	-5	-5	-4
Shoplifting	5	12	11	3
All other theft offences	-5	-1	-1	-2
Criminal damage and arson	-2	9	9	3
Drug offences	-11	-20	-19	-17
Possession of weapons offences	..	1	1	8
Public order offences	44	36	36	26
Miscellaneous crimes against society	-20	20	19	18

Source: ONS via GLA Datastore

¹⁶⁶ OECD, 2014, 'How's Life in Your Region: Measuring Regional and Local Well-Being for Policy Making'.

Still it should be noted that international comparisons of crime (although limited) would indicate that London is a relatively safe city with a responsive emergency services if required as indicated by Figure B6 and B7 in Appendix B. This would also seem to be supported by national level data as shown by Table 3.18, which shows that the UK ranks quite low compared to other countries in its murder rate. However, on other measures of crime and also on police personnel per 100,000 of population England and Wales ranks less well internationally as is shown in Table 4.19, below.

Table 3.18: Homicides in selected countries, rates per 100,000 population, 2004-2013 (ranked on 2013)

Country/ Territory	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Honduras	53.8	46.6	44.3	50.0	60.8	70.7	81.8	91.8	91.0	84.3
Jamaica	55.2	62.4	49.7	58.5	59.5	61.6	52.6	40.9	39.1	42.9
El Salvador	45.8	62.2	64.4	57.1	51.7	70.9	64.1	70.2	41.5	39.8
South Africa	39.5	38.4	39.3	37.3	36.1	33.1	31.0	29.9	30.7	31.9
Colombia	44.8	39.6	36.8	34.7	33.0	33.7	32.3	33.5	30.7	31.8
Trinidad and Tobago	20.1	29.8	28.5	29.8	41.6	38.3	35.6	26.4	28.3	30.2
Brazil	..	..	..	23.5	23.9	23.0	22.2	23.3	26.5	26.5
Mexico	8.5	9.0	9.3	7.8	12.2	17.0	21.8	22.8	21.5	18.9
Panama	9.3	10.8	10.8	12.7	18.4	22.6	20.6	20.3	17.2	17.2
Philippines	7.5	7.5	7.1	6.5	6.4	6.9	9.5	9.1	8.8	9.3
Russian Federation	..	..	..	..	11.6	11.1	10.1	9.7	9.2	9.0
Lithuania	10.3	11.3	8.9	8.7	9.5	8.1	7.1	7.0	6.8	6.8
Kenya	4.0	3.5	3.5	3.4	3.6	5.6	5.5	6.3	6.5	6.6
Estonia	6.8	8.5	6.9	7.1	6.4	5.4	5.4	5.0	4.9	4.1
United States of America	5.5	5.6	5.8	5.6	5.4	5.0	4.7	4.7	4.7	3.8
Latvia	8.0	5.7	5.8	4.3	4.6	5.1	3.3	3.4	4.8	3.5
India	3.8	3.7	3.6	3.6	3.6	3.5	3.5	3.6	3.5	3.3
Hungary	2.1	1.6	1.7	1.5	1.8	1.5	1.6	1.7	1.4	2.7
Belgium	2.6	2.1	2.1	2.0	1.9	1.7	1.7	1.9	1.7	1.8
Finland	2.8	2.3	2.3	2.4	2.5	2.2	2.2	2.0	1.6	1.7
Malta	1.7	1.0	0.0	1.0	1.4	0.9	0.9	0.7	2.8	1.6
Bulgaria	3.2	2.6	2.4	2.3	2.3	2.0	2.0	1.7	1.9	1.5
Romania	2.3	2.1	2.0	1.9	2.1	1.8	1.8	1.5	1.7	1.5
Serbia	1.6	1.5	1.6	1.7	1.4	1.5	1.3	1.4	1.2	1.5

Canada	1.7	1.8	1.7	1.6	1.7	1.6	1.4	1.5	1.6	1.4
Macao	2.2	1.5	2.3	2.2	1.6	1.9	0.7	1.3	1.3	1.4
Slovakia	2.3	2.0	1.6	1.6	1.7	1.5	1.6	1.8	1.4	1.4
Greece	1.0	1.2	1.0	1.2	1.3	1.4	1.6	1.7	1.5	1.4
Algeria	1.3	0.6	0.9	0.8	0.9	0.8	0.7	0.8	1.4	1.3
Portugal	1.4	1.3	1.5	1.8	1.2	1.2	1.2	1.1	1.1	1.3
France	1.6	1.6	1.4	1.6	1.6	1.3	1.3	1.3	1.2	1.2
Ireland	0.7	1.3	1.5	1.8	1.1	1.3	1.2	0.9	1.2	1.1
Croatia	1.9	1.5	1.6	1.4	1.5	1.1	1.4	1.1	1.2	1.1
Australia	1.5	1.3	1.3	1.2	1.2	1.2	1.0	1.1	1.1	1.1
Cyprus	1.6	1.9	1.4	1.2	0.8	1.7	0.7	0.8	2.0	1.0
United Kingdom	1.6	1.5	1.4	1.4	1.2	1.2	1.2	1.0	1.0	1.0
The former Yugoslav Republic of Macedonia	2.3	2.1	2.2	2.0	1.7	1.7	2.0	1.4	1.4	1.0
New Zealand	1.1	1.5	1.2	1.1	1.2	1.5	1.0	0.9	0.9	1.0
Hong Kong	0.7	0.5	0.5	0.3	0.5	0.7	0.5	0.2	0.4	0.9
Czech Republic	1.3	1.1	1.3	1.2	1.1	0.9	1.0	0.8	1.0	0.9
Norway	0.8	0.7	0.7	0.6	0.7	0.6	0.6	2.3	0.5	0.9
Sweden	1.2	0.9	1.0	1.2	0.8	0.9	1.0	0.9	0.7	0.9
Poland	1.7	1.5	1.3	1.4	1.2	1.3	1.1	1.2	1.0	0.8
Italy	1.2	1.0	1.1	1.1	1.0	1.0	0.9	0.9	0.9	0.8
Denmark	0.8	1.0	0.5	0.7	1.0	0.9	0.8	0.8	0.7	0.7
Austria	0.7	0.7	0.7	0.5	0.7	0.6	0.7	0.9	1.0	0.7
Germany	1.0	1.0	1.0	0.9	0.9	0.8	0.8	0.8	0.7	0.7
Netherlands	1.2	1.1	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.7
Switzerland	1.1	1.0	0.8	0.7	0.7	0.7	0.7	0.6	0.6	0.7
United Arab Emirates	..	..	..	..	..	..	0.8	0.6	0.8	0.6
Slovenia	1.4	1.0	0.6	1.2	0.5	0.6	0.7	0.8	0.7	0.6
Spain	1.2	1.2	1.1	1.1	0.9	0.9	0.8	0.8	0.8	0.6
Japan	0.6	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.3	0.3
Singapore	0.5	0.5	0.4	0.4	0.6	0.4	0.4	0.3	0.2	0.3
Iceland	1.0	1.0	0.0	0.7	0.0	0.3	0.6	0.9	0.3	0.3
Luxembourg	0.4	0.9	1.5	1.5	1.6	1.0	2.0	0.8	..	0.2

Source: United Nations Office on Drugs and Crime (UNODC)¹⁶⁷

¹⁶⁷ See: <https://data.unodc.org/#state:0>

Table 3.19: Crime and police personnel per 100,000 population in selected countries in 2013 (ranked on police personnel per 100,000 population)

Country/Territory		Assault	Kidnapping	Robbery	Burglary breaking and entering	Domestic Burglary/ Housebreaking	Motor Vehicle Theft	Total Sexual Violence	Rape	Total Police Personnel
Macao	300.2	0.2	26.5	22.1	62.0	64.3	9.4	4.2	19.1	1,087.1
Spain	35.6	0.3	183.3	356.6	284.9	104.1	19.0	2.8	9.8	525.3
Russian Federation	24.4	0.3	64.5	172.3	70.4	36.2	9.2	3.0	32.0	522.0
Algeria	138.9	0.6	45.3	35.0	8.4	10.8	14.3	1.7	18.5	491.4
Croatia	19.2	0.0	35.5	430.9	108.6	25.1	17.3	6.3	47.3	483.6
Greece	50.4	0.9	44.2	607.9	230.0	258.8	7.7	1.3	2.4	480.2
Italy	108.7	0.5	104.6		412.2	300.8	7.4	..	10.4	453.4
Malta	50.8	0.0	48.3	335.2	181.1	75.8	21.9	3.5	38.1	452.7
Hong Kong	91.9	0.0	6.9	49.6	37.6	8.2	24.7	1.5	54.3	446.0
The former Yugoslav Rep. of Macedonia	10.3	0.9	22.2	717.0	125.2	24.1	7.2	1.8	11.5	440.2
Cyprus	11.6	1.7	13.1	234.5	156.4	131.8	4.1	1.6	..	439.8
Portugal	242.2	4.1	156.4	361.9	209.3	139.5	21.1	3.3	45.4	432.1
Slovakia	37.0	0.1	15.3	204.9	31.3	44.6	2.9	1.7	51.0	411.1
Northern Ireland	59.7	3.2	53.0	498.7	317.2	115.9	104.3	27.2	291.0	400.7
Latvia	22.3	0.9	44.7	46.6	34.3	65.7	22.0	3.6	34.2	399.9
Bulgaria	34.2	1.2	41.2	237.6	88.6	49.6	8.7	2.3	21.5	370.7
Czech Republic	174.6	0.1	28.5	582.9	103.9	100.3	19.7	5.5	43.6	362.1
Serbia	13.5	0.1	40.3	260.0	83.4	23.5	3.3	0.7	8.7	356.3
Slovenia	89.2	0.2	18.2	741.8	184.1	30.0	13.0	2.6	47.5	348.1
Belgium	621.0	10.2	1,616.0	946.1	725.5	141.6	59.7	27.7	165.0	342.1
Estonia	7.7	0.1	37.0	..	165.6	42.5	29.6	10.5		327.8
Austria	44.0	0.0	44.0	1,044.2	194.8	60.5	36.1	10.8	114.2	327.0

Scotland	1,188.3	4.7	28.1	418.0	306.6	112.2	161.5	31.7	..	323.9
Lithuania	7.0	1.5	61.9	..	108.2	49.9	14.7	4.4	48.6	312.1
Netherlands	311.1	3.1	78.1	1,720.2	659.7	124.3	51.3	7.9	27.8	307.9
Germany	612.4	2.1	57.1	528.9	180.7	79.4	56.6	9.0	93.6	296.2
Brazil	330.1	0.2	505.3	128.0	11.8	114.3	28.1	24.9	..	267.5
Australia	..	2.6	40.5	871.5	620.9	227.0	85.3	..	..	262.6
Poland	1.2	1.2	32.4	310.2	59.9	40.8	8.4	3.6	20.9	255.8
Romania	81.0		13.5	69.5	69.5	13.3	7.2	4.5	22.2	247.1
Liechtenstein	278.3	0.0	2.7	337.8	337.8	13.5	16.2	8.1	474.3	229.7
England and Wales	564.3	3.0	101.5	778.2	372.3	132.3	99.3	36.4	199.0	224.6
Switzerland	7.0	4.0	67.1	850.8	412.6	83.5	89.6	7.1	91.2	220.6
Sweden	839.8	..	87.4	892.8	424.8	289.7	190.0	58.9	420.4	208.0
Iceland	27.9	..	14.9	331.4	112.6	63.1	137.2		258.3	207.3
Japan	46.7	0.1	2.6	84.4	45.5	57.4	7.1	1.1	22.4	202.2
Canada	138.9	9.2	66.0	443.3	277.7	206.9	75.6	..	60.3	196.9
USA	226.3	..	107.8	602.5	445.5	218.6	..	24.9	..	195.9
Denmark	164.8	..	56.8	1,404.1	746.0	169.0	..	6.2	..	191.3
France	299.6	3.5	193.9	593.3	382.9	269.4	43.2	17.4	118.0	172.4
Norway	50.9	..	33.1	312.1	108.2	131.6	49.6	22.5	100.4	163.6
Singapore	8.8	..	4.7	9.4	..	7.5	26.7	2.2	37.4	162.2
Finland	654.3	0.0	28.1	316.4	105.9	146.7	61.0	18.0	176.9	141.5
India	26.7	5.2	2.9	8.3	..	13.2	9.3	2.7	2.8	138.3
Hungary	134.3	0.1	23.1	382.5	156.1	57.2	59.6	2.5	307.5	84.2
United Arab Emirates	3.3	..	..	..	..	..	..	0.8	2.8	..
Ireland	272.5	2.6	60.6	500.4	..	159.1	43.7	9.8	..	..

Source: UNODC

3.4 Conclusion

This chapter has shown the many advantages London has in terms of a highly educated workforce, with access to workers from around the world. It further highlighted many other aspects that make London a truly global city. However, risks to this position should not be overlooked, with many of these risks having arisen from London's success in the first place.

4. THE IMPACT OF FOREIGN OWNERSHIP ON HOUSING

4.1 Main Findings

- Savills reports that the proportion of sales to international buyers of existing homes in 'prime' London have increased from 23 per cent in 2005 to 40 per cent in 2014. Furthermore, international buyers for existing properties are concentrated in prime central London and the Canary Wharf area to the East. Considering only the role of non-UK residents, Knight Frank research found that overseas residents represented 28 per cent of buyers of prime central London homes in the 12 months to June 2013, rising to 49 per cent when considering only those properties that were new build developments.
 - However, overseas investors represent a small share of overall transactions. The Bank of England estimates that while foreign inflows are concentrated in certain sub-markets, overall they have accounted for around only 3 per cent of total residential property transactions in London.
 - Further, there is conflicting evidence that the more recent settlement experience of international migrants has had much effect on London house prices.
 - There is limited available evidence that vacancy rates of property are higher as a result of overseas investment. Instead, the available survey evidence suggests that the majority of homes purchased with overseas finance are occupied, either directly as the primary residence of a foreign national (or their family), as investments intended for the private rental market, and to a lesser extent, for use as a second home for short-term stays.
 - Further, there is also some survey evidence to suggest that following the economic crisis, the additional demand for new build properties from overseas buyers may have lessened the negative impact of credit constraints on construction activity, and enabled property developments that may otherwise not have been started at all.
-

4.2 Introduction

While international investment in the UK economy is typically highly prized, such investment in residential property is sometimes regarded with suspicion and concern. London is however a global city, attracting people from across the world to work, study, settle, and enjoy the economic, social and cultural opportunities that the capital offers. Londoners themselves are also international in their origins, and may purchase housing using international sources of funding.

As well as purchases from foreign residents in London, foreign ownership of housing in London is also a product of investment in second homes by non-UK nationals who continue to reside overseas, as well as real estate investments by overseas investors, including corporations. This chapter looks at the role and impacts of international, non-resident investors in residential property.

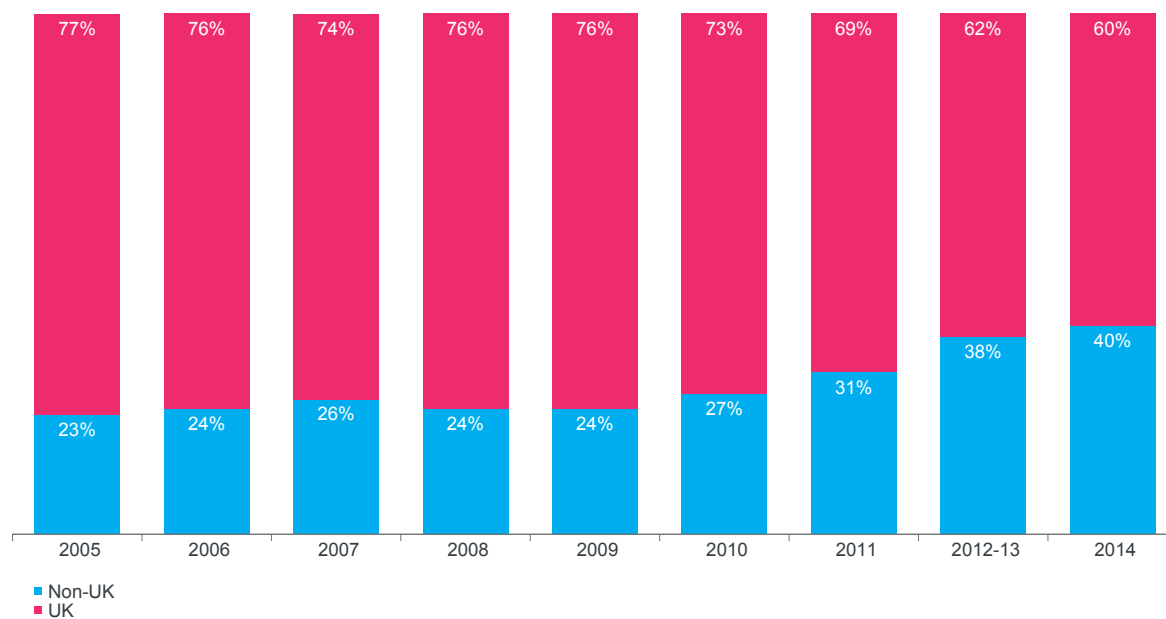
4.3 How has foreign investment in London housing changed over time?

There is no accurate or timely data that tracks foreign investment in residential property in England. It is therefore not possible to know for certain how much foreign investment there is in residential real estate, nor where that investment comes from. Regional statistics that are available on the role of foreign-born and international investors in residential property instead tend to come from the major estate agents and concentrate on 'prime locations' in central London.

One issue in understanding these statistics is that the definition of 'prime' changes over time so longer-term comparisons are difficult to interpret. It is also not clear how the agents distinguish between sales to foreign investors, UK expatriates, non-domiciled residents and/or Londoners who happen to have overseas origins, when completing the surveys.

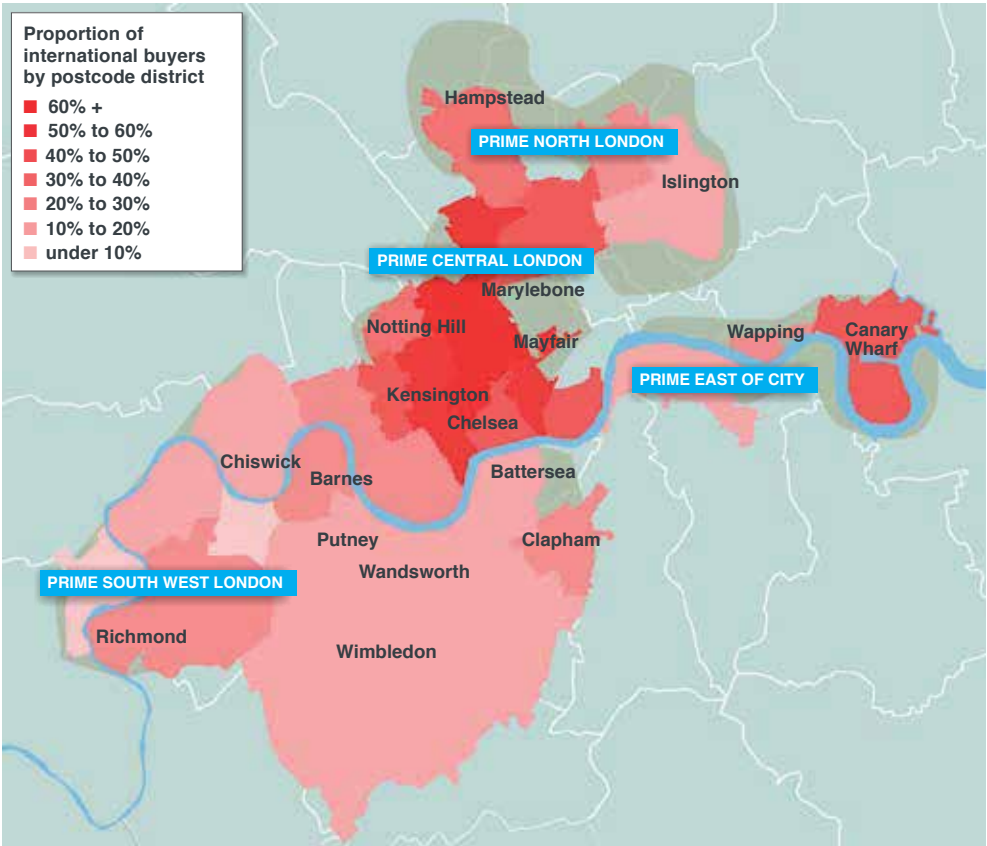
Looking at the trends over time, research by Savills¹⁶⁸ finds that, irrespective of residency, international buyers as a proportion of sales of existing homes in 'prime' London have increased from 23 per cent in 2005 to 40 per cent in 2014 (Figure 4.1). Savills report that international buyers for existing properties are concentrated in prime central London and the Canary Wharf area to the East (Map 4.1).

¹⁶⁸ Savills, July 2013, 'World in London 2013: capital appreciation'.

Figure 4.1: Trends in international buyers (re-sales), 2005 – 2014

Source: Savills, 'World in London 2013' and 'World in London 2015'

Map 4.1: International buyers in prime London (resale market)



Source: Savills, 'World in London 2012', July 2013

International buyers in London reflect the city's diversity

These increases are however broadly in line with Census data on London's growing foreign-born population. At the time of the 2011 Census, more than one in three London residents (37 per cent) were born outside the UK, up from 27 per cent in 2001.

ONS census analysis for England and Wales also shows that the proportion of non-UK born residents living in owner occupied accommodation increases with the length of residence¹⁶⁹. As international migrants settle and seek a longer-term future, they (or their families) have increasingly taken up house ownership as a result. It therefore follows that long-term residency of non-UK nationals is likely to be a primary driver of observed patterns of international ownership of housing seen in London.

Overseas investors represent a small share of overall transactions

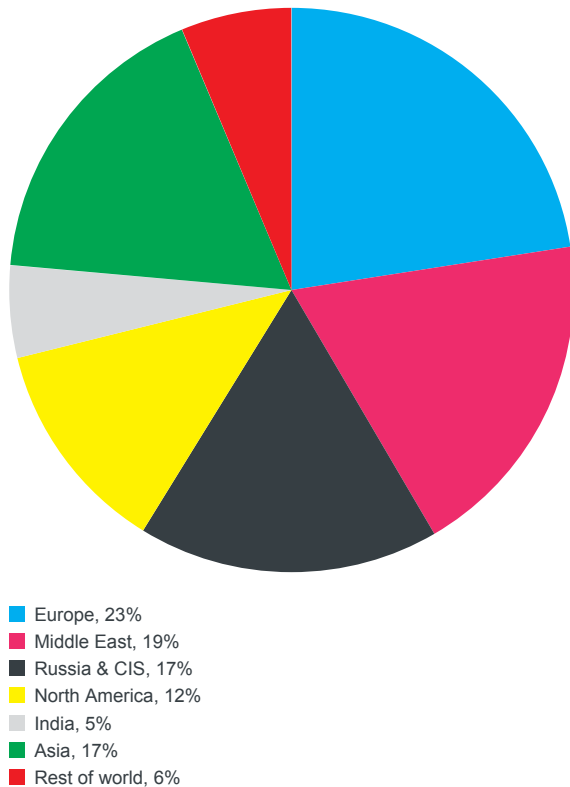
Considering only the role of non-UK residents, Knight Frank research¹⁷⁰ found that overseas residents represented 28 per cent of buyers of prime central London homes in the 12 months to June 2013, rising to 49 per cent when considering only those properties that were new build developments.

¹⁶⁹ While 18 per cent of recent arrivals (2007-2011) lived in owner-occupied accommodation, this figure rises to 78 per cent among those who had lived in the UK for more than 30 years. Source: ONS, November 2014, '2011 Census analysis: social and economic characteristics by length of residence of migrant populations in England and Wales'.

¹⁷⁰ Source: Knight Frank, October 2013, 'International buyers in London'.

Analysis of the prime London property purchases by non-residents shows that Europe and the Middle East are the main source of non-resident purchasers of London property, though this may include investments made by UK nationals based overseas (see Figure 4.2).

Figure 4.2: Prime central London overseas sales by world region of buyer, 2012/13



Source: Knight Frank research, 2013. Notes: Sales includes new build developments and second hand sales of existing properties. Rest of world includes Africa, Australasia and South America

While the overall figures for non-UK resident purchases may appear substantial, the 'prime' London area considered accounts for only a small share (8 per cent) of private housing stock in London¹⁷¹, and new builds represent an even smaller share of the overall market. Across London as a whole in the two years to June 2013, Knight Frank estimate that between 10 to 15 per cent of sales of new build sales in London were made to buyers normally resident overseas (ranging from 20 per cent in Inner London to less than 7 per cent in outer London). It also found no indication of a shift towards higher non-resident purchases in the two years to mid-2013¹⁷².

Putting this in the context of all property transactions, the Bank of England estimates that while foreign inflows are concentrated in certain sub-markets, overall they have accounted for around only 3 per cent of total residential property transactions in London¹⁷³.

¹⁷¹ Savills research estimate in 2014 that prime London as a whole accounts for only 8 per cent of London's private housing stock. This includes, for example, prime areas in central London such as Kensington and the West End, as well as those near Canary Wharf in the East, Hampstead and Islington in the North and Richmond, Wimbledon and Barnes in South West London). Source: Savills, July 2014, 'World in London 2014: Dynamics of a global city'.

¹⁷² This estimate is based on a sample of 3,500 new build properties in London purchased in the 24 months to June 2013. The sample includes developments in all Greater London boroughs, with sales ranging from £200,000 to £5,000,000. The residence of ownership is based on the proprietor record from Land Registry, and assumes that 'non-natural' owners (companies, trusts, etc.) represent international purchases, unless otherwise known. Source: Knight Frank, October 2013, 'International buyers in London'.

¹⁷³ The Bank's 3 per cent estimate is based on estimates by Knight Frank and Savills of the size and scale of foreign purchases, and assumptions about the scale of foreign purchases in the secondary market outside of 'prime' London. Source: Bank of England, November 2014, 'Financial Stability Report'.

4.4 The impact of international buyers on housing demand and prices in London

The price for housing should, in theory, reflect the balance between the supply of houses and the demand for living in them. Other things being equal, increased foreign demand to invest and live in London housing will therefore increase prices in the short term. Given what is known about the magnitude of foreign investment on London housing markets, this price effect is likely to be strongest in prime London areas where foreign demand is greatest. If inflows are not offset by a corresponding reduction in demand among UK residents, then this will increase the overall demand for (and price of) housing. As a result there are also likely to be wider 'knock-on' or 'ripple' effects as, for example, those who would previously have bought in prime areas, move further out and increase demand elsewhere. In the long term, if the housing market is able to fully adapt, the increase in demand should drive further construction of housing and an overall increase in housing supply.

There is however conflicting evidence that the more recent settlement experience of international migrants has had much effect on London house prices. For example, in an analysis of the impact of international migration on house prices from 2003-2008, Meen (2012) finds that price effects are only modest. This is due to lower demand for housing among migrants, as well as the offsetting effects of prices on rates of household formation, and outflows of domestic residents which lead to a dispersion of the price effects across regions¹⁷⁴.

On the other hand, research by the Said Business School in Oxford¹⁷⁵ suggests that there is a direct correlation between London house prices in areas with a higher share of certain migrants, and political and economic uncertainty in the country of origin. The paper highlights however that this observed relationship may be partly driven by migrants leaving their country of origin to join their compatriots in London, but also result from capital outflows and investments by high-net worth individuals seeking a safe haven.

The direction of international investments is also likely to be affected by exchange rate movements. The appreciation of sterling against a number of currencies over the last two years¹⁷⁶ means that the price of London housing has increased for many overseas buyers, perhaps reducing the attractiveness of London property as compared to the past few years. At the same time, those overseas buyers holding London property may stand to gain more from the recent house price increases as a result of foreign exchange movements, which may increase the incentive to sell up.

¹⁷⁴ Meen, G., November 2012, 'The adjustment of housing markets to migration change: lessons from modern history', *Scottish Journal of Political Economy*, Vol. 59, No. 5.

¹⁷⁵ Badarinza, C., & Ramadorai, T., October 2013, 'Home away from home: Safe haven effects and London house prices'. SAID Business School.

¹⁷⁶ GLA Economics, November 2015, 'London's economic outlook: November 2015'.

The impact of overseas investors on house prices

Perhaps the main concern expressed about overseas purchases of flats and houses in London is however that some of this may represent speculative demand, over and above the physical need for a home, which can inflate property prices. It is also argued that foreign investment may also increase the volatility of housing markets if, for example, international money suddenly enters (or leaves) in response to changing economic conditions and/or exchange rates.

Considering the role of overseas investors, evidence from Paris suggests that overseas buyers were responsible for only 2 per cent of the observed increase in Paris house prices between 1993 and 2008 (3 per cent of an overall increase in prices of 150 per cent)¹⁷⁷. In other words, 98 per cent of the house price rises were attributed to domestic factors and increased demand from resident buyers. Despite an increase in the share of overseas buyers as a total of all transactions (from 4 to 8 per cent), and a tendency for them to pay over 20 per cent more on average, the research concluded that there was an insufficient number of overseas investors, concentrated in niche, high-end property markets that had little bearing on the rest of the Paris housing market i.e. there was limited evidence of a ripple effect resulting from foreign demand that economic theory may suggest.

While the origins and likely patterns of foreign investment in Paris are likely to differ somewhat to those in London, non-resident foreign investors in both cities are similarly concentrated in niche markets, representing a small proportion of the overall housing market. It remains possible however that a 'ripple effect' may be more pronounced in London if, for example, the housing stock available for purchase in areas neighbouring prime locations are close substitutes. For this reason, the ONS economic review in June 2014 cited 'an increase in the level of foreign demand' as a possible driver of house price rises in London, in addition to the likely role played by increasing employment, mortgage finance and consumer confidence¹⁷⁸.

¹⁷⁷ Sotura, A., December 2011, 'Les étrangers font-ils monter les prix de l'immobilier? Estimation à partir de la base de la chambre des Notaires de Paris, 1993-2008'. Thesis directed by Piketty, T.

¹⁷⁸ ONS, June 2014, 'Economic Review'.

The overall impact on the housing market depends not only on purchases, but also on their subsequent use.

Foreign ownership of housing in London may have knock-on distortionary effects if investors choose to leave their investment units empty, and thereby directly reduce the supply of available housing in a given area. There is however little evidence that vacancy rates of property are higher as a result of overseas investment. Instead the number of properties recorded as empty or vacant has been decreasing in London in recent years¹⁷⁹, as has the number of dwellings recorded as second homes¹⁸⁰, although it remains possible that investors, whether domestic or from overseas, may not report property as empty or second homes, but still only occupy their properties for only part of the time.

The survey evidence available from property advisers suggests that the vast majority of homes purchased with overseas finance are however occupied, either directly as the primary residence of a foreign national (or their family), or as investments intended for the private rental market, while their use as a second home for short-term stays is reportedly less prevalent. For example, Savills estimate that few prime area new build sales were to international second home buyers¹⁸¹, although occupation of these residences is still expected to be lower than 100 per cent. Similarly, a 2014 Jones Lang LaSalle (JLL) transaction survey of Asian buyers found that around 85 per cent intended to rent out the property, with the balance being a mix of main residencies for children in higher education, or for use as a second home¹⁸².

It remains possible however that demand from foreign investors can transform a traditionally non-traded good, housing, into a tradable one. If such purchases are significant, this can have a subsequent distorting effect not only on prices, but also on the types of properties built (size, layout, location, style) if the preferences of overseas investors systematically differ from those of permanent residents. Since housing is a durable good, this in turn may lock-in and lead to mismatches in the types of housing supplied and the needs of London residents.

¹⁷⁹ Based on Council Tax data, the number of recorded empty homes in London was at a historical low of 56,270 empty homes in 2014, equivalent to 1.7 per cent of total stock. Of these, there were 20,800 homes in London that had been empty for more than six months, equal to 0.6% of the stock and also a record low. These figures may however under-count empty homes since the removal of empty property discounts from Council Tax in many areas has reduced the incentive for owners to report homes as empty. Source: DCLG, Housing live table 615.

¹⁸⁰ In 2014 there were an estimated 48,390 second homes in London, down from 53,150 in 2012 and representing around 1.4 per cent of the total housing stock and . Source: DCLG, Council tax base.

¹⁸¹ Source: JLL, March 2014, 'International investment in London residential: understanding the benefits'.

¹⁸² An estimated 750 of the 97,000 Greater London sales in 2012 were for use as second homes. Source: Savills, 2013, 'World in London 2013: capital appreciation'.

Overseas investments in new build developments may increase housing supply

At the margin, the potential price effects of foreign demand for investment properties and second homes in particular wards, may also be offset by the impact of foreign investment on construction activity. Since overseas buyers invest disproportionately in new build London properties, and often purchase property ‘off-plan’ (i.e. prior to completion), it is arguable that construction activity of new buildings in London is higher than it otherwise would have been in the absence of overseas investment. It would be difficult, however, to determine the magnitude of any such impact, or determine the number of properties in London purchased by non-residents which add to the housing stock.

Based on a series of interviews with 26 private developers, in a 2012 assessment of the barriers to housing delivery in London, Molior concluded that ‘in the absence of an export market, many London residential schemes simply would not commence construction’¹⁸³. Off-plan purchases in this regard, may have helped de-risk developments (which can be very costly to stop) by providing cash for construction and thereby guarantee finance supply of market housing. This may be particularly important for London’s high-density, capital intensive projects with relatively longer lead-in times. Ongoing research at the LSE¹⁸⁴ supports this view, contesting that since UK funders may be credit constrained or risk averse, inward overseas investments were particularly important to initiate and/or speed up the construction of new developments during the financial crisis. JLL residential argue that foreign investment at this time provided a much needed stimulus to the local residential construction industry and local suppliers¹⁸⁵.

To the extent that this construction feeds into supplying housing to London residents, either by renting them out, or by opening up further units for sale directly to domestic buyers, foreign inflows of finance may increase the overall housing stock that is available in London.

Through planning agreements and the Community Infrastructure Levy, foreign investment may have also contributed to the delivery of affordable homes in London. For example, Savills estimate that off-plan sales of new builds to international buyers helped to ‘finance 3,000 new affordable homes that may otherwise not have been built’¹⁸⁶. It remains difficult, however, to determine the extent to which these investments have been truly additional. In the case of large-scale private rented developments (such as student halls), offshore financing may also bring institutional experience of professional property management, and has the potential to raise to status of the private rented sector to being tenure of choice for an increasingly flexible workforce.

¹⁸³ GLA, ‘Barriers to housing delivery: what are the market-perceived barriers to residential development in London?’, December 2012. Report by Molior London for the GLA.

¹⁸⁴ LSE, February 2013, ‘Housing in London: addressing the supply crisis’.

¹⁸⁵ JLL, March 2014, ‘International investment in London residential: understanding the benefits’.

¹⁸⁶ Savills, July 2013, ‘World in London 2013: capital appreciation’.

Smoothing or exacerbating the economic cycle

In the aftermath of the 2008/09 recession, weaknesses in the domestic market combined with funding restrictions meant that investors based in countries less affected by the shock, may have served to dampen the effects of the recession on London's housing and construction markets. Based on a 2014 assessment of who buys new homes in London, the British Property Federation concluded that such overseas investors were 'instrumental' in maintaining a level of housing development in London', which would otherwise have stalled due to a lack of cash or credit¹⁸⁷.

While the limited evidence available suggests that foreign investment in housing may have helped to smooth out the full impact of the downturn, the risk remains that demand from overseas may serve to amplify the business cycle in an upturn, and thereby exacerbate house price volatility.

A further risk may be that, since in the case of non-UK residents, the ongoing revenues derived from rental incomes and capital gains from future sales may subsequently flow out of the UK. In the absence of offsetting inflows resulting from non-resident home ownership (if for example, foreign buyers decide to visit the UK more regularly on business or holiday than they otherwise would), such outflows will count as a negative entry in terms of London's balance of payments.

¹⁸⁷ British Property Federation, November 2014, 'Who buys new homes in London and why?'. Prepared by Molior London.

4.5 Experience from other countries

Foreign participation in the housing market is not limited to London or the UK. For many decades, non-residents have purchased homes in other global cities. According to the 2015 annual survey by the Association of Foreign Investors in Real Estate (AFIRE), London is considered by its members to be the second city in the world for real estate investment opportunities among investors, behind New York and ahead of San Francisco, Tokyo and Madrid which complete the top five¹⁸⁸.

In these global cities, as in London, overseas buyers tend to acquire high-end, new build properties in central districts. Knight Frank, for example, estimated that overseas buyers accounted for around a third of sales over \$3 million (equivalent to the top 10 per cent of the New York housing market)¹⁸⁹ in 2013. Similarly, acquisitions by foreign investors accounted for a reported 20 per cent of total market transactions in Tokyo's central district¹⁹⁰, while nearly a third (31 per cent) of all home buyers in Singapore were reported to be foreign investors during 2011¹⁹¹.

Based on a review of industry reports, there are few restrictions on foreign purchases of residential property in many developed economies including Canada, France, New Zealand, and the US. Some of these economies have however increased property taxes, or subject foreign/overseas investors to tax on capital gains arising from future property sales (in line with the treatment of domestic residents).

In the March 2015 budget, the UK introduced a tax on future capital gains made by non-residents disposing of UK residential property. This brought the UK in line with other investor markets throughout Europe, Canada and the US, which similarly treat investments in housing differently to other forms of foreign investment (which aren't typically subject to capital gains), in order to ensure non-residents are not treated preferentially to domestic buyers. In contrast, Singapore and Hong Kong provide examples of where foreign buyers face additional stamp duties than the equivalent rates faced by native residents.

Other countries including Australia, Denmark and Switzerland require approval for foreign and/or non-resident investment in housing 'to ensure that any foreign, non-resident purchases are in the public interest'¹⁹². In Australia, for example, foreign purchases of established dwellings are restricted to residents with long-term visas or the right to settle. Singapore similarly has a specific body (the Singapore Land Authority) responsible for processing approvals. At the extreme, in China, India and Indonesia non-nationals are not generally permitted to purchase residential property¹⁹³.

¹⁸⁸ AFIRE, 2015, 'Foreign Investment Survey: ranking of global cities for real estate investment'.

¹⁸⁹ Knight Frank, July 2013, 'Residential research: US insight'.

¹⁹⁰ Want China Times, January 2015, 'Low property prices in Japan drew foreign buyers in 2014'. Accessed on 03/11/15



¹⁹¹ Savills, February 2012, 'Profiles of foreign buyers in Singapore'.

¹⁹² Civitas, February 2014, 'Finding shelter: overseas investment in the UK housing market'.

¹⁹³ Reserve Bank of Australia, June 2014, 'Foreign investment in residential real estate'.

An overview of some of these measures and indicators of their impacts, where available, is provided in Table 4.1 below.

Table 4.1: Measures on foreign/overseas investment in housing in selected countries

Country	Foreign buyer screening and taxation	Evidence of impact
Australia 	<p>Since 2008 foreign non-resident buyers restricted to new build stock, off-plan developments or vacant land that adds to the housing stock. Applications are subject to approval by the Foreign Investment Review Board (FIRB)¹⁹⁴.</p> <p>Investments by temporary residents in established properties are only permitted whilst in Australia.</p> <p>In the state of Victoria, a 3% stamp duty surcharged will be applied to foreign buyers of residential real estate from 1 July 2015¹⁹⁵.</p>	<p>Approvals (23,428) and investment levels (AU\$34.7bn) in 2013/14 are the highest on record¹⁹⁶.</p> <p>Increases the demand for, and supply of housing.</p> <p>Not considered a significant driver of house prices¹⁹⁷.</p> <p>Victoria tax is expected to bring around AU\$279m.</p>
France 	<p>Vendors liable to capital gains tax at a rate of 19% for EEA residents and 33.3% for non-EEA residents¹⁹⁸.</p> <p>10% CGT reductions are available for every year of ownership over 5 years, and exempt after 15 years.</p>	
Hong Kong 	<p>Since October 2012, 15% foreign buyer's stamp duty (BSD) for corporate and non-resident buyers.</p> <p>Tax from 10-20% on the sale of homes held for under three years, and doubled for sales of HK\$2 million.</p>	<p>Foreign buyer numbers, the majority from mainland China, are down from 41% of the prime market in 2011 to 18.5% in 2013.</p>
Japan 	<p>A Japanese citizen guarantor is required to access mortgage finance but no explicit restrictions on foreign, non-resident buyers.</p> <p>Capital gains tax at the same rate as residents: 30% if held less than 5 years (15% if held for longer), but non-residents are not required to pay municipal tax¹⁹⁹. Since 2013 there is also an added 'reconstruction tax' of 2.1%.</p>	
Portugal 	<p>Portuguese golden residence permit granted to investors in property of at least €500,000, since October 2012.</p> <p>Minimum required stay in Portugal of 7-14 days.</p> <p>Possibility of permanent residency after 5 years, and nationality after 6 years.</p>	<p>734 visas issued in the first 18 months. Strong take-up by Chinese nationals (79 per cent of the total).</p>

¹⁹⁴ Australia Government FIRB, February 2012, 'Guidance note 3: Australia's foreign investment policy residential real estate'.

¹⁹⁵ Victoria Department of Treasury and Finance, May 2015, '2015/16 Victorian State budget'.

¹⁹⁶ Australia Government FIRB, 'Annual reports 2008/09 to 2013/14'. Accessed on 03/11/15

¹⁹⁷ Parliament of Australia, November 2014, 'Report on foreign investment in residential real estate'. Canberra

¹⁹⁸ France Ministry of Finance and Public Accounts, 'Vous vendez un bien immobilier situé en France (plus-value immobilière)'. Accessed on 03/11/15

¹⁹⁹ Japan Property Central, 'Capital gains tax'. Accessed on 03/11/15

Singapore 	<p>Foreign investors require approval and cannot own all apartments within a building.</p> <p>Seller's stamp duty from 4-16% of the sale price if property is sold within 4 years.</p> <p>Since end 2011, 'additional buyer's stamp duty (ABSD) on non-permanent residents and companies (15%), and extra 3% duty on residents' purchases of second homes.</p>	<p>Foreign buyer numbers have declined: foreign purchases accounted for 18% in 2011, but returned to 2007 levels of 6-8% by 2012-2014²⁰⁰.</p> <p>Prices have stabilised. Annual house price rises have slowed from 18% in 2010 to 2.8% in 2012²⁰¹.</p>
Spain 	<p>Spanish 'golden visa' granted to investors in property of at least €500,000, since October 2013.</p> <p>Requirement to visit Spain at least once in the first 2 years, and once more in the subsequent 3 years.</p> <p>Possibility of permanent residency after 5 years, and nationality after 10 years.</p>	<p>324 people signed up to the scheme in the first year to September 2014, valued at €256.1m²⁰².</p>
Switzerland 	<p>Foreign investors can only purchase one property as a second home, and cannot sell within 5 years of purchase.</p> <p>Temporary residents can purchase property without authorisation required.</p>	
New York, US 	<p>Capital gains at the same rate as residents of 10% (rising to 35% if the buyer is a corporation).</p> <p>70 per cent of the real estate market in Manhattan is cooperatives ('co-ops') – a membership based housing complex. Co-op boards make the decision on who can buy and when to sell, which can result in restrictions on overseas investors.</p>	<p>Difficult for overseas investors to participate in 'co-ops', which concentrates foreign demand on the market for 'condos' or flats.</p>
UK 	<p>Capital gains at the same rate as residents of 18% (rising to 28% for higher rate taxpayers) as of April 2015²⁰³.</p> <p>Gains accrued by non-resident investors prior to April 2015 are exempt from the tax.</p>	<p>HMRC expects the measure to raise £130 million in the first four years from April 2015.</p> <p>The measure is not expected to have any significant economic impacts²⁰⁴.</p>

Sources: Savills, 'World in London 2014' and 'World in London 2012', unless otherwise cited in footnotes.

²⁰⁰ JLL, 8 September 2014, 'The changing profile of foreign players in the Singapore residential market'.

²⁰¹ Monetary Authority of Singapore (MAS), 21 May 2013, 'Securing Price Stability as Singapore Restructures - Speech by Mr Ravi Menon, Managing Director of MAS, at the Asian Bureau of Financial and Economics Research'.

²⁰² The Local, November 2014, 'Slow start for Spain's golden visa scheme'.

²⁰³ HM Revenue and Customs, 'Personal tax – guidance: Capital Gains Tax for non-residents: UK residential property'. Accessed on 03/11/15

²⁰⁴ HM Revenue and Customs, 'Capital gains tax: non-UK residents and UK residential property'. Accessed on 03/11/15

5. FOREIGN DIRECT INVESTMENT

5.1 Main Findings

- London contributes to almost two-fifths of all inbound FDI projects to the UK.
- North America accounts for almost half of all inbound FDI projects to London. That's a greater proportion than for the UK as a whole.
- Inward investment to London follows London's industrial specialisations. Most inbound investment projects are in London's ICT & electronics, creative, business and financial services sectors.
- London is also the origin of investment to the rest of the world, primarily focussed in business services and finance.
- Between 2010/11 and 2014/15, compared to other global cities, London ranked second for the number of inward investment projects. It was third for the capital investment associated with them, and fourth for the number of jobs created.

5.2 Summary

FDI acts as a means of increasing productivity; a new entrant into a market will have ideas, methods or technologies which enable productivity to increase. New entrants have methods which increase productivity, but also encourage domestic firms to also look to improve productivity, through assimilation of methods or investment in innovation. However new entrants, if they have technology far in advance of domestic firms, may mean that lower productivity firms will be forced to leave the market; the net benefits from inward investment will likely be through improvements in total factor productivity.

5.3 Inbound FDI to London and the UK

London's status as a global business location is shown through the examination of statistics on inward foreign direct investment; how it stands in the context of the UK as a whole, but also when compared to other major global cities.

Data on inbound FDI is accessed through fDi Markets, a real-time data resource providing details on new inbound FDI investments, the origin and destination locations, the industrial sector, the number of new jobs estimated to be created through the investment, and the level of capital investment related to it. Data on jobs and capital investments are estimated; however numbers of FDI projects are more certain. In addition, this chapter also provides data from London & Partners, the Mayor of London's international promotion agency, as a means of providing supporting evidence to the conclusions outlined in this chapter; as well as data from the Ernst & Young European Investment Monitor.

According to fDi Markets, in the 2014/15 financial year, there were a total of 373 inbound FDI projects to London, however this is a fall of 5.8 per cent on a year earlier. Data on inbound FDI fluctuates year-on-year, however a useful analysis to make relates to London's proportion of total UK inbound FDI; which finds that London accounts for over a third of total inbound UK FDI, as shown in Table 5.1.

Table 5.1: London's proportion of inbound FDI projects by financial year

Financial Year	Proportion of total UK inbound FDI, London (%)
2010/11	35.4%
2011/12	38.7%
2012/13	39.5%
2013/14	38.0%
2014/15	36.6%

Source: fDi Markets; GLA Economics calculations

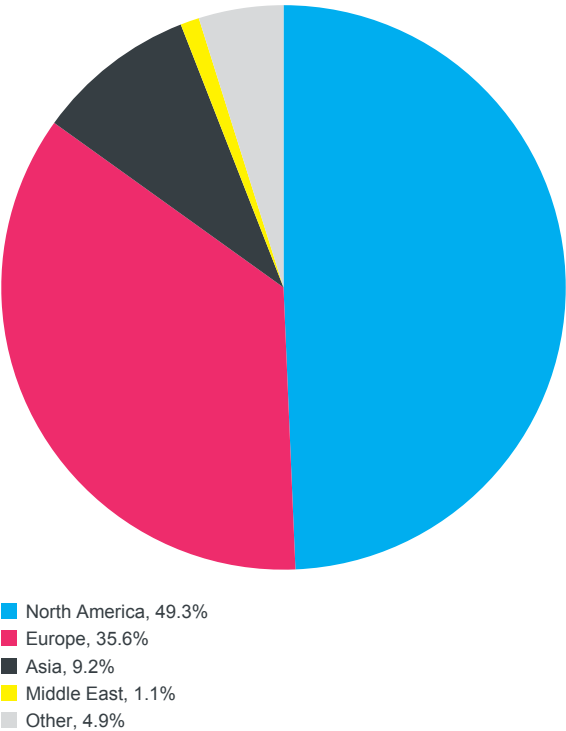
Table 5.2: Number of inbound FDI projects to London, by country, 2014/15 financial year

Country	Number of inbound FDI projects	Proportion of inbound FDI projects (%)
United States	173	46.4%
France	20	5.4%
Spain	18	4.8%
Italy	17	4.6%
Germany	15	4.0%
Australia	14	3.8%
Canada	10	2.7%
Switzerland	10	2.7%
Netherlands	9	2.4%
Japan	9	2.4%

Source: fDi Markets; GLA Economics calculations

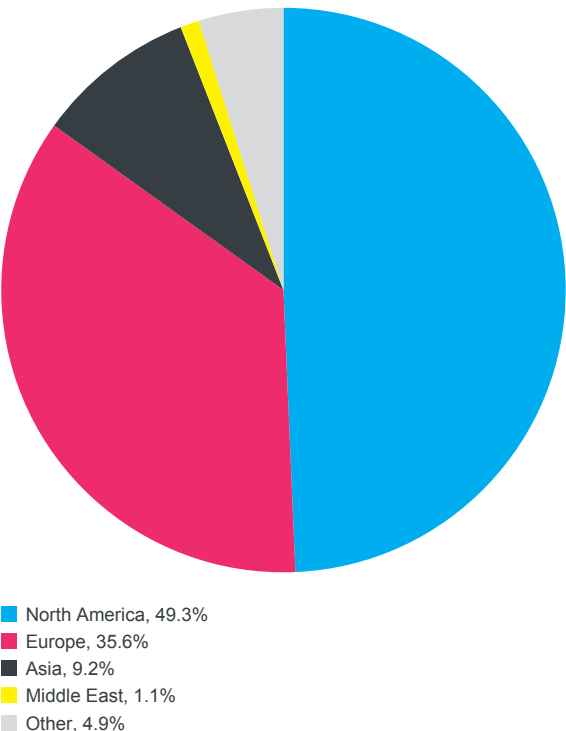
A more useful analysis would be to look at inbound FDI investments to London by continents and finds that North America (which includes the United States and Canada) continues to dominate, despite the European Union being the UK's largest trading partner. Figures 5.1 and 5.2 provide data on the share of inbound FDI projects to London, by continent; and shows that there have been only minor changes in proportions over the last five years, despite the increasing economic strength and importance of emerging markets.

Figure 5.1: Inbound FDI projects by continent, 2010/11 financial year



Source: fDi Markets; GLA Economics calculations

Figure 5.2: Inbound FDI projects by continent, 2014/15 financial year



Source: fDi Markets; GLA Economics calculations

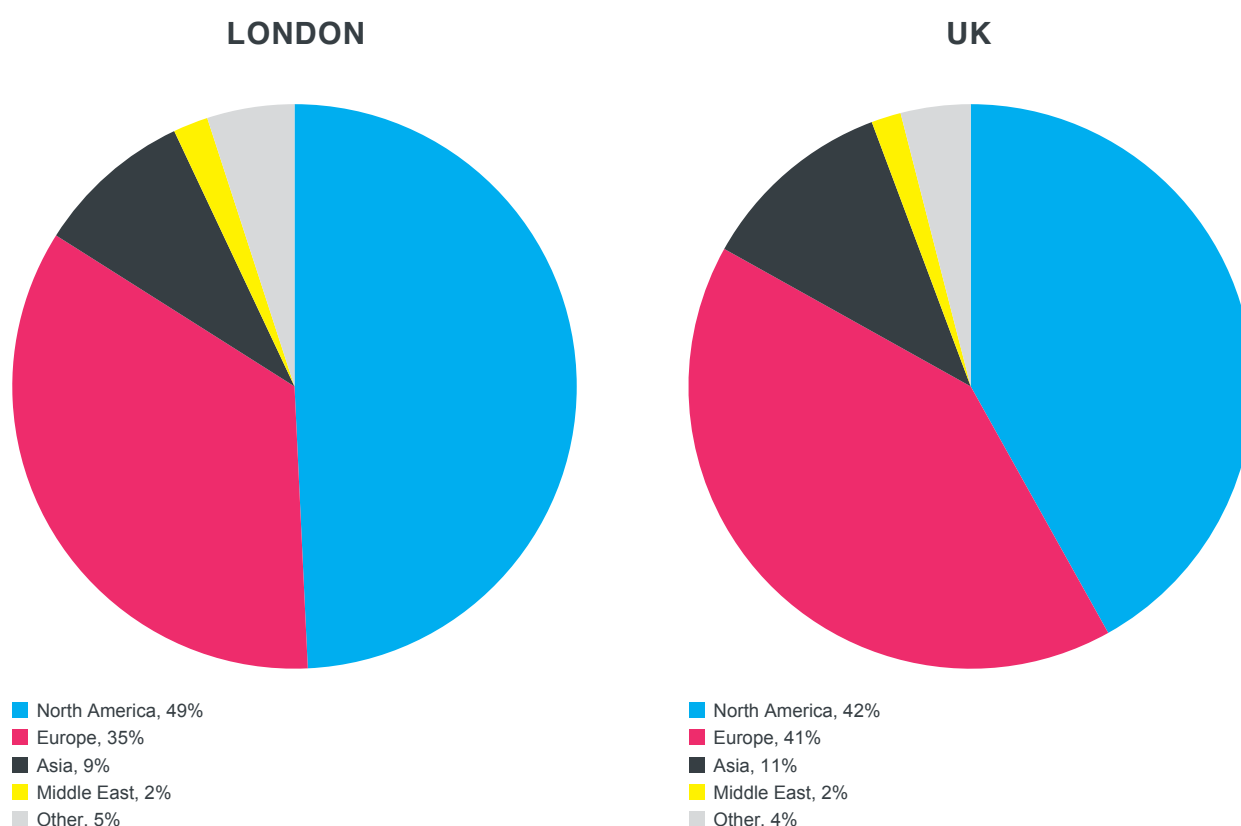
Comparing to the UK as a whole, it can be seen that there is a greater share of inbound FDI projects originating from North America going to London. Whereas for the UK as a whole, there is a significantly greater proportion of inbound FDI originating from Europe as is shown in Table 5.3.

Table 5.3: Proportion of inbound FDI projects, to London and the UK, by continent, five year financial year average

Continent	Proportion of London inbound FDI projects (%)	Proportion of total UK inbound FDI projects (%)
North America	49.2%	41.9%
Europe	34.7%	41.2%
Asia	9.0%	11.2%
Middle East	2.0%	1.7%
Other	5.0%	4.0%

Source: fDi Markets; GLA Economics calculations

Figure 5.3: Proportion of inbound FDI by continent, London and the UK, five-year financial year average



Source: fDi Markets; GLA Economics calculations

FDI is a major source of employment, and in a city such as London, FDI will take advantage of the high skills base in the capital, developed as a result of domestic and international migration. Agglomeration that results from inward investment will generate employment from not only the investments themselves, but also from the supported employment in other industries; for example, a financial services company may look to take advantage of professional services such as legal and accountancy, who in turn, with more clients in London, may demand more resource to meet this demand. The following table shows that in the five financial years of 2010/11 to 2014/15, inbound FDI to London has been estimated to generate 88,200 gross jobs (those through the investments themselves, however it is important to note that this does not take account of jobs created through supported demand, will not take account of people moving between jobs, and does not take account of the success and duration of the investments).

Table 5.4 shows also, that whilst London receives over a third of total inbound FDI projects, they are less labour intensive than the UK as a whole. In the 2010/11 to 2014/15 financial years, London received 37.6 per cent of total inbound projects, however accounted for only just under a quarter of jobs (24.1 per cent).

Table 5.4: Job creation through inbound FDI investment to London and the UK, 2010/11 to 2014/15 total

Origin Country	Estimated Job Creation, London	Estimated Job Creation, UK
United States	34,741	131,976
China	11,381	15,373
France	4,798	24,670
Malaysia	3,396	5,114
Italy	2,788	5,576
Switzerland	2,769	9,726
Germany	2,745	36,501
Japan	2,702	13,967
Spain	2,500	9,812
Australia	1,949	6,941
All Countries	88,246	365,640

Source: fDi Markets; GLA Economics calculations

5.4 Inbound FDI to London by industry sector

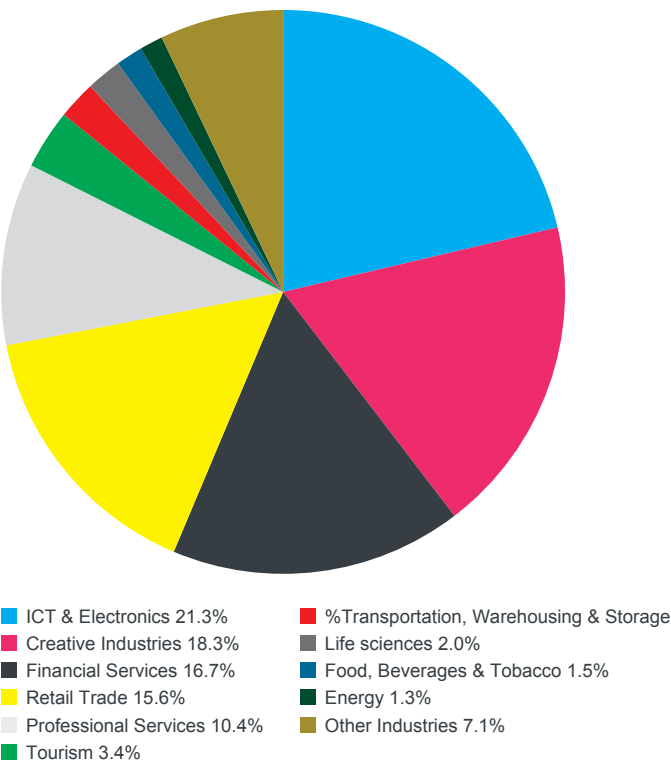
Data from fDi Markets outlines the industrial sector of inbound FDI, although these do not match directly with the Standard Industrial Classification set out by the Office for National Statistics. Table 5.5 shows the connection between London's specific areas of specialisation (as outlined within Chapter 1 through the Index of Specialisation) and data on inbound FDI; with ICT, creative, and financial and professional services dominate FDI over the last five years. Alongside retail trade, these five areas comprise over three quarters of total inbound FDI projects, as shown by Figure 5.4.

Table 5.5: Number of inbound FDI projects to London, by broad industry sectors

Sector	2010/11	2011/12	2012/13	2013/14	2014/15	Total
ICT & Electronics	63	91	102	80	64	400
Creative Industries	56	78	77	72	60	343
Financial Services	69	70	58	59	58	314
Retail Trade	51	65	42	67	68	293
Professional Services	31	41	37	40	47	196
Tourism	7	15	19	12	11	64
Transportation, Warehousing & Storage	4	3	5	13	16	41
Life sciences	9	8	1	13	7	38
Food, Beverages & Tobacco	3	7	3	11	5	29
Energy	3	10	4	3	5	25

Source: fDi Markets; GLA Economics calculations

Figure 5.4: Proportion of inbound FDI projects to London, by broad industry sectors



Source: fDi Markets; GLA Economics calculations

When broken down further into industrial sub-sectors, Table 5.6 shows the importance of the information and communication, finance and professional services sectors. Nine of the top ten industrial sub-sectors could be considered to be part of these three industry sectors, as defined by sections I (Information and Communication), K (Financial and Insurance Activities) and M (Professional, Scientific and Technical Activities) of the Standard Industrial Classification 2007.

Table 5.6: Number of inbound FDI projects to London by industrial sub-sector

Sector	2010/11	2011/12	2012/13	2013/14	2014/15	Total
Software publishers, except video games	54	64	83	91	67	359
Internet publishing & broadcasting & web search	18	39	42	43	35	177
Clothing & clothing accessories	31	40	22	32	51	176
Corporate & investment banking	30	24	23	13	17	107
Advertising, PR, & related	16	23	20	11	12	82
Investment management	10	19	10	13	13	65
Professional, scientific & technical services	17	15	6	12	15	65
Custom computer programming services	10	9	13	11	16	59
Legal services	7	14	9	8	16	54
Retail banking	10	12	6	9	4	41

Source: fDi Markets; GLA Economics calculations

5.5 London as an origin of FDI

While much attention is focussed on London being a destination for inward investment, it is important to note that London is also an origin of investment, with London based businesses expanding their activities internationally. Table 5.7 shows that London's businesses invest in a wide range of geographical areas, with the United States being the predominant location for outbound FDI.

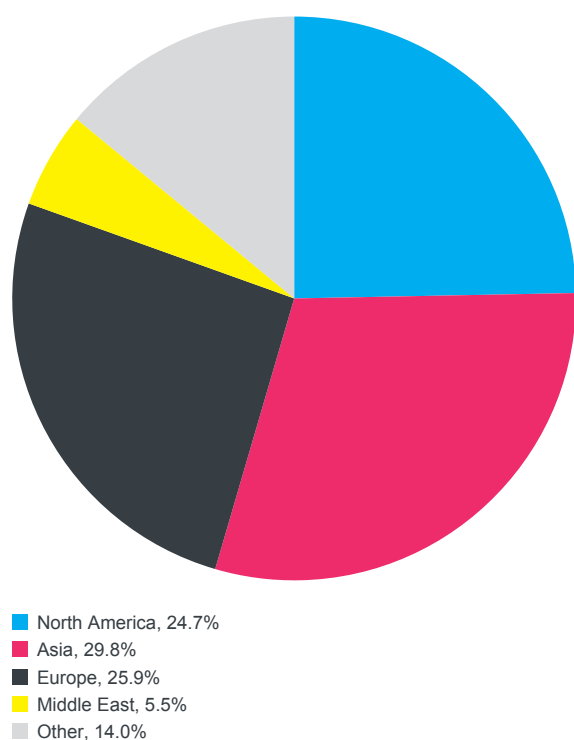
Table 5.7: Number of inbound FDI projects originating from London

Country	2010/11	2011/12	2012/13	2013/14	2014/15	Total
United States	147	142	140	146	147	722
China	57	61	45	30	32	225
Singapore	43	46	32	49	38	208
Germany	37	40	46	42	33	198
Australia	52	36	30	38	30	186
India	46	49	25	20	33	173
Hong Kong	29	36	34	22	17	138
Spain	26	25	33	24	21	129
France	17	23	17	49	22	128
UAE	27	23	26	27	21	124

Source: fDi Markets; GLA Economics calculations

Figure 5.5 analyses this further and shows that over the last five years, investment into Asia has overtaken that of Europe and North America. Inbound FDI investment to London comes predominately from North America and Europe (around four-fifths), however outward FDI is much more globally dispersed.

Figure 5.5: Proportion of FDI projects originating from London, by continent, 2010/11 – 2014/15



Source: fDi Markets; GLA Economics calculations

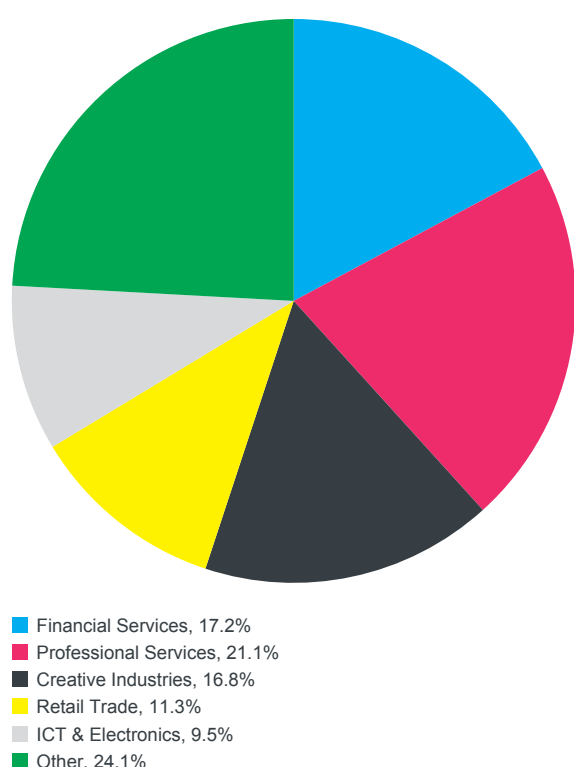
Similar trends as for inbound FDI are seen in outward FDI from London when looking at the industrial sectors of businesses based in London investing abroad (see Table 5.8); with the importance of Professional and business services, finance, and information and communication sectors taking precedence. This is shown further in Figure 5.6, with professional and financial services accounting for almost 40 per cent of total outward FDI from London. Table 5.9 provides further detail on outbound FDI by industry sub sectors.

Table 5.8: Number of outbound FDI projects from London, by industry sector

Industry sector	Number of outbound FDI projects
Professional services	820
Financial services	668
Creative industries	652
Retail trade	438
ICT & electronics	370
Food, beverages & tobacco	132

Source: fDi Markets; GLA Economics calculations

Figure 5.6: Proportion of FDI projects originating from London, industry sector, 2010/11 – 2014/15



Source: fDi Markets; GLA Economics calculations

Table 5.9: Number of outbound FDI projects from London, by industry sub sector

Industry sector	Number of outbound FDI projects
Business services	1,350
Financial services	593
Software & IT services	480
Textiles	337
Communications	221
Consumer products	138
Real estate	104
Transportation	82
Metals	77
Beverages	58

Source: fDi Markets; GLA Economics calculations

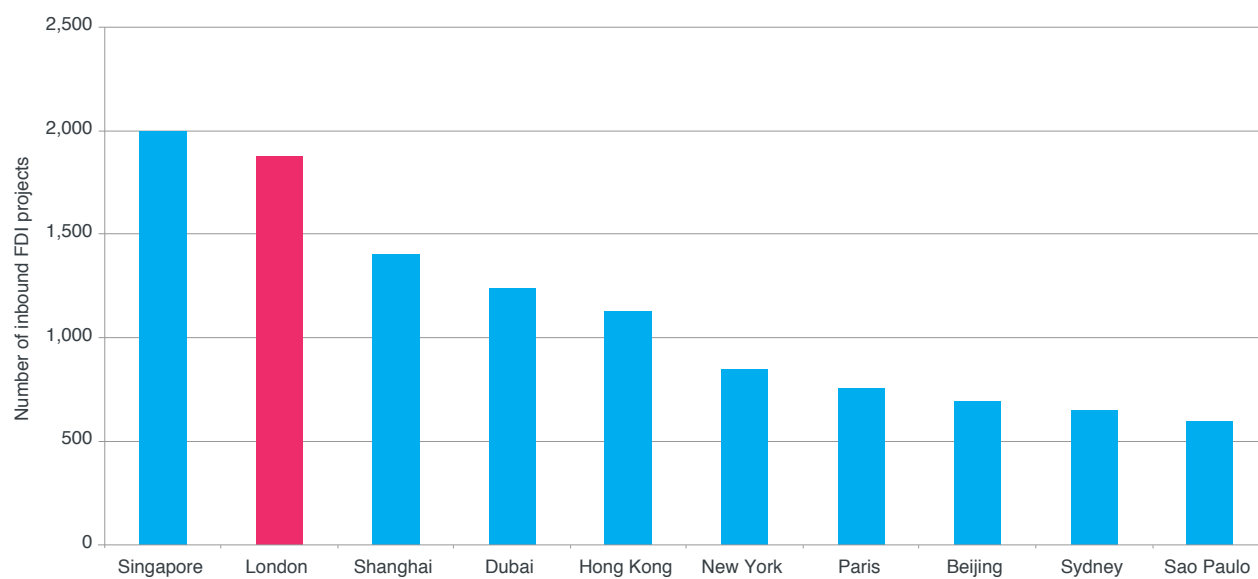
5.6 International comparisons of inbound FDI

London competes for investment on the global stage and promotes the Capital's offering to internationally mobile businesses. The attractiveness of the Capital to people and business, as outlined in Chapter 3, is shown through the level of inward investment in the Capital when compared to other cities; however, while London performs very strongly on the global stage, in terms of the number of investments, and the scale (as shown through estimated job creation and capital expenditure related to the investments), over the course of the five financial years to 2014/15, London has not been the leading destination for investment. Table 5.11 and Figure 5.7 shows that in terms of absolute numbers of inward investment projects, London ranks second behind Singapore, but clearly ahead of other major global cities.

Table 5.11: Number of inbound FDI projects by city; 2010/11 to 2014/15

City	2010/11	2011/12	2012/13	2013/14	2014/15	Total
Singapore	380	400	376	447	397	2,000
London	332	406	369	396	373	1,876
Shanghai	325	303	259	279	240	1,406
Dubai	245	249	254	261	233	1,242
Hong Kong	235	252	235	207	198	1,127
New York	161	144	153	203	191	852
Paris	144	144	144	188	137	757
Beijing	169	149	155	118	99	690
Sydney	130	120	143	123	134	650
Bangalore	107	105	86	76	103	477

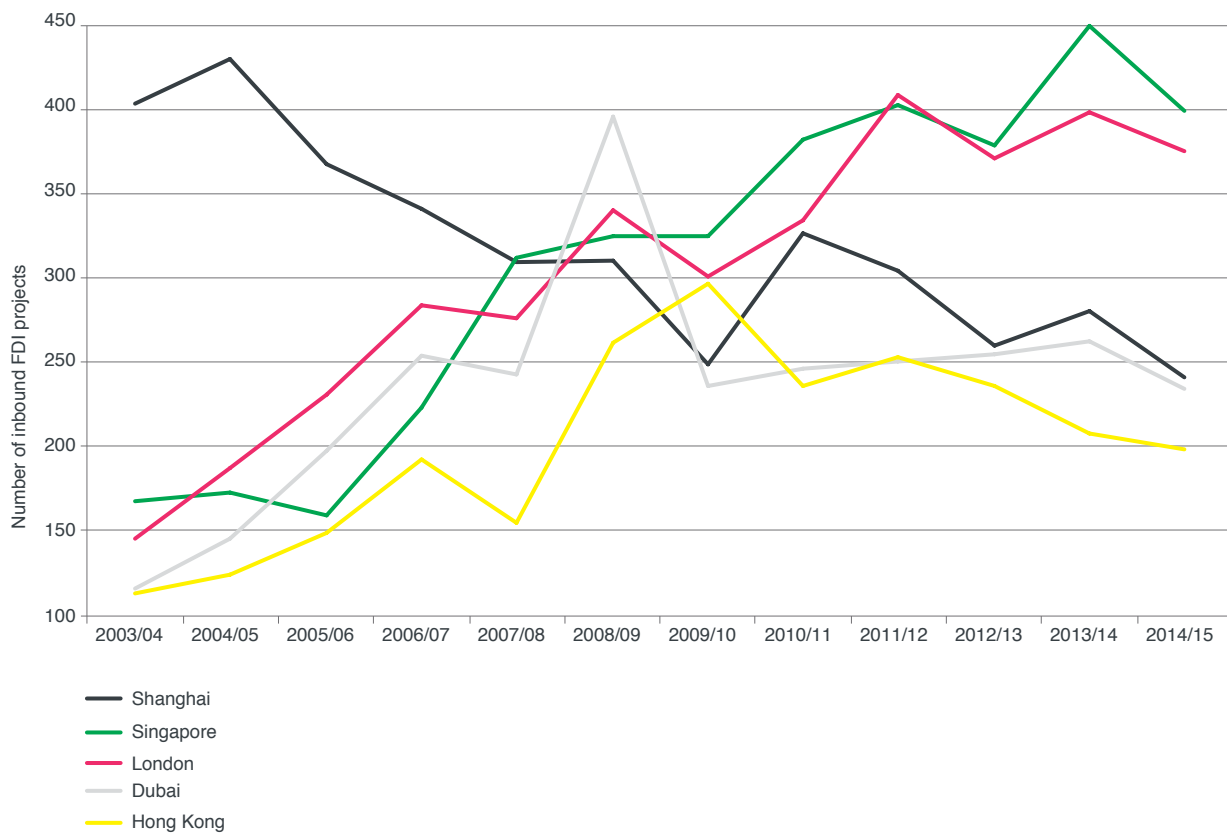
Source: fDi Markets; GLA Economics calculations

Figure 5.7: Number of inbound FDI projects, by destination city, 2010/11 – 2014/15

Source: fDi Markets; GLA Economics calculations

London's position in the global rankings has strengthened over the past ten years. When accounting for all projects between 2003/04 to 2014/15, London had the third largest number of inward FDI projects (behind Shanghai and Singapore). This therefore asserts that London's position has comparatively strengthened in the last five years. Figure 5.8 shows that over the course of the last decade, London has seen strong growth in both the absolute number of inbound FDI investments and its relative position against other cities.

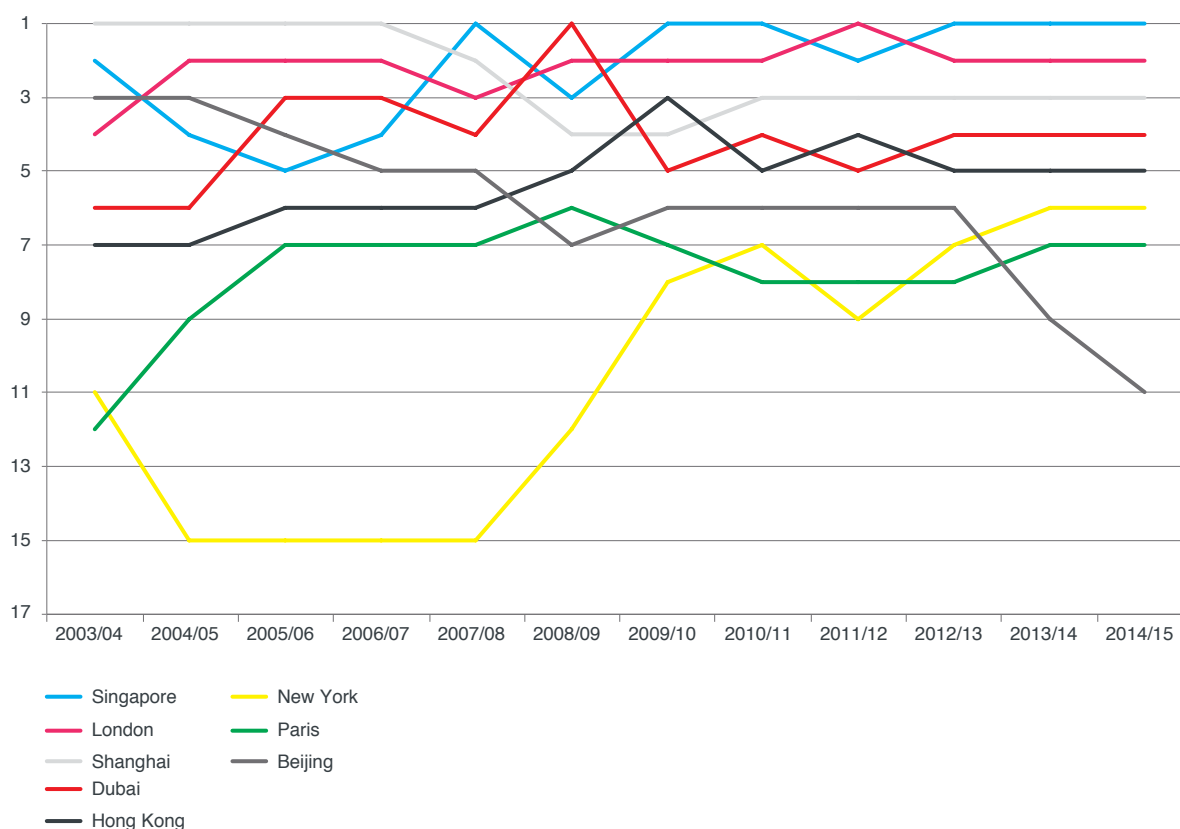
Figure 5.8: Number of inbound projects, top 5 cities between 2003/04 and 2014/15



Source: fDi Markets; GLA Economics calculations

Figure 5.9 outlines that London has consistently been one of the leading locations for inbound investment, with the city ranking in the top four through the time period. Over the last three years, Singapore, London, Shanghai, Dubai and Hong Kong have cemented their positions in the ranking for the number of inbound FDI projects. As a location for inbound investment, New York has strengthened its position considerably over the course of the last decade although it remains below the leading five cities.

Figure 5.9: Ranking of cities for inbound FDI projects, 2003/04 – 2014/15



Source: fDi Markets; GLA Economics calculations

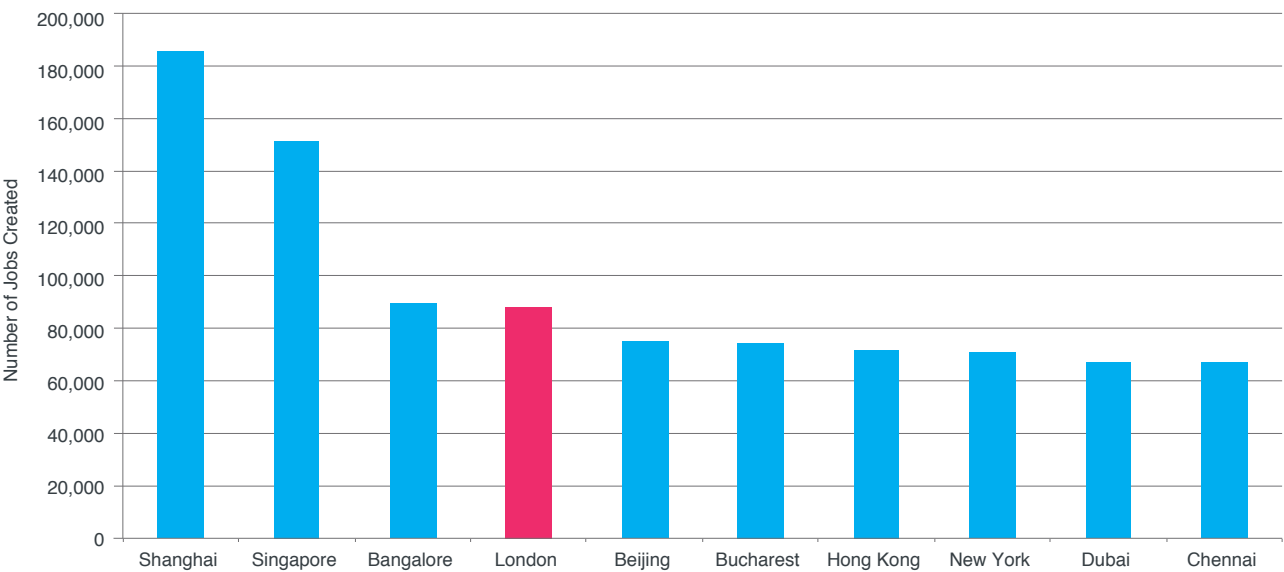
A measure of the impact of inward investment is seen through data on estimated job creation (see Table 5.11). While London has a large number of inbound investments, a conclusion that could be made is that they are comparatively less labour intensive. Over the last five years, Shanghai has consistently seen the largest number of jobs created through inward investment, over double the amount estimated to have been created by inward investment to London (as seen by Figure 5.10).

Table 5.11: Number of jobs created by inbound FDI by city; 2010/11 to 2014/15

City	2010/11	2011/12	2012/13	2013/14	2014/15	Total
Shanghai	45,500	38,500	35,900	35,600	29,900	185,400
Singapore	38,400	32,600	26,100	25,300	29,100	151,500
Bangalore	24,200	18,900	15,800	14,900	15,800	89,600
London	14,600	14,000	17,800	25,100	16,800	88,200
Beijing	17,100	13,600	18,800	18,100	7,100	74,900
Bucharest	18,200	6,400	21,900	17,700	10,100	74,300
Hong Kong	12,200	13,700	19,300	13,600	13,000	71,700
New York	15,400	9,500	10,300	18,700	16,700	70,500
Dubai	16,400	12,900	16,100	9,900	11,800	67,000
Chennai	30,800	12,400	7,500	6,700	9,400	66,800

Source: fDi Markets; GLA Economics calculations

Figure 5.10: Estimated number of jobs created through inbound FDI, by destination city, 2010/11 – 2014/15



Source: fDi Markets; GLA Economics calculations

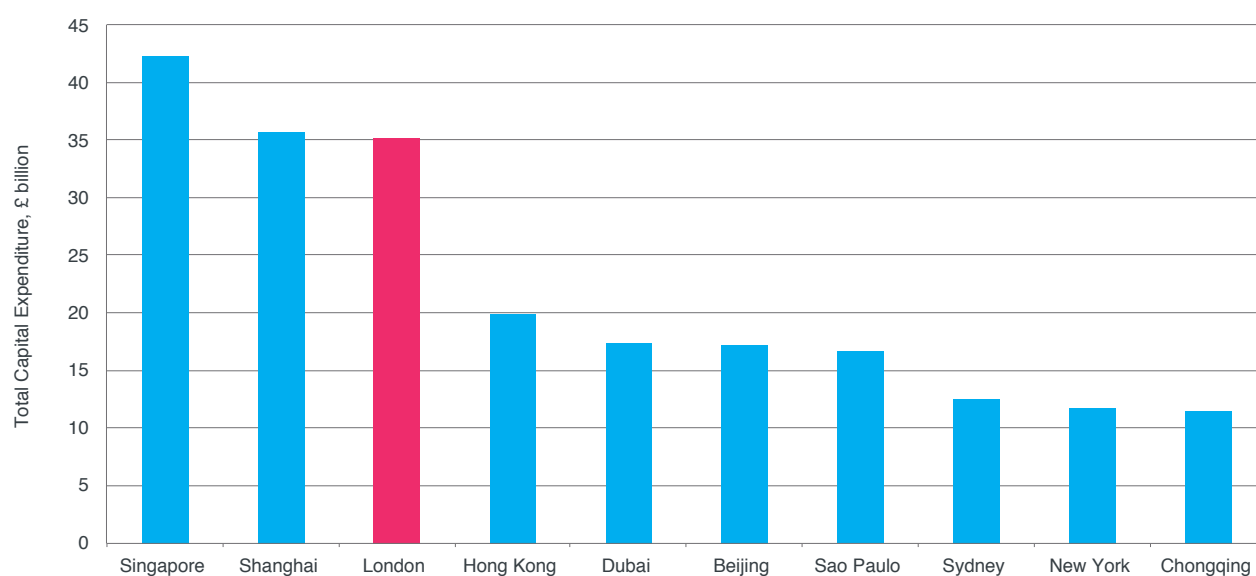
A final measure of the scale of inward investment is to observe the estimated level of capital investment associated with FDI. Over the course of the last five years, Singapore, Shanghai and London have seen considerably larger levels of investment than other cities (see Table 5.12 and Figure 5.10). In particular, in 2012/13, capital investment associated with FDI was estimated at over £13 billion for London, by far the largest of any city.

Table 5.12: Capital expenditure associated through inbound FDI, by city; £ billion, 2010/11 to 2014/15

City	2010/11	2011/12	2012/13	2013/14	2014/15	Total
Singapore	13.13	9.79	5.74	6.69	6.93	42.29
Shanghai	8.36	7.12	8.27	6.53	5.40	35.68
London	4.21	6.95	13.08	6.26	4.69	35.19
Hong Kong	4.16	3.92	4.96	3.51	3.31	19.86
Dubai	4.19	2.60	2.93	2.85	4.79	17.35
Beijing	3.39	3.90	4.93	3.62	1.31	17.15
Sao Paulo	4.24	4.31	3.85	3.48	0.72	16.60
Sydney	2.43	2.27	2.68	2.13	3.03	12.54
New York	2.20	1.34	1.97	3.21	2.97	11.69
Chongqing	1.95	2.98	4.39	1.52	0.64	11.47

Source: fDi Markets; GLA Economics calculations

Figure 5.11: Estimated capital expenditure of FDI investments, by destination city, 2010/11 – 2014/15



Source: fDi Markets; GLA Economics calculations

5.7 London as a centre for regional and international headquarters

London is a leading destination for international headquarters operations, holding companies and global business hubs for many reasons. It has a favourable time zone for global business and fast and effective transport links to Europe (every principal city in Europe is accessible within two hours flight time of London) and the rest of the world. It is considered relatively quick and easy for overseas businesses to register a company in the UK, set up banking facilities and start trading here, and the UK also has a highly competitive corporate tax system, all which serve as an incentive for investment.

A leading Headquarters location

In its 'London Futures Report, 2014²⁰⁵', Deloitte crowned London the 'Business Capital of Europe'. The analysis showed that of the Top 250 companies (taken from the 2013 Fortune Global 500 rankings) with global or regional headquarters in Europe, 40% are located in London. London's nearest rival, Paris, hosts just 8%. Furthermore, London is the chosen centre for 60% of the non-European Top 250 companies that have their regional headquarters in Europe.

By contrast, New York is host to just 25% of North American regional headquarters of the Top 250 companies meaning London is more central to the economy of Europe than New York is to the economy of North America.

Table 5.13 HQ locations of Top 250 companies with global or regional HQ in Europe:

City	Percentage
London	40
Paris	8
Madrid	3
Amsterdam	2.5
Brussels	2.5
Munich	2
Luxembourg	2
Moscow	2
Geneva	2
Other European Cities (total)	37

Source: Deloitte London Futures Report 2014

²⁰⁵ Deloitte London Futures Report, 2014: <http://www2.deloitte.com/uk/en/pages/growth/articles/london-crowned-business-capital-of-europe.html>

A comparison of high-skill employment also showed that London is the leading centre for talent and high-skills employment in Europe. London employs nearly half (47%) of all high-skill workers across Europe's leading business cities. In contrast, New York employs 31% of the total in the top five North American cities.

Table 5.14 Top cities in Europe for high-skilled employment in knowledge-based sectors²⁰⁶

City	Percentage
London	46
Paris	19
Berlin	14
Milan	11
Frankfurt	10

Source: Deloitte London Futures Report 2014

Other studies also underline the importance of London for HQs. Forbes 'The World's Most Influential Cities, 2014'²⁰⁷ identified that London hosts the headquarters of 68 companies on the 2012 Forbes Global 2000 list and is a popular location for the regional HQs of multinationals. The HQ ranking component, in which London ranks third, is based on GaWC's 2012 Command and Control Index which factors in company size and financial performance, as well as total number of Forbes Global 2000 HQs²⁰⁸.

²⁰⁶ Deloitte London Futures Report, 2014: <http://www2.deloitte.com/uk/en/pages/growth/articles/london-crowned-business-capital-of-europe.html>

²⁰⁷ Forbes The World's Most Influential Cities 2014: <http://www.forbes.com/sites/joelkotkin/2014/08/14/the-most-influential-cities-in-the-world/>

²⁰⁸ GaWC's Global Command and Control Centres, 2006/2009/2012: <http://www.lboro.ac.uk/gawc/datasets/da26.html>

Table 5.15 Top 20 Global Cities based on the amount of Forbes Global 2000 HQs

City	Number of HQs (2012)
Tokyo	154
New York	82
London	68
Paris	60
Seoul	60
Hong Kong	48
Beijing	45
Chicago	31
Houston	27
Taipei City	27
Mumbai	26
San Jose	25
Osaka	23
Toronto	23
Dallas	21
Sydney	21
Moscow	20
Stockholm	20
Shanghai	19
Madrid	18

Source: Forbes World's Most Influential Cities 2014

JLL's Cities Research Centre ranking of Corporate Presence in the Top 30 cities ranks London 3rd behind Tokyo & New York²⁰⁹ – based on the number of HQs of Forbes 2000 companies in each location.

A further analysis of the number of top 500 global companies with an FDI presence or headquarters in the leading global cities shows that London ranks second, behind only New York.

²⁰⁹ JLL Cities Research Centre: http://www.jll.com/cities-research/Documents/cities_research/Comparison/cities-microsite/bar/Global-Top-30.html

Table 5.16 Number of top 500 global companies (ranked by market value), with an FDI presence (indicated by fDi Markets) or headquarters in the location.

City	Number of FT Global 500 Companies (2014)
New York City	46
London	43
Singapore	36
Paris	33
Shanghai	33
Tokyo	29
Beijing	26
Dublin	17
Dubai	16
Hong Kong	15
Sao Paulo	11
Sydney	11
Barcelona	10
San Francisco	10
Atlanta	9
Melbourne	9
Berlin	8
Madrid	8
Amsterdam	4
Copenhagen	3
Dusseldorf	2

Source: FT.com from the Financial Times Ltd

Previous analysis conducted by London & Partners in 2013 of the leading 320 companies from the 2012 Fortune 500 rankings²¹⁰ identified that 76 had a HQ presence in London - equating to 23.8% of companies.

²¹⁰ Fortune 500, 2012: <http://fortune.com/fortune500/2012/>

FDI Track Record

London has a strong track record of attracting HQ FDI investments.

fDi Markets

Leading global cities: data from fDi Markets²¹¹ highlights the leading position that London has for global HQ investments. The data shows that since 2003, London is the second leading global destination for HQ investments behind only Singapore, but is by far the leading destination in Europe – attracting over twice as many projects as any other European city (Paris is the closest competitor recording 156 projects over the period). These projects into London have created an estimated 22,700 jobs.

Table 5.17 Top 20 leading destination cities for HQ FDI investments between January 2003 and December 2014

City	Projects	Capex (£m)	Jobs Created
Singapore	374	7,283.9	30,499
London	350	5,034.46	22,769
Dubai	246	3,461.9	22,295
Hong Kong	224	4,442.3	20,493
Shanghai	192	5,795.5	41,609
Paris	156	729.0	3,168
Dublin	142	1,444.5	11,416
Amsterdam	89	899.4	7,214
Sydney	84	1,605.9	9,067
Beijing	70	2,808.3	15,140
NYC (NY)	64	670.6	6,205
San Francisco (CA)	63	417.7	6,257
Copenhagen	59	394.7	2,113
Melbourne	55	819.0	4,797
Barcelona	54	577.5	6,299
Madrid	51	691.6	3,218
Berlin	49	196.2	2,399
Dusseldorf	45	99.6	989
Sao Paulo	45	557.6	3,162
Atlanta (GA)	44	442.4	4,275

All Capex figures shown in the table are in GBP - United Kingdom Pound millions.

Capex & Jobs data contains estimates.

Source: fDi Markets (www.fdimarkets.com), fDi Intelligence, from the Financial Times Ltd (2015)

²¹¹ fDi Intelligence, from the Financial Times Ltd (2015)

EY European Investment Monitor

Further, the EY European Attractiveness Survey 2015²¹², highlighted that the UK was able to leverage its cosmopolitan culture to rise again as the leading destination for HQs in Europe, attracting almost three times as many HQ projects (57) as Germany (20), Ireland (16), the Netherlands (15) or France (11).

When looking at the data at a city level, London's dominance is clear, with London attracting 90 HQ projects since 2010, significantly more than Dublin over this period, and had retained a clear lead in 2014 over any other city, attracting 15% of all HQ FDI projects into Europe.

Table 5.18 Top 10 leading destination cities for HQ FDI projects into Europe, 2010-2014 (no of projects)

City	2010	2011	2012	2013	2014	Total
London	23	15	10	17	25	90
Dublin	14	10	22	19	7	72
Amsterdam	11	6	6	6	4	33
Paris	3	5	6	5	3	22
Madrid	4	8	7	2		21
Barcelona	3	1	4	1	5	14
Berlin	2	1	4		6	13
Zurich	1	5	2	1	2	11
Cork	3	2	1	1	3	10
Luxembourg		4	2		4	10
Other	102	93	104	102	100	501
Total	166	150	168	154	159	797

Source: EY European Investment Monitor

²¹² EY European Attractiveness Survey 2015: [http://www.ey.com/Publication/vwLUAssets/EY-european-attractiveness-survey-2015/\\$FILE/EY-european-attractiveness-survey-2015.pdf](http://www.ey.com/Publication/vwLUAssets/EY-european-attractiveness-survey-2015/$FILE/EY-european-attractiveness-survey-2015.pdf)

London & Partners role in attracting HQ investments

Between 2003-04 and 2014-15, London and Partners helped 665 foreign companies to set up a HQ function in London – the equivalent to almost 1 in 3 (31%) of all investments over this time, creating over 16,400 jobs in the process – an average of 55 projects & 1,367 jobs each year.

Table 5.19 London & Partners HQ FDI investments between FY 2003/04 & 2014/15 by country of origin

Country of Origin	Projects	Year 1 jobs
USA	256	8,028
India	79	1,711
China	69	867
Japan	38	1,512
Australia	36	1,278
Canada	31	284
Korea	20	145
France	14	509
New Zealand	14	121
Spain	14	428
Other	94	1,526
Grand Total	665	16,409

Source: London & Partners

The USA remains the leading source market for these HQ investments, accounting for 38% of all projects, and just under half (49%) of all jobs created, at an average of 31 jobs per project – significantly above the average for all markets of 25 jobs.

Particular strength is also seen with investments from Japan, creating an average of 40 jobs per projects, plus Australia & France – both generating an average of 36 jobs per project each.

In terms of sectors – particular strength is seen in those sectors where London has traditional strengths, with ICT attracting 31% of all HQ projects and 29% of jobs created – at an average of 23 jobs per project, just below the average for all sectors of 25 jobs per project. Financial Services performs slightly better in this regard, attracting 17% of projects but 19% of jobs, at an average of 29 per project. Of the leading sectors, Retail generates the highest average jobs, at an average of 37 jobs.

Table 5.20 London & Partners HQ FDI investments between FY 2003/04 & 2014/15 by country of origin

Sector	Projects	Jobs
ICT	204	4,711
Financial Services	111	3,172
Business Services	97	918
Creative Industries	54	1,282
Life Science & Healthcare	25	431
Retail	24	881
Other	150	5,014
Total	665	16,409

Source: London & Partners

6. TOURISM

6.1 Main Findings

- The value of tourism to London is more than double that of any other region of UK, with tourism in London estimated to have supported 278,000 jobs in 2013.
- 17.4 million overseas visitors came to the Capital in 2014, a record high; spending £11.8 billion on their visits.
- London is forecast to be the most visited city in the world in 2015 according to the MasterCard Global Destination Cities Index.
- Europe remains the pre-eminent market for visitors to London; the Asian and Middle East markets have also grown over the last ten years.
- London's ranking as a destination for international association meetings has improved from 16th in 2009 to 6th in 2014; London however only has one venue with exhibition space greater than 100,000 square metres (the ExCeL, which is only the 36th largest exhibition venue in the world).
- London Heathrow remains the third largest airport in the world in terms of passenger numbers; however airports across the Middle East and Asia have grown significantly over the last five years.

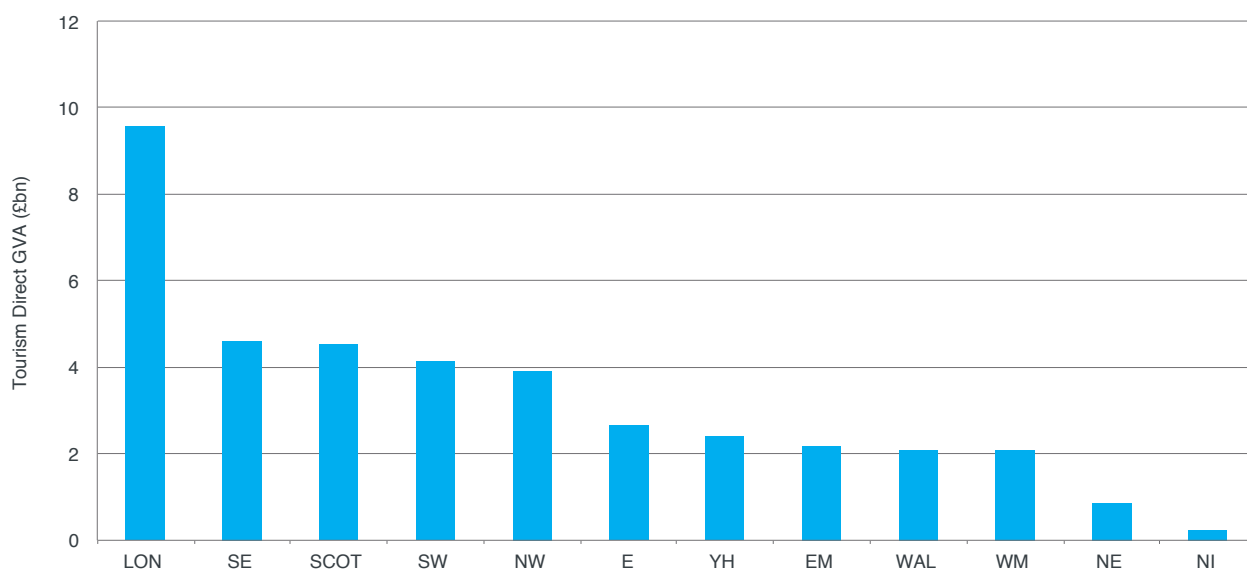
London is a major global city and one area in particular in where this is the case as a location for tourism. London's tourist offer is complementary to London's economy and its offer as a destination for business. To service the demand from tourism and inward investment, London is a well-connected city, with its transport network designed to enable London to be competitive as a business location.

6.2 London's Tourism Economy

In June 2015, the ONS provided the latest estimates of the economic impact of tourism to the UK, utilising a “nowcast” modelling technique to derive estimates for tourism direct GVA for 2013 and 2014, drawing upon the UK Tourism Satellite Account for 2012. The report found that UK tourism direct GVA grew very strongly in both 2011 and 2012 (increasing by 9.8 per cent and 6.3 per cent respectively). In 2013 and 2014, it is estimated that growth was lower, at 2.4 per cent and 1.5 per cent respectively; with tourism direct GVA estimated at £59.6 billion in 2014²¹³.

The estimate of the total GVA that is a direct result of tourism in London is calculated by the Tourism Intelligence Unit at the ONS. The most recent published estimate for tourism direct GVA for London (where London was the destination, therefore excluding the spending of outbound travel and tourism from London such as at airports and ferry terminals) was £9.6 billion in 2011. This is a significant increase on the value estimated by the ONS, of £6.6 billion in 2008²¹⁴. These values are important however since they act as the upper bound for any estimation of the value of cultural tourism to London. Figure 6.1 provides the estimates of the tourism direct GVA for each region, drawn from data provided at the NUTS2 geography level, aggregated up to the NUTS1 regional level²¹⁵.

Figure 6.1: Tourism Direct GVA, by region (where the region is the destination), £ billion, 2011



Source: Tourism Satellite Account, ONS; GLA Economics calculations.

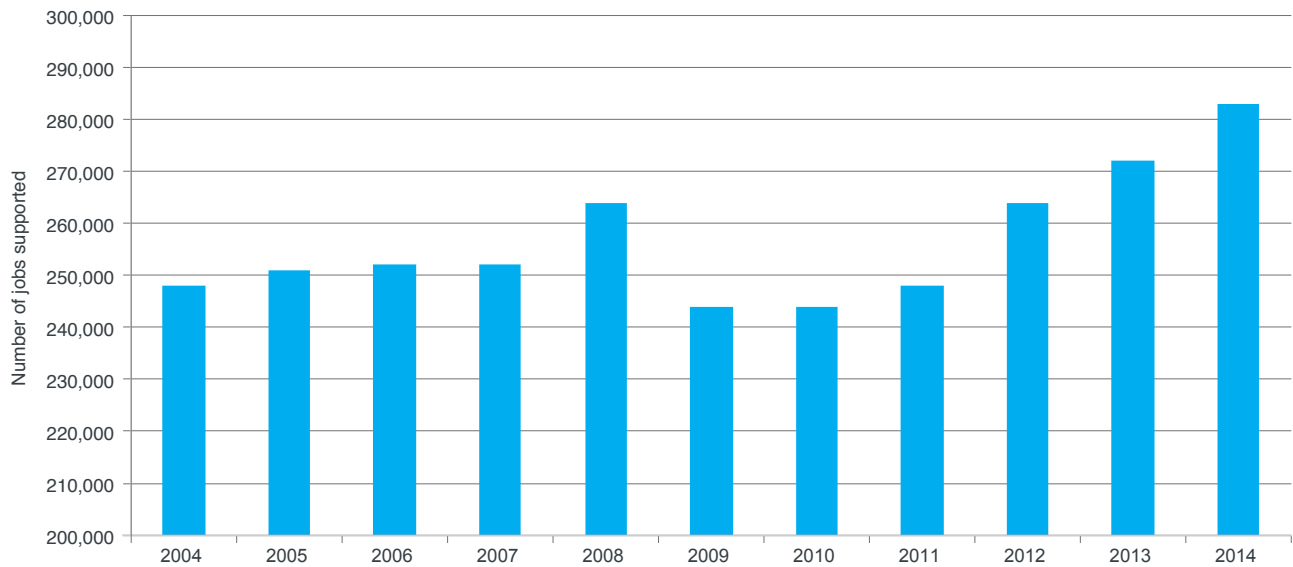
²¹³ ONS, 26 June 2015, 'The UK Tourism Satellite Account (UK-TSA) for 2012'.

²¹⁴ Kyte, S., May 2012, 'Working Paper 53: Tourism in London'. GLA Economics.

²¹⁵ Note: This only accounts for where the region is the destination, it does not include the spending of UK residents on travelling abroad before they leave the country, therefore the sum of the regional estimates will not add to the total tourism direct GVA for the UK.

Figure 6.2 below provides a time-series of employment supported by tourism in London, and estimates that in 2014, there were a total of 283,000 jobs supported, an increase of 4.0 per cent on the year previous and since 2004, has grown at an annual average growth rate of 1.3 per cent²¹⁶.

Figure 6.2: Employment supported by tourism in London



Source: Business Register and Employment Survey; Annual Population Survey, ONS; GLA Economics modelling

²¹⁶ Data on total employment supported by tourism in London are rounded to the nearest thousand; GLA Economics calculations.

London as a visitor destination

Over recent years, London has seen record levels of international tourists. According to the International Passenger Survey, in 2014, there were a total of 17.4 million visitors to the Capital; who spent £11.8 billion whilst in the Capital. Over the course of the last ten years, there have been significant increases in visitors and expenditure; and London has seen faster growth than the UK as a whole, an interpretation that could be made of this is that London itself is increasingly seen as the focal point of trips to the UK.

Table 6.1: Growth over time of international visitors and expenditures, 2005 – 2014

Year	Total international visitors (million)	Total international visitor spend (£ billion; nominal prices)
2005	13.9	6.9
2006	15.6	7.8
2007	15.3	8.2
2008	14.8	8.1
2009	14.2	8.2
2010	14.7	8.7
2011	15.3	9.4
2012	15.5	10.1
2013	16.8	11.5
2014	17.4	11.8

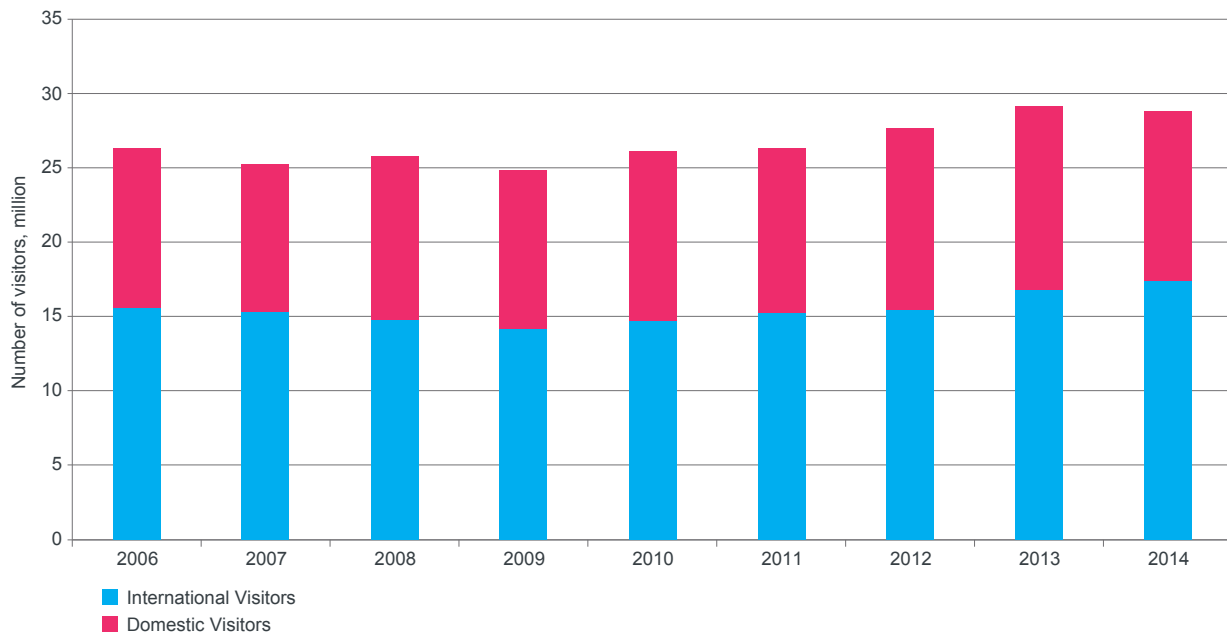
Growth of international visitors (2005 – 2014)	25.3%
Average annual growth rate of visitors	2.5%

Growth of international tourism visitor spend (2005 – 2014; in constant 2005 prices)	40.2%
Average annual growth rate of visitor expenditure (in constant prices)	3.8%

Table 6.1 outlines the growth over time of international visitors and their expenditures over the last ten years, and finds that in real terms²¹⁷ there has been growth of 40.2 per cent in spending of international visitors to London. Similar analysis for the UK as a whole shows that over the same ten year period; there has been an increase of 14.7 per cent of overseas visitors to the UK; and in constant 2005 prices, this is an increase of 25.1 per cent of visitor spend.

As well as being a leading destination for international visitors, London also attracts overnight tourism from UK residents. Combined with international visitors, there were 28.7 million overnight visitors the capital in 2014, a fall on 2013, however this was driven by the fall in domestic overnight tourism being greater than the rise in international visitors; these data are shown in Figure 6.3.

Figure 6.3: Number of overnight visitors to London; million



Source: International Passenger Survey, ONS

²¹⁷ HM Treasury, 3 November 2015, 'GDP deflators at market prices, and money GDP: October 2015 (The Blue Book)'.

When compared to other global cities, according to the MasterCard Global Destination Cities Index, it is forecast that in 2015, London will be the most visited city in the world; with 18.8 million visitors, an increase of 6.0 per cent on the year previous²¹⁸. London ranks ahead of Bangkok, Paris, Dubai and Istanbul in terms of both expected visitor numbers, as well as expected visitor expenditure, estimated at \$20.2 billion in 2015; based upon the average exchange rate for 2014 of Sterling against the US Dollar, this equates to around £13.8 billion²¹⁹.

In addition, London has also seen strong average annual rates of growth in both visitor numbers and expenditures, averaging 5.3 per cent growth in visitor numbers between 2011 and 2015, and 7.5 per cent growth in visitor expenditure. Some emerging markets though have grown at a significantly faster pace, as seen in Istanbul and Dubai in terms of the volume of visitors; and Seoul in terms of visitor expenditure.

Table 6.2: International tourism forecasts, 2011 – 2015, million

Rank	City	2011	2012	2013	2014	2015	Average annual growth rate
1	London	15.3	15.5	16.8	17.8	18.8	5.3%
2	Bangkok	13.8	15.8	17.5	16.9	18.2	7.2%
3	Paris	14.0	14.3	15.5	15.6	16.1	3.6%
4	Dubai	9.9	10.9	12.2	13.2	14.3	9.6%
5	Istanbul	7.5	8.8	9.9	11.3	12.6	13.8%
6	New York	10.3	10.6	11.1	11.9	12.3	4.5%
7	Singapore	10.4	11.1	11.9	11.5	11.9	3.4%

Source: MasterCard Global Destination Cities Index, 2015

Table 6.3: International visitor spend forecasts, 2011 – 2015, \$ billion

Rank	City	2011	2012	2013	2014	2015	Average annual growth rate
1	London	15.1	16.0	17.6	19.8	20.2	7.5%
2	New York	15.8	14.8	16.1	16.9	17.4	2.4%
3	Paris	15.0	14.5	16.9	16.9	16.6	2.6%
4	Seoul	8.2	9.9	12.0	14.7	15.2	16.7%
5	Singapore	14.5	15.2	15.4	14.9	14.7	0.3%

Source: MasterCard Global Destination Cities Index, 2015

²¹⁸ MasterCard 2015 Global Destinations Cities Index.

²¹⁹ Annual average exchange rate, Pound Sterling to US Dollar for 2014 was \$1.648:£1. Source: Bank of England.

6.3 International Tourism Trends

Regional Analysis

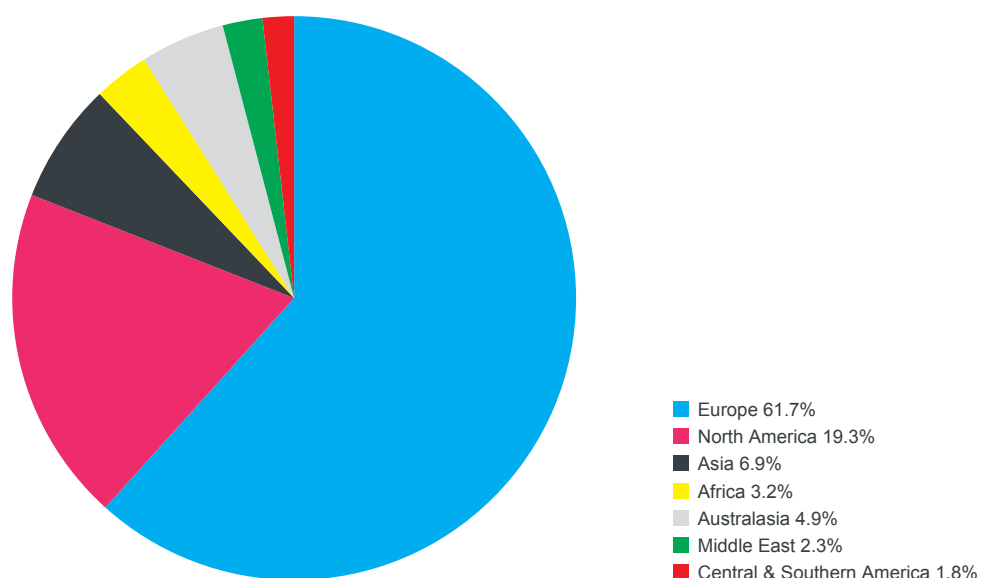
Analysis of International Passenger Survey data between 2005 and 2014 shows that there has been a change in the make-up of international visitor by region and country. The following table shows there has been a noticeable fall in the number of visitors from the North America market over the last ten years, whereas, in absolute terms, the European market has expanded significantly. In proportional terms, the Middle East and Central & Southern America has seen the largest growth in the last five, with the market doubling in size; whereas the Asian market, after seeing a fall between 2005 and 2010, since then there has been a rise of almost 30 per cent.

Table 6.4: Total international visitors to London by region

Region	2005	2010	2014	Average Annual Growth Rate
Europe	8.57	9.71	11.53	3.4%
North America	2.68	2.16	2.34	-1.5%
Asia	0.96	0.95	1.24	2.9%
Africa	0.44	0.39	0.40	-1.1%
Australasia	0.67	0.74	0.72	0.8%
Middle East	0.32	0.42	0.60	7.2%
Central & Southern America	0.25	0.34	0.57	9.6%

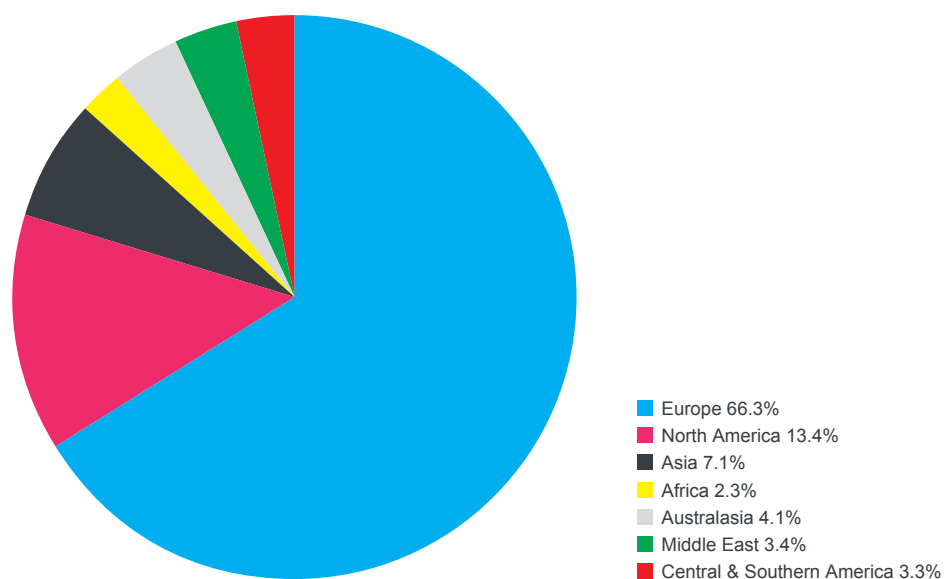
Source: International Passenger Survey

Figure 6.4: Proportion of total visitors to London by geographic region, 2005



Source: International Passenger Survey

Figure 6.5: Proportion of total visitors to London by geographic region, 2014



Source: International Passenger Survey

Country analysis of visits made to London

A look at individual markets provides some interesting trends over the last ten years. The United States has lost its position as the single largest country market for London, with France having overtaken it in 2014. A number of countries have seen major growth in the number of visitors to London; within the main European markets, Italy has seen growth of 85 per cent; within the Middle East, the UAE and Saudi Arabia has seen visitor numbers more than double; in Asia, Singapore has similarly seen visitor numbers more than double; and Brazil and Argentina has sent around three times the number of visitors than in 2005. However, some markets have shrunk in size. The North American market has fallen and Japan has seen the largest percentage fall in the number of visitors coming to London, falling by 35 per cent since 2005.

Table 6.5: Total international visitors to London by major countries, 2005 – 2014, million

Country	2005	2010	2014	Average annual growth rate
France	1.37	1.62	2.01	4.4%
USA	2.28	1.77	1.98	-1.6%
Germany	1.28	1.26	1.34	0.5%
Italy	0.64	0.93	1.19	7.1%
Spain	0.71	0.88	0.99	3.8%
Ireland	0.73	0.66	0.62	-1.8%
Australia	0.55	0.62	0.61	1.2%
Canada	0.40	0.39	0.36	-1.2%
Brazil	0.07	0.15	0.26	15.7%
India	0.17	0.24	0.25	4.4%
Russia	0.13	0.12	0.17	3.0%
Japan	0.24	0.17	0.16	-4.4%
UAE	0.06	0.11	0.15	10.7%
South Africa	0.18	0.12	0.13	-3.6%
Singapore	0.05	0.09	0.12	10.2%
Hong Kong	0.09	0.08	0.11	2.3%
New Zealand	0.12	0.11	0.11	-1.0%
China	0.06	0.06	0.10	5.8%
Saudi Arabia	0.04	0.05	0.10	10.7%
Argentina	0.02	0.05	0.09	18.2%

Source: International Passenger Survey, GLA Economics calculations

Visits to London by purpose

This section looks at the broad trends of purpose for visit to London, looking at regions, but also points of interest for individual countries.

Holiday Visits

In 2014, there were a total of 8.91 million holiday visits to London, with the largest single country of origin being France. Holiday visits have grown on average by 4.8 per cent in the period 2005 to 2014. Table 6.6 shows the largest 25 countries, sorted by the number of visits made in 2014. This table shows the particularly strong increases across the European markets, with France and Italy growing at average rates of almost ten percent. A notable exception to this list is China, which was only ranked 31st in terms of number of inbound visitors to the Capital, despite average annual growth of 15.2 per cent over the time period.

Table 6.6: Total holiday visits to London, 2005 - 2014

Country	2005	2010	2014	Average Annual Growth Rate
France	0.53	0.95	1.13	8.7%
USA	1.05	0.75	0.97	-0.9%
Germany	0.62	0.71	0.75	2.1%
Italy	0.30	0.58	0.71	9.8%
Spain	0.33	0.49	0.52	5.0%
Sweden	0.15	0.23	0.35	10.1%
Australia	0.29	0.33	0.34	1.8%
Netherlands	0.27	0.31	0.34	2.6%
Norway	0.14	0.21	0.29	8.6%
Belgium	0.10	0.27	0.29	12.8%
Switzerland	0.12	0.14	0.24	7.8%
Brazil	0.03	0.10	0.19	23.8%
Denmark	0.14	0.15	0.19	3.6%
Irish Republic	0.22	0.21	0.17	-3.2%
Canada	0.17	0.17	0.17	-0.2%
Poland	0.10	0.10	0.16	5.7%
South Korea	0.09	0.06	0.12	4.3%
India	0.05	0.09	0.10	6.8%
Austria	0.06	0.10	0.09	5.5%
Japan	0.13	0.10	0.09	-4.1%
Other Eastern Europe	0.09	0.11	0.09	0.3%
Portugal	0.05	0.09	0.09	6.1%
Finland	0.05	0.05	0.09	6.8%
Russia	0.04	0.05	0.08	7.5%
Argentina	0.01	0.04	0.08	22.9%
TOTAL	5.86	7.33	8.91	4.8%

Source: International Passenger Survey, GLA Economics calculations

Business Tourism

In 2014, there were a total of 3.28 million business visits to London, with the largest single origin country being the United States. Growth in visits for a business purpose has only increased on average by 0.3 per cent in the period 2005 – 2014. Table 7.7 shows the largest 25 countries, sorted by the number of visits made in 2014. Over the period 2005 – 2014, the countries with the largest average annual growth rates have been for the United Arab Emirates and Singapore.

Table 6.7: Total business tourism visits to London, 2005 - 2014

Country	2005	2010	2014	Average annual growth rate
USA	0.51	0.45	0.45	-1.4%
France	0.30	0.22	0.31	0.5%
Germany	0.31	0.25	0.28	-1.0%
Netherlands	0.16	0.13	0.19	1.7%
Italy	0.16	0.14	0.17	0.5%
Irish Republic	0.12	0.12	0.15	2.7%
Spain	0.15	0.14	0.14	-1.4%
Switzerland	0.12	0.08	0.13	1.7%
Poland	0.11	0.08	0.11	0.3%
Belgium	0.09	0.08	0.09	-0.6%
Sweden	0.07	0.08	0.07	0.6%
Denmark	0.05	0.05	0.07	3.3%
India	0.05	0.07	0.07	4.3%
Norway	0.05	0.06	0.06	2.2%
Other Eastern Europe	0.10	0.06	0.06	-4.9%
Romania	0.00	0.03	0.06	..
Australia	0.05	0.06	0.05	1.4%
Canada	0.06	0.06	0.05	-1.8%
Japan	0.06	0.04	0.04	-4.1%
Portugal	0.03	0.03	0.04	3.1%
Russia	0.06	0.04	0.04	-4.3%
Turkey	0.03	0.03	0.04	3.5%
United Arab Emirates	0.02	0.03	0.04	9.3%
Singapore	0.02	0.02	0.03	8.0%
South Africa	0.04	0.03	0.03	-1.3%
TOTAL	3.17	2.78	3.27	0.3%

Source: International Passenger Survey, GLA Economics calculations

Visiting Friends and Relatives

In 2014, there were a total of 3.95 million visits to London under a purpose of visiting friends and relatives. Table 6.8 shows the largest 25 countries, sorted by the largest number of visits made in 2014. Through the period of 2005 – 2014, there has only been weak growth in visits, with an average annual growth rate of 1.5 per cent.

Table 6.8: Total number of visits to friends and relatives in London, 2005 - 2014

Country	2005	2010	2014	Average Annual Growth Rate
France	0.44	0.37	0.47	0.9%
USA	0.42	0.34	0.34	-2.2%
Spain	0.16	0.17	0.28	6.1%
Irish Republic	0.30	0.24	0.25	-1.9%
Germany	0.28	0.22	0.25	-1.1%
Italy	0.13	0.15	0.23	6.6%
Australia	0.16	0.17	0.18	1.4%
Poland	0.17	0.16	0.15	-1.1%
Netherlands	0.12	0.12	0.13	0.4%
Switzerland	0.08	0.07	0.11	4.6%
Canada	0.12	0.10	0.10	-1.6%
Other Eastern Europe	0.07	0.06	0.09	2.7%
Belgium	0.09	0.09	0.09	0.2%
Romania	..	0.03	0.08	..
India	0.04	0.06	0.06	4.8%
Sweden	0.08	0.09	0.06	-2.9%
Greece	0.03	0.02	0.06	7.2%
Norway	0.05	0.05	0.06	2.7%
Israel	0.04	0.04	0.05	3.9%
Denmark	0.07	0.04	0.05	-3.5%
Portugal	0.02	0.04	0.05	14.1%
South Africa	0.06	0.04	0.04	-3.8%
United Arab Emirates	0.02	0.03	0.04	12.1%
Nigeria	0.04	0.03	0.04	1.5%
New Zealand	0.05	0.04	0.04	-3.4%
TOTAL	3.46	3.22	3.95	1.5%

Source: International Passenger Survey, GLA Economics calculations

Study Visits

In 2014, there were a total of 248,400 visits to London for purposes of studying, with the United States, France and Italy being the largest single markets. Growth over the period 2005 – 2014 has been stronger, with average annual growth of 3.3 per cent; and for some markets, especially Russia, China, India and more widely across Asia and Africa, there has been very strong annual growth over the last ten years. Table 6.9 shows the largest 25 countries, sorted by the largest number of visits made in 2014.

Table 6.9: Total number of visits to London for study, 2005 - 2014

Country	2005	2010	2014	Average Annual Growth Rate
USA	0.049	0.035	0.063	2.9%
Italy	0.016	0.022	0.031	7.9%
France	0.020	0.011	0.031	5.0%
Spain	0.005	0.028	0.023	18.7%
Germany	0.012	0.019	0.014	1.5%
Russia	0.001	0.006	0.010	25.3%
Brazil	0.005	0.006	0.010	9.4%
Netherlands	0.007	0.002	0.008	1.7%
Switzerland	0.007	0.003	0.005	-3.1%
India	0.002	0.003	0.005	9.5%
China	0.001	0.003	0.004	12.4%
Other Eastern Europe	0.003	0.004	0.003	1.1%
Saudi Arabia	..	0.000	0.003	..
Turkey	0.002	0.005	0.003	3.9%
Belgium	0.002	0.003	0.003	5.5%
Other Africa	0.000	0.000	0.002	33.1%
Denmark	0.001	0.003	0.002	11.8%
Irish Republic	0.001	0.003	0.002	5.3%
Japan	0.009	0.003	0.002	-14.7%
Other Central & South America	0.001	0.003	0.002	5.1%
South Korea	0.003	0.004	0.002	-7.1%
Mexico	0.001	0.000	0.002	11.2%
Bulgaria	..	0.001	0.001	..
Malaysia	0.000	0.001	0.001	19.2%
Greece	0.001	0.001	0.001	6.6%
TOTAL	0.19	0.20	0.25	3.3%

Source: International Passenger Survey, GLA Economics calculations

All Purposes for Visit

The following tables outlines the changes over time in the number of visits, and expenditure associated with them, of visits to London; Table 6.10 shows that growth in visitors has been driven by holiday and those coming to the Capital for study. Similar trends are seen for expenditure, however growth is partly as a function of increased prices, as all data are in nominal prices (with Table 6.11 outlining that in constant prices, annual growth in expenditure of visits made to London have increased by 4.0 per cent on average).

Table 6.10: Total visits to London by purpose of visit, 2005 – 2014

Purpose of visit	2005	2010	2014	Average annual growth rate
Business	3.17	2.78	3.27	0.3%
Holiday	5.86	7.33	8.91	4.8%
Miscellaneous	1.21	1.18	1.02	-1.9%
Study	0.19	0.20	0.25	3.3%
VFR	3.46	3.22	3.95	1.5%
TOTAL	13.89	14.71	17.40	2.5%

Source: International Passenger Survey, GLA Economics calculations

Table 6.11: Total expenditure from visits to London, by purpose of visit, 2005 - 2014

Purpose for Visit	2005	2010	2014	Average annual growth rate (nominal prices)
Business	2.18	2.24	2.94	3.4%
Holiday	2.51	3.94	5.44	9.0%
Miscellaneous	0.60	0.68	1.00	5.9%
Study	0.35	0.56	0.59	5.9%
VFR	1.22	1.32	1.86	4.8%
TOTAL	6.86	8.74	11.82	6.2%

Source: International Passenger Survey, GLA Economics calculations

Expenditure per Night

In 2014, visitors to London spent on average £109 per night on their visits to London, which since 2005 has grown at an average of 4.3 per cent per year (in nominal prices, therefore not accounting for changes in prices over time). There are however large disparities between individual markets, and the following table outlines the top 25 countries in terms of expenditure per night in London, sorted by the highest value for 2014.

This ranking list is dominated by countries from the Middle East and Asia, with the first European country being Norway (in 11th position). The UK's largest markets for tourism, as given by Table 6.5 (France, USA, Germany, Italy and Spain), all fall quite low down on this list, with the USA in 26th position (£125; annual average growth of 0.5 per cent); and Germany in 38th position (£99; annual average growth of 4.2 per cent).

Table 6.12: Expenditure per night by country market, 2005 - 2014

Country	2005	2010	2014	Average annual growth rate
Qatar	..	..	341	..
Egypt	89	147	340	16.1%
United Arab Emirates	161	154	249	5.0%
Kuwait	168	147	241	4.1%
Saudi Arabia	170	239	239	3.9%
Other Middle East	155	179	213	3.6%
Bahrain	..	..	200	..
Singapore	98	145	196	8.0%
Japan	90	112	190	8.6%
Indonesia	..	..	182	..
Norway	115	157	179	5.0%
China	91	112	175	7.6%
Other Western Europe	77	97	170	9.2%
Switzerland	118	138	166	3.9%
Hong Kong	158	150	164	0.4%
Luxembourg	118	93	163	3.7%
Sweden	71	122	162	9.5%
Denmark	81	135	140	6.3%
Other Africa	58	130	140	10.3%
Nigeria	58	122	134	9.7%
Russia	110	133	133	2.1%
South Africa	68	111	133	7.7%
Netherlands	92	118	131	3.9%
Iceland	128	120	126	-0.2%
Oman	..	..	125	..

Source: International Passenger Survey, GLA Economics calculations

Nights per Visit

In 2014, visitors to London spent on average 6.2 nights on their visit, the highest duration since 2007; however the number of nights spent in London varies by market (and largely is a function of countries higher on this list being further afield than Europe), the following table outlines the top 25 countries in terms of expenditure per night in London, sorted by the highest value for 2014.

Table 6.13: Nights per visit by country market, 2005 - 2014

Country	2005	2010	2014	Average annual growth rate
Kuwait	13.6	12.2	20.0	4.3%
Pakistan	23.6	19.3	17.7	-3.1%
Other Southern Africa	14.8	8.7	16.6	1.3%
Other Asia	18.7	20.7	16.6	-1.3%
Kenya	14.4	9.1	16.2	1.3%
Romania	..	12.7	14.0	..
India	16.4	17.0	13.9	-1.8%
Taiwan	10.8	9.2	13.7	2.7%
Bulgaria	..	7.2	13.6	..
Nigeria	22.1	13.3	12.9	-5.8%
Other Central & South America	13.6	13.9	12.6	-0.8%
Other Africa	16.1	11.3	12.3	-2.9%
Other Middle East	11.4	10.8	11.0	-0.4%
Saudi Arabia	11.9	7.8	10.6	-1.2%
New Zealand	10.2	7.3	10.2	0.0%
Thailand	7.5	15.1	9.9	3.1%
Bahrain	..	..	9.4	..
Qatar	..	..	8.9	..
China	10.1	14.1	8.6	-1.8%
Oman	..	..	8.4	..
Egypt	14.5	10.5	8.4	-6.0%
Brazil	15.2	9.0	8.3	-6.5%
Russia	7.1	7.6	8.1	1.5%
South Africa	8.7	7.8	8.0	-0.9%
Turkey	7.2	9.0	7.9	1.1%

Source: International Passenger Survey, GLA Economics calculations

6.4 London's cultural offering

One of the major reasons for people to either visit or live in the Capital is the cultural offerings that the city has to offer. London's culture is built upon its history, heritage as well as a diverse range of communities' from across the globe. GLA Economics estimated that cultural tourism was worth £3.2 billion in GVA to London in 2013 and supported 80,000 jobs in the Capital.²²⁰

For example, London is home to four UNESCO world heritage sites, 349 live music venues and 857 art galleries; London stages major global festivals and events, such as London Fashion Week as well as sporting and cultural events. Data from the World Cultural Cities Report show how London compares to other major global cities across a number of indicators, as shown in Table 6.14

Table 6.14: City comparisons on cultural provision

	London	New York	Paris	Tokyo
Art galleries	857	613	1,151	688
Festivals and celebrations	271	263	360	485
National museums	13	7	27	8
Admissions to all theatres²²¹	22.0m	13.1m	5.6m	12.0m
Live music venues	320	453	430	385
Michelin star restaurants	62	76	105	224
Theatres	241	420	353	230
Museums	215	143	313	47
UNESCO World Heritage Sites	4	1	4	1

Source: World Cities Culture Forum

²²⁰ GLA Economics, "The Value of Cultural Tourism to London", Current Issues Note 44

²²¹ These numbers vary to those outlined in Tables 7.16 and 7.17; those tables refer to data from major theatres in Central London; data in Table 7.14 refer to all theatres in London.

The Annual Survey of Visits to Visitor Attractions lists the number of visits made each year to recognised attractions. These data show that nine of the top ten visitor attractions in England were based in London. According to the survey, there were a total of 66.4 million visits to visitor attractions in London in 2014, to which 55.6 million (or 84 per cent) of all these visits were to the top twenty attractions. In addition, eight of the top ten, and fourteen of the top twenty visitor attractions in London were free to entry.

Data from the Association of Leading Visitor Attractions (ALVA) in Table 6.15 show that nine of the top ten attractions in the UK were based in London.

Table 6.15: Visits made in 2014 to visitor attractions in membership with ALVA

Attraction	Region	Number of visitors (million)	Annual change (%)
British Museum	London	6.695	0%
The National Gallery	London	6.417	6%
Southbank Centre	London	6.256	..
Tate Modern	London	5.785	18%
Natural History Museum	London	5.388	1%
Science Museum	London	3.356	1%
V&A South Kensington	London	3.180	-3%
Tower of London	London	3.076	6%
Somerset House	London	2.463	3%
The Library of Birmingham	West Midlands	2.415	..

Source: Association of Leading Visitor Attractions. '--' denotes data are not available.

Theatres

Data from the Society of London Theatre (SOLT) report that total theatre attendances in London for 2014 rose by 1.1 per cent to 14.7 million; and gross sales at Box Offices rose by 6.5 per cent to £623.6 million. There were also increases in the number of performances taking place and the number of new productions.

Table 6.16: Attendances and box office revenues, SOLT members, 2010 – 2014

Year	Attendance (million)	Annual change (%)	Gross box office revenues (£mn)	Annual change (%)	Average number of theatres open	Number of performances	Number of new productions
2010	14.2	-0.8	512.3	+1.5	46	18,615	264
2011	13.9	-1.7	528.4	+3.1	45	18,061	256
2012	14.0	+0.6	529.8	+0.3	45	18,448	305
2013	14.6	+4.0	585.5	+10.5	45	18,433	270
2014	14.7	+1.0	623.6	+6.5	46	18,975	280

Source: Society of London Theatre

Comparable data from New York, shows similar levels of attendances and gross revenues for the 40 Broadway theatres, however with sharp increases in 2014 compared to a year earlier. In the 2014 calendar year, gross revenue increased by 14.1 per cent to \$1.36 billion; and attendance increased by 13.4 per cent to 13.1 million. Tables 6.17 and 6.18 provide comparative analysis as to the performance of London and Broadway theatres over recent years.

Table 6.17: Theatre attendances, London and New York, 2011 – 2014

	London		New York	
Year	Attendance	Annual growth rate	Attendance	Annual growth rate
2011	13.9	-1.7%	12.1	..
2012	14.0	0.6%	12.2	0.3%
2013	14.6	4.0%	11.6	-4.8%
2014	14.7	1.0%	13.1	13.4%

Source: Society of London Theatre, Broadway League (attendance data); GLA Economics calculations (annual growth rates)

Table 6.18: Gross box office revenues, London and New York, 2011 – 2014

	London		New York	
Year	Gross box office revenue (£min)	Annual growth rate	Gross box office revenue (£mn)	Annual growth rate
2011	528.4	3.1%	676.2	..
2012	529.8	0.3%	730.6	8.0%
2013	585.5	10.5%	762.6	4.4%
2014	623.6	6.5%	826.6	8.4%

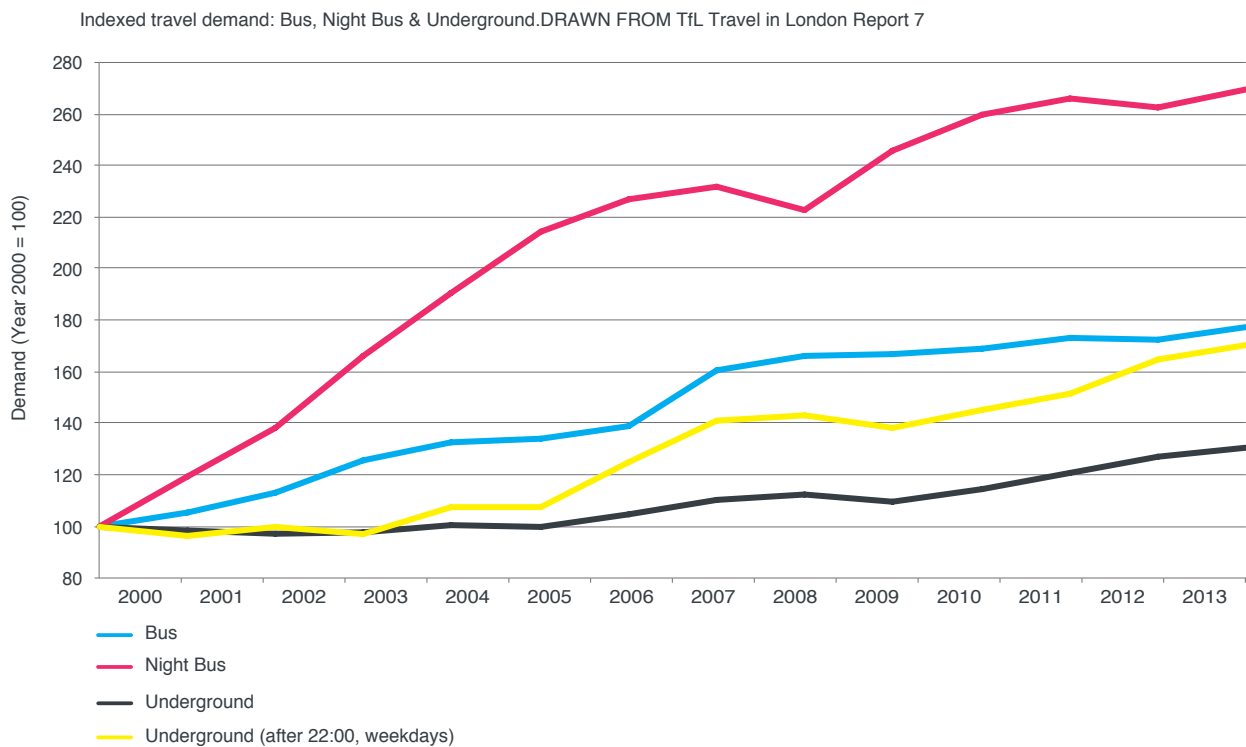
Source: Society of London Theatre, Broadway League (gross box office data); GLA Economics calculations (annual growth rates). Data from Broadway League have been converted to Pounds using annual average exchange rates sourced from Bank of England

One of the major reasons for people to either visit the capital or come to live in London are the cultural offerings that the city has to offer. As well as being a diverse population, London's culture is built upon its history and heritage, as well as through its communities.

London's Night Time Economy

A sector of importance to London is the Capital's Night Time Economy (NTE), and the UK NTE has been valued at £66 billion, making up nearly 6 per cent of UK GDP²²². An indication of the growth in the NTE in London can be seen through the increased demand for late night public transport, such as the night bus and the Underground. Night time bus journeys increased by around 170 per cent between 2000 and 2013, compared to almost 80 per cent for all bus journeys, as shown in Figure 6.6.

Figure 6.6: Demand for travel 2000-2013 (Index, 2000=100)



Source: Transport for London

²²² Furedi, F., 2015, 'Forward into the night'. Night Time Industries Association.

London's entertainment and cultural venues make the Capital attractive to international businesses, tourists, and is an important factor in attracting people to come to live in London. For example, these include London's world class entertainment i.e. West End theatre and music venues; as well as other world famous cultural and sporting venues.

The further development of the night-time economy can be enabled through development of 24 hour public transport services; in terms of the capability to run such a service, London is lacking behind its biggest competitors; additionally with ever-increasing globalisation, London will need the infrastructure in place to trade with the likes of New York, Tokyo, Amsterdam and Berlin, as well as the world's emerging economies²²³. Other cities such as New York, Chicago, Stockholm, Copenhagen, Berlin and Sydney all offer night time services to differing extents²²⁴.

Analysis undertaken on the impact of the Night Tube on London's Night-Time Economy, estimated that there would be a net increase of 520 permanent jobs (taking account of the total number of direct and indirect jobs expected to be supported through the Night Tube, less displacement and multiplier effects). These jobs would equate to net additional output of £15 million per year, and over a course of a 30-year appraisal period, a present value of £355 million. The analysis estimated that the Night Tube would deliver a Benefit Cost Ratio of 3.9:1²²⁵.

On top of direct and indirect benefits (such as employment and time savings), a range of unquantifiable benefits were identified, which include improved commuter journey options for people living further outside of Central London; reductions in congestion at stations after events at major venues; the potential for longer operating hours for bars, restaurants and other venues; the potential for the NTE to expand with a wider range of activities; and more generally, London will continue to be seen as an attractive location to live, work and visit²²⁶.

However, as beneficial as a growing NTE is to London's economy, it is a sector of the economy that comes with considerable costs if not managed properly, which may include those associated with high levels of alcohol consumption (such as an increased need for ambulance/A&E/police services, noise pollution, street cleaning, and the risk of increased crime²²⁷).

²²³ Londonist, 6 October 2015, '24 Hour Cities: How London's Night-Time Economy Compares With Others'.

²²⁴ Volterra Partners for TfL and London First, September 2014, 'Impact of the Night Tube on London's Night-Time Economy'.

²²⁵ Ibid.

²²⁶ Ibid.

²²⁷ Wickham, M., September 2012, 'Working Paper 55: Alcohol consumption in the Night Time Economy'. GLA Economics.

London's Sport Offering

London is a leading destination for major sporting events, which attract significant numbers of attendees and thus generate economic impacts for London. These events also can lead to a variety of associated benefits, including health and social benefits through encouraging participation (and the potential spill over benefits of improved health); or through increased levels of domestic and international tourism as a result of participants and attendees extending their visit as a leisure tourist.

Building upon the legacy of the 2012 Olympic and Paralympic Games, London has been able to secure and retain a number of high profile sporting events, such as the National Football League International Series, the Ride London-Surrey Classic; and upcoming events such as the IAAF World Athletics Championships in 2017 (as outlined in Table 6.19). In addition, London is the home of iconic events such as Wimbledon, a host of national stadia including Wembley, Twickenham and Lord's Cricket Ground; and has five clubs in the Premier League.

Table 6.19: Selected recent and forthcoming major sporting events in London

Year	Event	Venue
Since 2007	NFL International Series	Wembley Stadium
Since 2009	ATP World Tour Finals	O ₂ Arena
2012	Olympic and Paralympic Games	London
Since 2013	RideLondon-Surrey Classic	London, Surrey
2015	EuroHockey Championships	Olympic Park
2015	Rugby World Cup Final	Twickenham
2016	Track Cycling World Championships	Olympic Park
2017	IAAF World Athletics Championships	Olympic Park
2018	Women's Hockey World Cup	Olympic Park
2020	UEFA European Championship Final	Wembley

The economic impacts of sporting events are not insignificant. Analysis from Deloitte estimated that the NFL International Series games in 2013 generated an economic impact of £32 million; through attendees at Wembley Stadium, but also through fan events and associated business events²²⁸. Analysis from SMG for London & Partners estimated the direct economic impact of RideLondon in 2014 of over £16 million²²⁹; and analysis from EY on the impact of the 2015 Rugby World Cup, estimated total direct GVA benefit of up to £1.04 billion to the UK as a whole, through ticket sales, infrastructure investment, stadia spend, ticket revenue from international visitors, and fan zone spend²³⁰.

²²⁸ Deloitte, 2013, 'Economic Impact of the NFL on London and the UK'.

²²⁹ SMG, 2014, 'London and Partners: 2014 RideLondon Economic Impact and Media Exposure Evaluation Report'.

²³⁰ EY, 2015, 'The Economic Impact of Rugby World Cup 2015'. Estimate does not include indirect and induced benefits, estimated at £1.17 billion.

6.5 London as a centre for business tourism

According to the International Congress and Convention Association (ICCA), London has risen from 7th to 6th in terms of the number of international association meetings; and the UK as a whole has risen from 5th to 4th in 2014, as shown by in Tables 6.20 and 6.21.

Table 6.20: Number of international association meetings, by city, 2014

Rank	City	Number of Meetings
1	Paris	214
2	Vienna	202
3	Madrid	200
4	Berlin	193
5	Barcelona	182
6	London	166
7	Singapore	142
8	Amsterdam	133
9	Istanbul	130
10	Prague	118
14	Beijing	104
16	Hong Kong	98

Source: ICCA

Table 6.21: Number of international association meetings, by country, 2014

Rank	Country	Number of Meetings
1	United States	831
2	Germany	659
3	Spain	578
4	United Kingdom	543
5	France	533

Source: ICCA

Table 6.22 shows however that London has seen significant growth in the number of association meetings, sitting only behind Madrid amongst the cities which were in the top ten in 2014. For London, the sizeable jump was between 2011 and 2012, where the number of meetings increased from 115 to 150. It was however Madrid that has seen the largest average annual percentage growth over the six years and growth has been more constant rather than any one particular year accounting for the majority of growth.

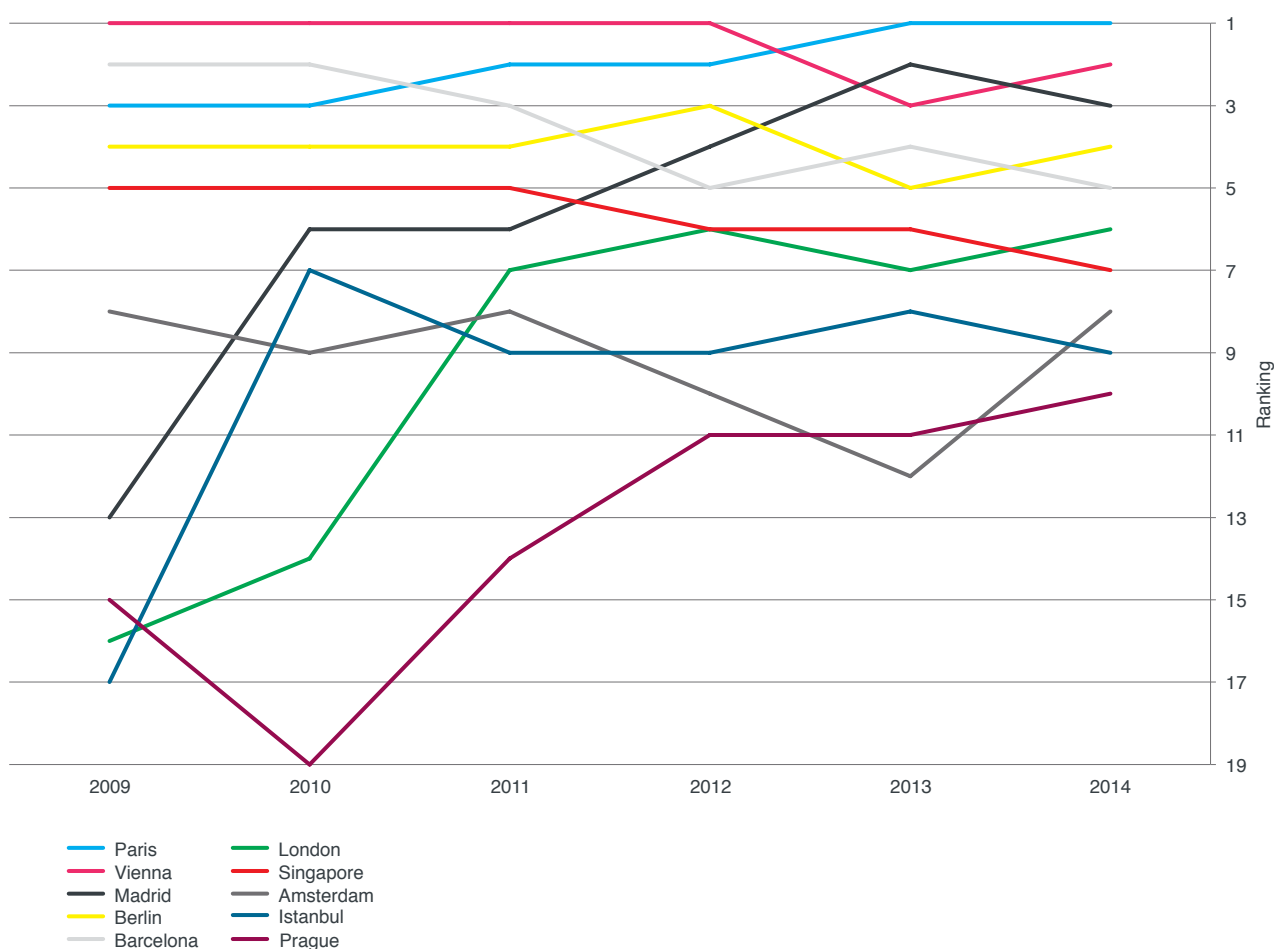
Table 6.22: Growth in number of international meetings, 2009 – 2014, by cities in top 10 in 2014

Rank	City	Average Annual Growth Rate
1	Madrid	18.1%
2	London	14.9%
3	Paris	10.3%
4	Istanbul	10.2%
5	Berlin	8.4%

Source: ICCA, GLA Economics calculations

This is put into more context when looking at the progression in city rankings over the six year period. In 2009, London was ranked 16th, however increase to 7th by 2011 and fluctuated between 6th and 7th thereon. Madrid's growth has arguably been more significant, increasing from 13th to 2nd by 2013. Towards the top of the rankings, Paris has seen consistent growth in the numbers of meetings (with a notable increase between 2010 and 2011), and has overtaken Vienna to be the leading city in the world for international association meetings.

Figure 6.7: Progression in city rankings, by cities in top 10 in 2014; 2009 – 2014



Source: ICCA, GLA Economics calculations

London has improved in city rankings of the number of association meetings held in the city, despite London having comparatively less space for events than other locations. Table 6.23 outlines the largest exhibition hall space by space, and shows that only the NEC in Birmingham as the only venue in the UK within the top 20. London's largest exhibition venue, the ExCeL Arena, has a capacity of 110,400 square metres, putting it as the 36th largest exhibition venue in the world (see Table B5 in Appendix B), and 26th in Europe.

Table 6.23: Largest venues based on indoor exhibition space, 2011

Rank	Venue	Location	Indoor Exhibition Space (sq. metres)
1	Messe Hannover	Hanover, Germany	466,100
2	Messe Frankfurt	Frankfurt, Germany	345,697
3	Fiera Milano	Milan, Italy	345,000
4	Chinese Export & Import Commodities Fair Ground	Guangzhou, China	338,000
5	Koelnmesse	Cologne, Germany	284,000
6	Messe Duesseldorf	Duesseldorf, Germany	262,704
7	Paris Nord Villepinte	Paris, France	241,582
8	McCormick Place	Chicago, USA	241,524
9	Feria Valencia	Valencia, Spain	230,602
10	Porte de Versailles	Paris, France	228,211
16	NEC Birmingham	Birmingham, UK	198,983
36	ExCeL London	London, UK	110,411

Source: UFI

Despite these rankings showing that London does not have an exhibition venue within the top 30 in terms of size, this does not necessarily impact on their position within global rankings for cities with the greatest number of association meetings. A comparison of the top ten cities in this measure, compared with the 55 venues which have indoor exhibition space in excess of 100,000 square metres²³¹ shows that this does not necessarily impact on a city's ability to attract association events.

Table 6.24: Comparison of city rankings for number of international association meetings and availability of large exhibition space

Ranking for the number of international association meetings	Location	Number of venues with greater than 100,000 sq. metres of indoor exhibition space	Highest ranked venue based on indoor exhibition space
1	Paris	2	7 th (241,582 sq. m)
2	Vienna	0	..
3	Madrid	1	13 th (200,000 sq. m)
4	Berlin	1	24 th (160,000 sq. m)
5	Barcelona	2	12 th (205,000 sq. m)
6	London	1	36th (110,411 sq. m)
7	Singapore	1	54 th (100,000 sq. m)
8	Amsterdam	0	..
9	Istanbul	0	..
10	Prague	0	..

Source: UFI

London does however have a large number of venues capable of hosting conferences. According to the London & Partners destination guide, London has ten venues capable of hosting conferences for over 1,000 people and a further five venues capable of hosting events for over 500 people.²³²

²³¹ Source: UFI. A full list of all venues with indoor space in excess of 100,000 square metres is provided in Appendix Table B4

²³² London & Partners, 'London: A Destination Guide for Associations'.

6.6 London's Airports

London Heathrow airport takes the third most passengers globally. In the year to April 2015, preliminary estimates are that 73.7 million passengers went through Heathrow, the third largest airport in the world in terms of passenger numbers. Since 2010, passenger numbers have increased by 11.5 per cent, and overtook Chicago O'Hare as the third largest airport in the world in 2011.

Table 6.25: Cities with largest numbers of passenger numbers, and other selected global cities (millions of passengers)

Rank	Airport	2000	2005	2010	2011	2012	2013
1	Atlanta	80.2	85.9	89.3	92.4	95.5	94.4
2	Beijing	..	41.0	73.9	78.7	81.9	83.7
3	London Heathrow	64.6	67.9	65.9	69.4	70.0	72.4
4	Tokyo	56.4	63.3	64.2	62.6	66.8	68.9
5	Chicago	72.1	76.5	66.8	66.7	66.6	66.8
7	Dubai	..	..	47.2	51.0	57.7	66.4
8	Paris	48.2	53.8	58.2	61.0	61.6	62.1
19	New York	32.9	41.9	46.5	47.6	49.3	50.4

Source: Airports Council International

However over the course of the last five years, there has been significant growth in airports across the Middle East and Asia. Table 6.25 shows that back in the year 2000, Beijing and Dubai were not listed amongst the top 30 airports for passenger numbers (Beijing only entered the top 30 in 2004; Dubai in 2007). The following table outlines the airports with the greatest growth in passenger numbers (amongst those within the top 30 airports by passenger numbers in both 2010 and in the year to January 2015).

Table 6.26: Cities with the largest growth in passenger numbers, between 2010 and the year to January 2015²³³

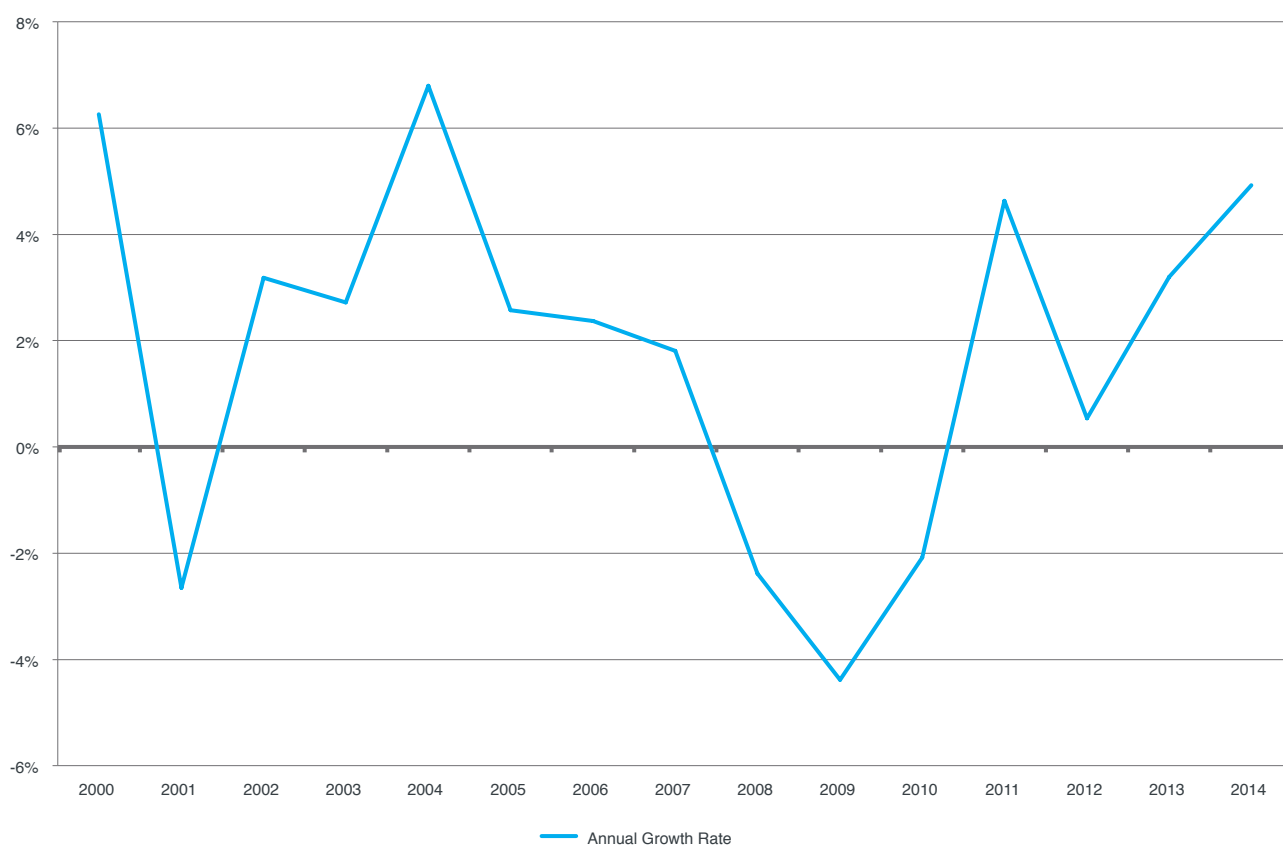
Rank	Airport	Average annual growth rate
1	Dubai	10.7%
2	Guangzhou	7.5%
3	Singapore	6.4%
4	Shanghai	6.3%
5	Jakarta	6.2%
17	London Heathrow	2.8%

Source: GLA Economics calculations; Airports Council International

²³³ Year to January 2015 used as the proxy for 2014 since final annual data for 2014 not available.

In 2014, there were a total of 135.1 million passengers at London airports (Heathrow, Gatwick, Stansted and City), an increase of 4.9 per cent on the year previous. Figure 6.8 shows that following the recession, there has been a pick-up in passengers from 2011 onwards, reaching record highs in 2014. Over the last fifteen years, passenger numbers at London airports have increased by 30.3 per cent, and since 2010, the increase was 13.9 per cent.

Figure 6.8: Annual growth in total passenger numbers at London airports, 1999 – 2014



Source: GLA Economics calculations; Civil Aviation Authority

7. INTERNATIONAL MIGRATION

7.1 Main Findings

- In terms of absolute numbers London has the second largest foreign-born population of any city in the world, behind New York, and is in line with other global cities such as Hong Kong, Sydney, and Singapore in terms of the share of foreign-born in its population.
 - The total resident population of London increased by 24 per cent (from 6.6 million to 8.2 million) between 1981 and 2011. In these three decades, the resident foreign-born population increased by almost 150 per cent (from 1.2 million to 3.0 million). Changes in the stock of the foreign-born population in London can be seen as having directly contributed to a significant proportion of the change in London's population at these two points in time.
 - Nearly half of all migrants living in London in 2011 arrived since 2000, while only one in five immigrant Londoners had been resident in the UK for more than thirty years. In contrast however, of those born in Ireland or in countries within the Caribbean more than half had arrived before 1981, whereas 87 per cent of those from Poland had arrived since 2001.
 - Based on ONS estimates of the main reason for migration to the UK as a whole, work-related reasons has constituted the main reason in all but three of the past 20 years since 1995.
 - At the time of the 2011 Census, 25 per cent of London residents in employment held a non-UK passport. Foreign workers (on this passport-based measure) accounted for 48 per cent of London residents working in the accommodation and food sector, and more than 1 in 3 of those in the construction and administrative and support service sectors.
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7.2 Introduction

Over the past 50 years, immigration has emerged as a major global force. This is a structural feature of nearly all industrialised countries, and particularly their major cities. This chapter investigates: the impact of international migration on London's population over time, and considers the drivers and reasons for migrating to London. As a consequence of the past changes in migrant stocks, and with consideration of the UK visa system, the chapter concludes by considering the 'reliance' of London's economic sectors on international migrants.

7.3 The stock of foreign-born population across global cities

Migrants are typically defined as: 'people born outside the UK, who have been, or plan to be, in the UK for a period greater than 12 months'. Official statistics however do not capture information on the length of stay or intended length of stay²³⁴, and instead are confined to country of birth only. This measure therefore includes those born overseas, regardless of whether they are still foreign nationals or have subsequently acquired UK citizenship²³⁵. These may not however all be (or have ever been) migrants to the UK in the standard sense, as some of those born overseas will be the children born abroad of UK national parents, such as the offspring of service personnel stationed in Germany after the wars.

Since it takes account of subsequent outflows, information on the resident migrant stock can however allow us to see more clearly the link between successive waves of migration, and the longer-term impacts on the resident population. Censuses in the UK since 1841 have asked questions about birthplace, so give information on the number of people born overseas. This shows that the proportion of Londoners born outside the UK has more than doubled since 1981 (from 18 per cent to 37 per cent). Overall, almost three million people living in London at the time of the 2011 Census (37 per cent) were born outside the UK²³⁶. In contrast, for England and Wales outside London less than one in ten persons was born outside the UK (see Table 7.1).

²³⁴ They therefore include those who may have lived in the UK for decades as well as those who may reside in the UK for only a year.

²³⁵ Home Office analysis of UK residents born abroad found that 45 per cent of foreign born residents in England and Wales (3.4 million out of 7.5 million) held a British passport. Source: Home Office, September 2014, 'The reason for migration and labour market characteristics of UK residents born abroad'.

²³⁶ Based on APS estimates for 2014, 3.08 million London residents were not UK born, equivalent to 36.5 per cent of the total resident London population. These estimates are subject to sample variability which means that the figures are broadly unchanged since the 2011 census.

Table 7.1: Foreign born population in London, 1971-2011

Year	London population	Foreign-born	Share of foreign-born	Rest of Europe	Rest of World
1971	7,236,721	1,103,616	15%	198,847	904,769
1981	6,608,598	1,203,022	18%	451,013	752,009
1991	6,679,699	1,451,041	22%	495,651	955,390
2001	7,172,090	1,940,389	27%	555,822	1,384,567
2011	8,173,941	2,998,264	37%	998,694	1,999,570

Source: ONS Census data commissioned tables: 1971-2011. Notes: the London population is a count of persons present in 1971 with a recorded country of birth, residents for 1981, and all usual residents from 1991 onwards.

This makes London the city with the second largest foreign-born population behind New York City in terms of absolute numbers²³⁷, and in line with other global cities such as Hong Kong, Sydney, and Singapore in terms of the share of foreign-born in its population (see Table 7.2).

²³⁷ U.S. Census Bureau, 2011, American Community Survey estimates a foreign-born population to be almost 3.1 million in 2011 (equivalent to 38 per cent of the New York resident population), <http://factfinder.census.gov/>

Table 7.2: Estimates of the foreign born population in selected global city regions

Global city	Foreign-born population ('000s)	Share of total population (%)	Source
United Arab Emirates	7,827	*84%	2013 UN Population database
New York, US	3,067	38%	2011 American Community Survey
London	2,998	37%	2011 Census, ONS
Hong Kong SAR	2,805	39%	2013 UN Population database
Toronto, Canada	2,537	37%	2011 National Household Survey
Singapore	2,323	43%	2013 UN Population database
Paris, France	2,007	19%	2011 Census, Insee
Sydney, Australia	1,759	40%	ABS Census, 2011
Qatar	1,601	*74%	2013 UN Population database
Los Angeles, US	1,490	39%	2011 American Community Survey
San Francisco, US	1,341	36%	2013 American Community Survey
Madrid, Spain	622	20%	2014, Local Population Register
Tokyo, Japan	322	2%	2010, Population Census of Japan

Notes: Sources may not be directly comparable due to differences in the treatment of short-term residents within the target population, as well as the effects of sampling and response patterns in different countries.

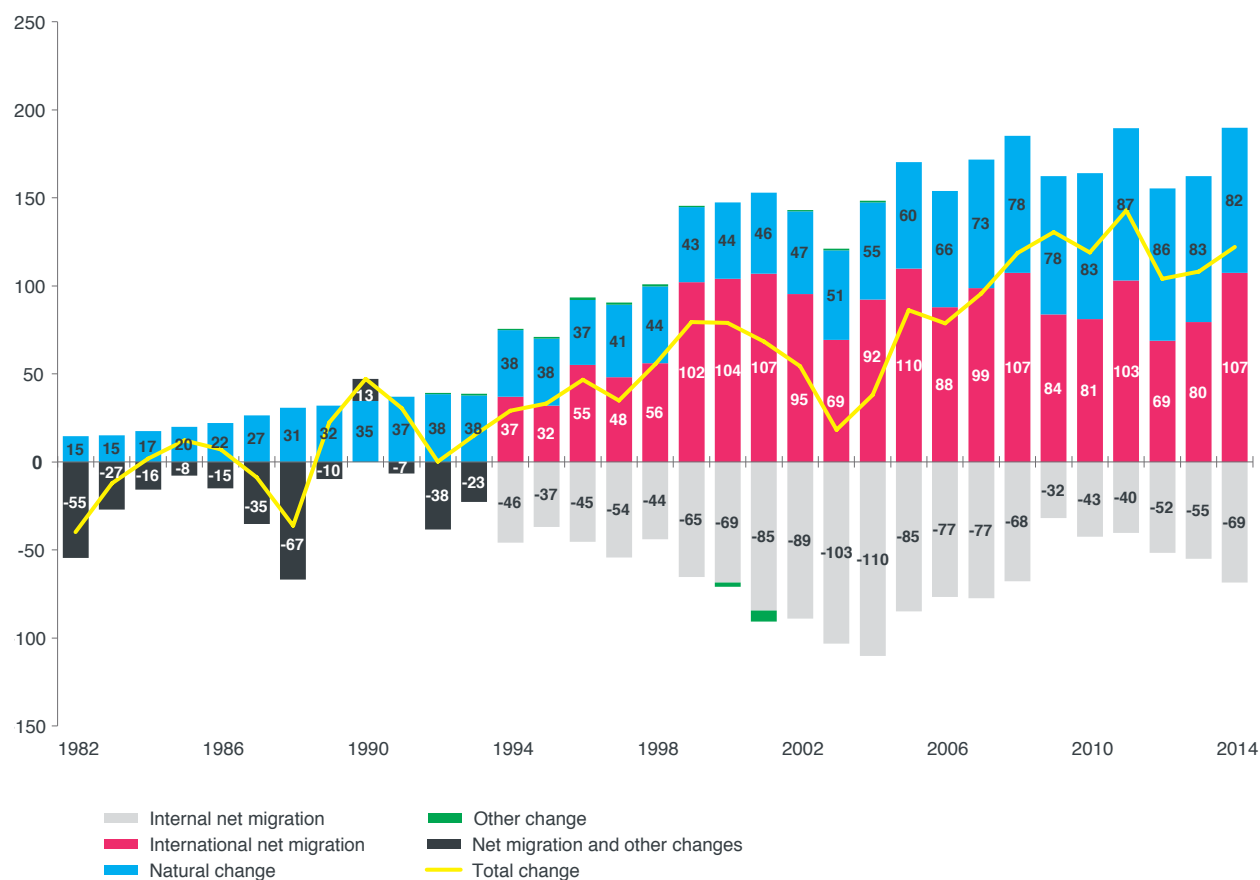
*Data used to produce estimates for Qatar and the UAE refer to foreign citizens.

Impact on net population increase: how many migrants settle in London?

The total resident population of London increased by 24 per cent (from 6.6 million to 8.2 million) between 1981 and 2011. In these three decades, the resident foreign-born population increased by almost 150 per cent (from 1.2 million to 3.0 million). Changes in the stock of foreign-born population in London can be seen as having directly contributed to a significant proportion of the change in London's population at these two points in time.

Considering instead the migration flows into and out of London, the picture of London's changing population is more complex. In addition to net migration flows, population change in London is also affected by migration flows between the Capital and the rest of the UK (internal migration), as well as the rates of births and deaths (natural change). There are however considerable challenges in distributing long-term migration flows to different areas in the UK as the area of intended or initial arrival can often differ to the area of residence.

ONS population estimates show that international net migration was a major component of London's population growth over the past two decades (Figure 7.1), exceeding natural change as a driver of London's demographic trends in all years from 1996 to 2010. However, as a result of a significant drop of net international migration, 2011/12 was the first year in more than a decade when natural change contributed more to London's population growth than net international migration. Overall, between 1994 and 2014 net international migration resulted in an average annual addition of 82,000 people to the London population.

Figure 7.1: Net migration and natural change, London 1982-2014

Sources: ONS, net migration and natural change by region, mid-1992 to mid-2014. Data prior to 1992 are taken from the Office of Population Census and Surveys. Notes: internal net migration figures are based on GP registrations. International migration figures are based on International Passenger Survey (IPS) estimates of long-term international migration. No components of change are available for the years 1982 to 1994, so natural change has been calculated based on births and deaths taken from calendar year data and averaged over two years to estimate mid-year births and deaths. The estimated 'net migration and other changes' in this period have been taken to be the difference between population change and natural change.

Migration however has different impacts over time, as each cohort moves through their life cycle, and the preferences/aspirations shaping their residential decisions evolve. As such, analysis based on annual flows does not account of the contribution which past migration has had on natural change, nor does it take account of the extent to which internal flows between London and other regions include those which had previously arrived from overseas. In addition, native-born may also contribute to net migration through expatriation and returns.

In the case of natural change, due to the relatively younger age structure and higher fertility rates among foreign-born London residents, foreign-born mothers account for an increasing proportion of all births in London²³⁸. In 2014, births to foreign-born women made up 58 per cent of all live births (73,989 out of 127,339), and this proportion has risen in each year since 2001 (up from 43 per cent). This is considerably higher than the 26 per cent rate of births to foreign born women across England and Wales as a whole²³⁹. This suggests that international migration may also indirectly contribute to London's population growth over time, though it is possible that this may be offset by migrant parents' subsequently deciding to move out to neighbouring regions as preferences for city living change over the life cycle.

7.4 The drivers of migration to London over time

In a seminal review of the literature on theories of international migration, Massey et al. found that while 'there is no single, coherent theory of international migration... the conditions that initiate international movement may be quite different from those that perpetuate it across time and space'²⁴⁰.

Why migration begins?

In economic theory, international migration is typically characterised as a sequence of two rational decisions: whether to migrate, and where to migrate²⁴¹. The decision to migrate results from an analysis of the expected costs and benefits of a move, in which the costs to migrate are primarily front-loaded, while the benefits materialise only over time. It follows that the decision to migrate is primarily motivated by a desire to maximise incomes and/or minimise risks.

²³⁸ Source: Tromans, N., Natamba, E., & Jefferies, J., 2009, 'Have Women Born outside the UK Driven the Rise in UK Births since 2001?' Population Trends (136): 28-42.

²³⁹ Source: ONS, August 2014, 'Parents' country of birth, 2001-2014'.

²⁴⁰ Massey, D., et al., 1993, 'Theories of international migration: A review and appraisal'. Population and Development Review, vol. 19(3): 431-446.

²⁴¹ Boeri, T., & van Ours, J., 2013, 'Migration policies'. Chapter 9 in 'The economics of imperfect labour markets'. Princeton University Press.

International migration is therefore more likely to occur the greater the expected lifetime incomes (relative to the home region), the more that value is attached to the future (i.e. the lower the discount rate), and the lower the costs (or constraints) to migration. The decision to migrate to London is thereafter predicated on the benefit-cost ratio of such a move being greater than those associated with alternative destinations.

Many authors have however noted that there are innumerable reasons why people may decide to migrate, and indeed the number of factors found to be significant in explaining these decisions is extremely large: from home ownership to public goods provision, and the local climate. In this context, a vast literature exists trying to explain the determinants of migration in relation to broader indicators of standard of living, but which factors are truly decisive remains contested²⁴².

Largely ignoring these micro-level decisions, alternative theories focus instead on forces operating at much higher levels of aggregation. In one approach adopted by Piore²⁴³, the structural requirements of modern industrial economies result in a chronic and unavoidable need for foreign workers that are willing to carry out low-status work ('dual labour market theory'). In another approach, Wallerstein²⁴⁴ sees immigration as a consequence of economic globalisation and market penetration across national boundaries ('world systems theory'). In this sense, the spatial concentration of global activities in urban centres such as London creates a strong demand for a highly educated, internationally-oriented workforce on the one hand and a consequent demand for locally delivered, non-tradable services from semi-skilled and unskilled workers on the other²⁴⁵.

Though conceptually distinct, this wide range of theories is neither inconsistent nor mutually exclusive. In this regard, the authors of 'Worlds in motion' conclude that 'all of them play some role in accounting for international migration... although different models predominate at different phases'²⁴⁶.

²⁴² De Haas, H., April 2011, 'The determinants of international migration: conceptualising policy, origin and destination effects', International migration institute, University of Oxford.

²⁴³ Piore, M. J., 1979, 'Birds of Passage: Migrant Labor in Industrial Societies'. Cambridge University Press.

²⁴⁴ Wallerstein, I., 1974, 'The Modern World System, Capitalist Agriculture and the Origins of the European World Economy in the Sixteenth Century'. New York: Academic Press.

²⁴⁵ Sassen, S., 1991, 'The Global City: New York, London, Tokyo'. Princeton: Princeton University Press.

²⁴⁶ Massey, D. S., et al., April 1999, 'Worlds in motion: understanding international migration at the end of the millennium'. International studies in demography, Clarendon Press Oxford.

Why migration continues?

Further, the conditions that initiate international movement may be quite different from those that perpetuate it across time. Although differences in earnings, quality of life, industrial structure, and market penetration may continue to cause people to move, migration flows can create new conditions that function as independent causes themselves²⁴⁷: social networks spread, institutions develop, and certain roles may become increasingly labelled by domestic residents as ‘immigrant jobs’. These network effects, it is argued, mean that migration to world cities can continue and even accelerate in spite of deteriorating relative economic conditions²⁴⁸.

Examining the long-term patterns of Jewish, Indian and Jamaican migrants to London boroughs, research by Geoffrey Meen finds a high spatial concentration of these groups and a high degree of persistence in spatial patterns, consistent with the importance of social networks²⁴⁹.

The origin of migrants residing in London over time

The profile of arrivals to the UK, resident in London at the time of the 2011 Census, varies considerably for different countries. Nearly half of all migrants living in London in 2011 arrived since 2000, while only one in five immigrant Londoners had been resident in the UK for more than thirty years. In contrast however, of those born in Ireland or in countries within the Caribbean more than half had arrived before 1981, whereas 87 per cent of those from Poland had arrived since 2001 (see Table 7.3).

Table 7.3: London residents with selected countries or regions of birth, percentages arrived in UK by year

Country of birth	Born outside the UK (000s)	Before 1981	1981-2000	2001-2011
All born outside UK	2,998	21	30	49
India	262	32	20	48
Poland	158	4	10	87
The Caribbean	144	59	23	17
Ireland	130	55	24	21
Pakistan	112	23	29	48
Australasia	83	9	21	70

Source: GLA Intelligence, 2013, Londoners born overseas, Table 8.1. Notes: percentage totals may not sum to 100 due to rounding.

²⁴⁷ Massey, D., et al., 1993, ‘Theories of international migration: A review and appraisal’. Population and Development Review, vol. 19(3): 431-446.

²⁴⁸ Light, I. September 2004, ‘Immigration and ethnic economies in giant cities’. International Social Science Journal, vol. 56: 385-293.

²⁴⁹ Meen, G., November 2012, ‘The adjustment of housing markets to migration change: lessons from modern history’. Scottish Journal of Political Economy, Vol. 59, No. 5.

In terms of the age distribution of migrants on arrival, over 60 per cent of London residents born overseas came to the UK when they were aged between 16 and 34²⁵⁰, and 24 per cent were under 16 when they arrived. This pattern seems to be in line with economic theory, which suggests that migration is more likely the greater the expected lifetime returns.

7.5 Reasons for migrating to London and the UK

Based on a 2014 poll, London came out on top when over 200,000 people across 189 countries were asked “which cities would you consider working in abroad?” Unprompted 16 per cent of the respondents said that they would move to the UK capital, ahead of New York and Paris in second and third place respectively²⁵¹.

Work constitutes the main reason for moving to London and the UK

Based on ONS estimates of the main reason for migration to the UK as a whole, work-related reasons has constituted the main reason in all but three of the past 20 years since 1995 (see Figure 7.2). In the period 1980 - 1994, the main reason for migration to the UK was instead mainly for dependents to accompany migrants already working in the UK, to join family members or other reasons (such as asylum).

Since 1995, the numbers of migrants moving to the UK each year for work increased dramatically in 1998 and again in 2004, followed by a drop in 2008/09 during the financial crisis and subsequent rapid increase in 2014 based on the latest estimates. In line with economic theory, migration for work-related reasons therefore seems to coincide strongly with the relative strength of economic activity in the UK.

Notably, the sizeable jumps in the numbers moving to the UK (and London) for work in 1998 and 2004 also coincided with changes in policy. After 1997, LSE research²⁵² highlights that there was a large increase in the number of work permits issued to workers outside the EU (particularly to migrants arriving from English-speaking countries such as the US and Australia). While since 2004 people from EU accession countries have been able to move to the UK, and migrants from these countries have been particularly likely to report coming for work.

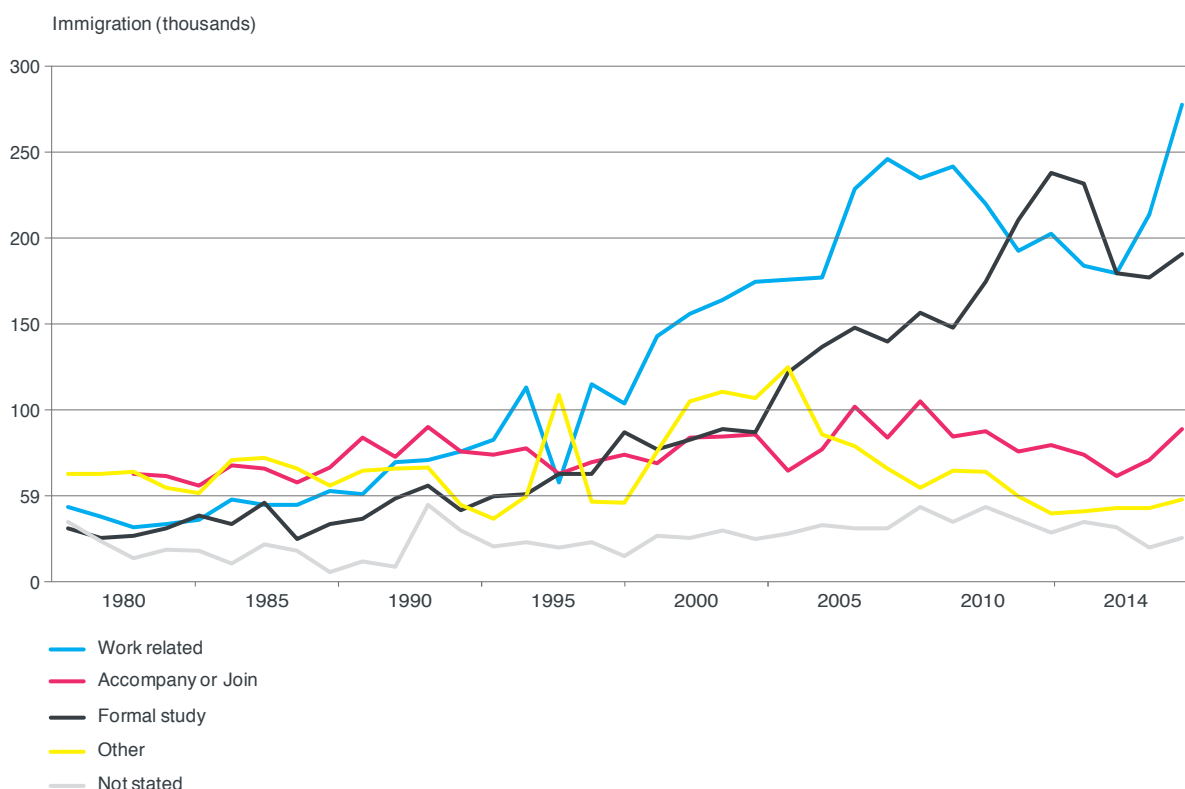
²⁵⁰ GLA Intelligence, June 2013, ‘Census: Londoners born overseas’, Table 1.

²⁵¹ Note: the question allowed respondents to indicate up to five answers. Source: Boston Consulting Group/The Network, 2014, ‘Decoding Global Talent’. Web survey.

²⁵² Portes, J., 2014, ‘Immigration and the UK economy: interaction between policy and economic research since the mid-1990s’. In ‘Migration and London’s growth’. LSE London.

At the same time as the number of work-related migrants declined during the recession in 2008/09, formal study briefly overtook work as the main reason for migration to the UK. The pull of UK universities and colleges in particular are a significant reason for temporary migration to the UK. After the US, the UK was the second most popular destination for international tertiary students in 2012 based on the latest data from UNESCO²⁵³, with international students particularly important in the Capital. In London there were approximately 103,770 international students enrolled in one of the Capital's 40 universities and higher education institutes in 2013/14. That's equivalent to 28 per cent of the total student population in London (compared to 18 per cent for the UK as a whole)²⁵⁴.

Figure 7.2: Main reason for immigration to the UK, 1980 - 2014



Source: ONS migration statistics quarterly report, November 2015. Notes: 1) A migrant is defined as someone who changes his or her country of usual residence for a period of at least 12 months. 2) Figures for 1980 to 1990 are IPS estimates, 1991 onwards are LTIM estimates. 2) Figures for 2014 are provisional estimates and are represented by a cross. All other figures are final estimates. 3) "Work related" includes "definite job" and "looking for work" in all years, except for 1995 when "looking for work" was included in the other category.

²⁵³ Data relate to international students defined on the basis of their country of residence. These data exclude students who are under short-term study and exchange programmes that last less than a full school year. See: <http://www.uis.unesco.org/Education/Pages/international-student-flow-viz.aspx>

²⁵⁴ Source: HESA student record 2013/14, table 1. Notes: London data relates to the 40 publicly funded HE institutions in the London Government Office region (including Royal Holloway which is part of the University of London, though it is recognised by HESA as located in the South East region). Data does not include Open University students studying in London, University of London External Programme students, or students in private colleges. Figures may not match to the totals as HESA records for each HE provider are rounded to the nearest 5.

This data on the reported intentions of annual flows of migrants into the UK however fails to take account of the length of stay beyond 12 months, and the propensity to settle, which ultimately shapes the changes in London's population over time. Looking at the migration status of non-EEA migrants five years after entry into the UK via the immigration system, Home Office research²⁵⁵ found that the propensity to settle or remain in the UK varied considerably by the initial route of entry. For those arriving in 2008 by the family visa, more than four in five (81 per cent) had either settled or had valid leave to remain in the UK after five years, compared to 53 per cent for those arriving as dependants, 28 per cent of those arriving via a skilled work visa, and just 16 per cent of those arriving for study²⁵⁶. This reflects that non-EEA arrivals to the UK for work, and particularly those coming for study, are more likely to be in the UK on a short-term or temporary basis²⁵⁷.

This in turn has implications for the main reasons for migration among the overall stock of migrants in the UK. Making use of new data from the Annual Population Survey (APS), Home Office research²⁵⁸ found that family and dependant routes dominated in terms of the reasons as to why the foreign-born population originally came to the UK. Of the 7.5 million foreign born residents in England and Wales, 41 per cent gave their main reason for coming to the UK as joining a settled person/family or accompanying another migrant, while 26 per cent came to work and 14 per cent for study. This contrasts significantly with the data presented on annual inflows, which instead shows that just 14 per cent of arrivals in 2013 came to accompany or join, while 41 per cent came for work and 34 per cent for study.

²⁵⁵ Home Office, February 2015, 'Migrant Journey: fifth report'.

²⁵⁶ A valid visa does not confirm that a migrant is still in the UK as it is possible that they left prior to the visa's expiry. Equally, a visa with expired leave to remain does not mean that the migrant has necessarily left the UK.

²⁵⁷ Given this propensity to stay for short periods of time, relative to other types of migrant, it is arguable that international students should not be considered to be truly 'long-term' international migrants.

²⁵⁸ Home Office, September 2014, 'The reason for migration and labour market characteristics of UK residents born abroad'

7.6 The role of international migrants in London's sectors

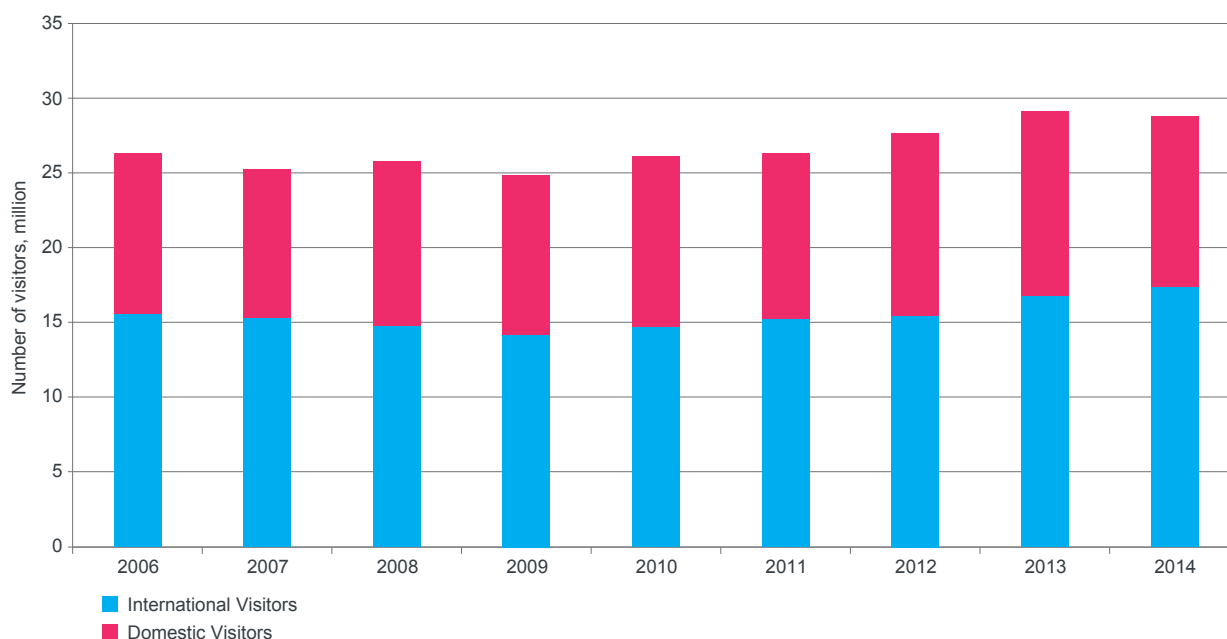
Foreign workers make a sizeable contribution to particular sectors in London's economy.

At the time of the 2011 Census, 25 per cent of London residents in employment held a non-UK passport. Foreign workers (on this passport-based measure) accounted for 48 per cent of London residents working in the accommodation and food sector, and more than 1 in 3 of those in the construction and administrative and support service sectors (see Figure 7.3).

These industry averages however mask particular sectoral concentrations of non-British passport holders in employment (see Table 7.4). For example, almost 60 per cent of London residents in employment in cleaning activities, and hotels were non-UK passport holders. Non-British passport holders are also prevalent in other sectors which tend to be categorised as low-skill and low-wage jobs, such as security and investigation activities, and residential care.

At the same time, there is also a particular concentration of non-UK passport holders in employment in typically high-skilled and high value added sectors that London specialises in, such as financial services and computer programming.

Figure 7.3: London workers by industry and passport held, 2011



Source: ONS 2011 Census, CT0385. Notes: All usual residents aged 16 or over in employment the week before the Census. The dataset counts each person only once so people only appear in one category irrespective of the number of passports held. In cases where a person recorded having more than one passport, they were categorised in the following priority order: 1) UK passport, 2) Irish passport, 3) Other passport. The data excludes residents that did not hold a passport at the time of the Census.

Table 7.4: Foreign workers in London by selected industry and passport held, 2011

Industry sector (detailed)	Workers with non-UK passport	Non-UK workers as share of total	Top non-UK nationalities
Households as employers of domestic personnel	7,348	62%	Philippines, Poland
Cleaning activities	39,683	59%	Poland, Portugal
Hotels and similar accommodation	22,627	58%	Poland, India, Lithuania
Restaurants and mobile food services	43,932	52%	Poland, Italy, India
Event catering and other food service activities	39,945	45%	Poland, Italy, Portugal
Residential care activities	12,760	35%	Philippines, Nigeria, India
Security and investigation activities	10,904	34%	Nigeria, Pakistan
Construction	83,915	33%	Poland, Romania, Ireland
Beverage serving activities	9,101	33%	Poland, Ireland
Financial service activities (except insurance and pension funding)	60,935	31%	France, Ireland, India
Computer programming, consultancy and related activities	31,297	30%	India, Ireland

Source: 2011 Census, CT0385. Notes: see Figure 7.3 opposite.

Foreign-born workers are over-represented in London's low-skilled occupations...

In terms of occupations, London residents born outside the UK are more likely to be employed in low-skilled occupations than UK-born in London (44 per cent compared to 31 per cent)²⁵⁹. In 2014, foreign born workers resident in London accounted for 62 per cent of elementary occupations, of which 59 per cent were born outside the European Economic Area (EEA)²⁶⁰, and would therefore have required an entry visa if they did not hold a UK or other EEA passport.

The distribution of foreign-born workers is likely to be different across low-skilled occupations as some occupations may be more suitable to foreign-born workers than others. For example, language skills may be a barrier for access in certain low-skilled occupations such as administrative roles, whilst other occupations may be well suited to accommodate foreign-born individuals where foreign language skills may be valuable in serving an international customer base (e.g. in retail).

...though they are as likely to hold a degree as UK-born workers in London

Half of both UK-born and non-UK born employed Londoners have a degree (compared to 28 per cent of UK-born and 39 per cent of non-UK born residents in the rest of the UK). Foreign born workers in London are however four times as likely to have 'other qualifications' as their highest educational attainment (16 per cent) compared to UK-born workers living in London (4 per cent)²⁶¹.

²⁵⁹ Low-skilled occupations include administrative and secretarial occupations (SOC 4), caring, leisure, sale and customer service (SOC 6 & 7), process, plant and machine operatives and elementary occupations (SOC 8 + 9). Source ONS Annual Population Statistics, January – December 2014

²⁶⁰ ONS, Annual Population Statistics, January – December 2014.

²⁶¹ ONS, Annual Population Statistics, January – December 2014.

8. CONCLUSION

London's economy has been shaped by globalisation – the increasingly connected and integrated nature of the international economy. This integrated international economy has, in large part, arisen through increases in trade over time. This has led to London's industrial structure changing significantly in the last three decades with a marked decline in manufacturing, and a strong shift towards a service-led economy, giving an economy worth around £364 billion in 2014, more than double its value in nominal terms compared to 1997 and up 6.8 per cent on 2012. In terms of exports London's totalled around £139.9 billion in 2013 with service exports accounting for the majority of total exports (77 per cent). Furthermore, London exported over half of all UK service exports, whilst London's goods exports accounted for around 11 per cent of total UK goods exports in 2013.

London now stands as Europe's preeminent global city and arguably the capital of the world. For example London's economy ranks highly both domestically and internationally, with it producing 22.6 per cent of the UK's output and if it were a nation it would rank 8th out of the European economies behind the Netherlands but ahead of Belgium and Sweden. Further numerous surveys rank it highly in an international context with London coming in at number 1 in the following surveys: Cities of Opportunity 2014 – PwC, European Attractiveness Survey 2015 – EY, Global Destination Index 2015 – MasterCard, Global Power City Index 2015 – The Mori Memorial Foundation, The World According to GaWC 2012 – Globalization and World Cities (Loughborough University), European Cities Monitor 2011 – Cushman & Wakefield, Global Financial Centre Index 18 – Z/Yen, and European Digital City Index 2015, to name just a few.

London is also a highly attractive place to work with it attracting a net inflow of commuters of over half a million per day and is thus an important source of employment in the Greater South East. While the percentage of London's working age population with tertiary level education stands at over 50 per cent ranking it as the highest of any European NUTS 1 region (with the South East coming in at fifth place), and significantly outranking New York on this measure.

Further, London enjoys a relatively benign tax structure with it enjoying low corporation tax levels compared to other major competitors; however its top rate of income tax is relatively uncompetitive in an international context. And, while although high by European standards, London's population density is dwarfed by other global cities making it relatively uncongested compared to other cities on the global stage.

However, there is a danger that the undoubted advantages that London enjoys as a city for business and relaxation may blind us to the challenges that the Capital already faces and may face in the years ahead. Indeed risks abound for London's position; for instance, although there are some signs of a recent pickup, growth in productivity in the UK and London since 2008 has been lagging compared to other significant international competitors. Further, the cost of housing and the supply of new housing to meet the needs of a growing population is one of the major concerns facing London going into the 2020s.

This lack of available property is also reflected in the office market where a number of international surveys have highlighted high office rent costs and forecasted declines in office vacancy rates compared to other world cities. While the impact of pollution, both environmental and noise, makes the city a less enjoyable place in which to live and work in. And, although by far not the worst internationally, continued improvement in both education and healthcare are required to ensure London remains attractive to a global workforce.

Still London is an attractive city for investment, for tourism and as a place to aspire to work and live in. Thus Savills reports that the proportion of sales to international buyers of existing homes in 'prime' London have increased from 23 per cent in 2005 to 40 per cent in 2014. With, international buyers for existing properties being concentrated in prime central London and the Canary Wharf area to the East. However, there is conflicting evidence that the more recent settlement experience of international migrants has had much effect on London house prices, while survey evidence indicates that without overseas buyers some property developments would not have been started at all. Still, it should be noted that compared to other countries the UK has one of the most open housing markets to international investment

In terms of wider investment, London contributes to almost two-fifths of all inbound FDI projects to the UK, with North America accounting for almost half of all inbound FDI projects to London, a greater proportion than for the UK as a whole. While, inward investment to London follows London's industrial specialisations, with ICT & electronics, creative industries, and financial services being the sectors with the greatest number of inbound investment projects. Between 2010/11 and 2014/15, compared to other global cities, London is ranked second for the number of inward investment projects, third for the capital investment associated with them, and fourth for the number of jobs created. However, London also acts as a source of investment to the rest of the world, with this investment being primarily focussed in business services and finance.

London is an important destination for international visitors, with 17.4 million overseas visitors coming to the Capital in 2014, a record high; spending £11.8 billion on their visits. This has led to the value of tourism to London being more than double that of any other region of the UK, and tourism in London is estimated to have supported 283,000 jobs in 2014. Further London is forecast to be the most visited city in the world in 2015 according to the MasterCard Global Destination Cities Index. While, London's ranking as a destination for international association meetings has also improved from 16th in 2009 to 6th in 2014; London however only has one venue with exhibition space greater than 100,000 square metres (the ExCeL, which is only the 36th largest exhibition venue in the world). Further, although London Heathrow remains the third largest airport in the world in terms of passenger numbers, airports across the Middle East and Asia have grown significantly over the last five years.

Finally, London is an internationally attractive city to live in with it having the second largest foreign-born population behind New York City in terms of absolute numbers, and in line with other global cities such as Hong Kong, Sydney, and Singapore in terms of the share of foreign-born in its population. While, between 1981 and 2011, the resident foreign-born population increased by almost 150 per cent (from 1.2 million to 3.0 million). Changes in the stock of foreign-born population in London can be seen as having directly contributed to a significant proportion of the change in London's population between these two points in time. With nearly half of all migrants living in London in 2011 having arrived since 2000, while only one in five immigrant Londoners had been resident in the UK for more than thirty years. In contrast however, of those born in Ireland or in countries within the Caribbean more than half had arrived before 1981, whereas 87 per cent of those from Poland had arrived since 2001. While analysis shows that these foreign born (or passport holders) are important to a number of sectors of London's economy. With, for instance, those accounting for a significant proportion of workers in the accommodation and food sector, construction, and the administrative and support service sectors.

London is thus a prosperous, dynamic and diverse world city with a global appeal. However, it also faces challenges in order to hold on to its preeminent position into the 2020s.

APPENDIX A: COMPARISONS BETWEEN LONDON AND NEW YORK

Introduction

This appendix provides a range of comparable statistics for London and New York based on a range of topic areas such as the economy and labour markets, but also provides details of each city's relative global performance against city rankings.

A particular challenge to be noted is the consistency of geographic definitions used, where possible the focus of the statistics is on New York City itself (comprising the boroughs of the Bronx, Brooklyn, Manhattan, Queens and Staten Island), however where data are not available, the New York City Metropolitan Area (which includes New York, Northern New Jersey and Long Island) has been used. For London, the standard NUTS1 geography level has been used.

Where available, official data from government sources have been used for these analyses, however where data come from private sector or other sources, these are referenced in the notes and sources sections.

Economy

Indicator	London	New York	Notes and sources:
City economic output, 2013	£338 billion	\$1.471 billion (£947.1 billion)	<p>New York refers to the New York Metropolitan Area, which covers New York, New Jersey and Newark. Source for data: Bureau of Economic Analysis</p> <p>Data for London from the Office for National Statistics.</p> <p>Assumes annual average US Dollar/GB Pound exchange rate of \$1 = £0.6397; Source: Bank of England.</p> <p>Note: New York City Gross City Product estimated at \$541 billion in 2005 prices. Source: NYCEDC.</p>
Output per head, 2013	£40,215	\$74,864 (£47,891)	Population of New York Metropolitan Area in 2013 = 19,651,127
Output per worker (2013)	£72,400	£100,500	New York refers to New York Metropolitan Area for output and jobs for 2013. London figures (output and jobs) for 2013. Converted to Sterling.
Nominal output average growth 2002 - 2013	5.3%	3.5%	Calculations of nominal output average growth from GLA Economics.

Population and Labour Market

Indicator	London	New York	Notes and sources:
Total population	8,538,700 (2014)	8,405,837 (2013)	Source: U.S. Census Bureau, Population Division. Data for London from the Office for National Statistics.
Proportion of population under 16 years	20.3%	19.1%	Sources: U.S. Census Bureau, Office for National Statistics; GLA Economics calculations New York data is for the New York Metropolitan Area.
Proportion of population 65 years and over	11.5%	14.4%	Sources: U.S. Census Bureau, Office for National Statistics; GLA Economics calculations New York data is for the New York Metropolitan Area.
Proportion of population 85 years and over	1.6%	2.2%	Sources: U.S. Census Bureau, Office for National Statistics; GLA Economics calculations New York data is for the New York Metropolitan Area.
Total employment	5,645,000 (Q2 2015)	4,186,377 (May 2015)	Sources: New York State Department of Labor; Office for National Statistics
Residence based employment	4,319,000 (July – September 2015)	3,953,700 (May 2015)	Sources: New York State Department of Labor; Office for National Statistics
Unemployment	297,000 (July – September 2015)	269,200 (May 2015)	Sources: New York State Department of Labor; Office for National Statistics
Unemployment rate	6.5% (July – September 2015)	6.4% (May 2015)	Sources: New York State Department of Labor; Office for National Statistics
Average annual wage, all professions, 2013	£40,903	\$80,425 (£51,448)	Sources: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages Annual Survey of Hours and Earnings, Office for National Statistics
Net international migration	79,500 (year to June 2013)	73,615	Source for London: Long-term International Migration, Office for National Statistics Source for New York: U.S. Census Bureau
Proportion of population aged over 25 with degree level education	53.7%	35.7%	Source for London: Eurostat (aged 25 – 64). Source for New York: U.S. Census Bureau, 2012 American Community Survey

Wider Indicators

Indicator	London	New York	Notes and sources:
Number of universities	47	35	Source for London: Study London Source for New York: ny.com
Number of theatres	45 (West End)	40 (Broadway)	Source for London: Society of London Theatre Source for New York: Broadway League
Gross theatre attendances, 2014	14.7 million	13.1 million	Source for London: Society of London Theatre Source for New York: Broadway League
Gross theatre revenues, 2014	£623.6million	\$1.36 billion (£826.6 million)	Source for London: Society of London Theatre Source for New York: Broadway League
Number of galleries	857	1,500	Source for London: Cultural Tourism Vision, GLA Source for New York: "Understanding New York City Art Galleries"; http://garybolyer.com
Total international tourists, 2014	17,400,000	11,900,000	Source for London: International Passenger Survey, ONS Source for New York: NYC & Company
Total international tourist spend, 2014	£11,800,000	\$16,900,000 (£10,264,000)	Source for London: International Passenger Survey, ONS Source for New York: MasterCard Global Destination Cities Index
Expected international tourists, 2015	18,800,000	12,300,000	Source: MasterCard Global Destination Cities Index
Expected international tourist spend, 2015	£13,800,000	\$17,400,000 (£10,568,000)	Source: MasterCard Global Destination Cities Index
Domestic tourists, 2013	12,310,000	42,900,000	Source for London: Great Britain Tourism Survey, Visit England Source for New York: NYC & Company
Regional air traffic, 2014	135,098,674	117,014,391	Source for London: Civil Aviation Authority, GLA Economics calculations Source for New York: The Port Authority of New York & New Jersey
Number of exhibition venues with space greater than 100,000 square metres	1	0	Source: UFI
Number of international association meetings, 2013	166	36	Source: ICCA
International students	100,400	46,870	Source for London: London Higher (2013/14) Source for New York: NYCEDC (2012/13)
Total passengers on public transport	283.7 million (Period 2, 2015/16)	231.1 million (April 2015)	Source for London: Transport for London Source for New York: Metropolitan Transit Authority

City Rankings

Indicator	London	New York	Notes and sources:
Global Financial Centres Index	1 st	2 nd	Source: Z/Yen Group and Qatar Financial Centre Authority. GFCI 18 (September 2015) Scores: New York = 796; London = 788

PWC Cities of Opportunity (Overall)	1st	2nd	Source: PWC, 6th edition
component elements:			
Intellectual capital and innovation	2 nd	6 th	
Technology readiness	1 st	5 th	
City gateway	1 st	9 th	
Transportation and infrastructure	6 th	16 th	
Health, safety and security	6 th	9 th	
Sustainability and the natural environment	14 th	11 th	
Demographics and liveability	2 nd	10 th	
Economic clout	1 st	3 rd	
Ease of doing business	5 th	3 rd	
Cost	15 th	9 th	

Anholt-GfK City Brands Index 2013	1 st	4 th	
Ranking of international association meetings, 2014	6 th	64 th	Source: ICCA
Ranking of largest airport by passenger numbers, 2014	3 rd	19 th	Source: Airports Council International

Employment by Sector

The following tables give an indication of the industrial make-up of London and New York. While there is generally consistency between industrial classification, some categories are different between the data from the New York State Department of Labor, and that from the Office for National Statistics; therefore the following tables should not be considered as directly comparable.

New York

Broad industry areas	Employment (data for May 2015)	Annual change in employment	Proportion of total employment
Total finance, insurance and real estate	455,853	6,295	10.9%
Services	2,348,251	71,610	56.1%
Trade (wholesale and retail)	503,099	12,241	12.0%
Manufacturing	73,759	-2,497	1.8%
Transportation and utilities	126,353	1,634	3.0%
Construction	131,923	4,946	3.2%
Government	547,129	3,368	13.1%
Total employment (private sector and government)	4,186,377	97,596	:

Employment in selected sub-sectors

Industry sub-sectors	Employment (data for May 2015)	Annual change in employment
Finance and insurance	455,853	6,295
Securities	171,567	3,818
Banking	95,042	1,603
Real estate	123,033	-1,286
Information	186,778	3,605
Professional, scientific & technical services	392,333	14,824
Administrative services	225,493	5,249
Educational	203,863	3,387
Health & social assistance	664,378	23,291
Arts & Entertainment	88,076	6,984
Accommodation & Food	329,792	5,186
Retail	360,140	13,042
Wholesale	142,959	-800

Source: New York State Department of Labor; seasonal adjustments made by New York City Office of Management and Budget

London

Industry sector	Workforce jobs (Q2 2015)	Annual change in workforce jobs	Proportion of total employment
Agriculture	1,000	-2,000	0.0%
Mining and quarrying	5,000	0	0.1%
Manufacturing	132,000	-11,000	2.3%
Electricity and gas	9,000	1,000	0.2%
Water supply and waste	18,000	-2,000	0.3%
Construction	301,000	20,000	5.3%
Wholesale and retail trade	681,000	24,000	12.1%
Transportation and storage	306,000	17,000	5.4%
Accommodation and food services	382,000	-15,000	6.8%
Information and communication	424,000	-4,000	7.5%
Finance and insurance	377,000	19,000	6.7%
Real estate	117,000	9,000	2.1%
Professional, scientific and technical activities	800,000	20,000	14.2%
Administrative and support services	579,000	17,000	10.3%
Public administration and defence	222,000	-5,000	3.9%
Education	429,000	9,000	7.6%
Human health and social work	517,000	-28,000	9.2%
Arts, entertainment and recreation	188,000	10,000	3.3%
Other service activities	144,000	3,000	2.6%
TOTAL	5,645,000	66,000	:

Source: Workforce Jobs, Office for National Statistics

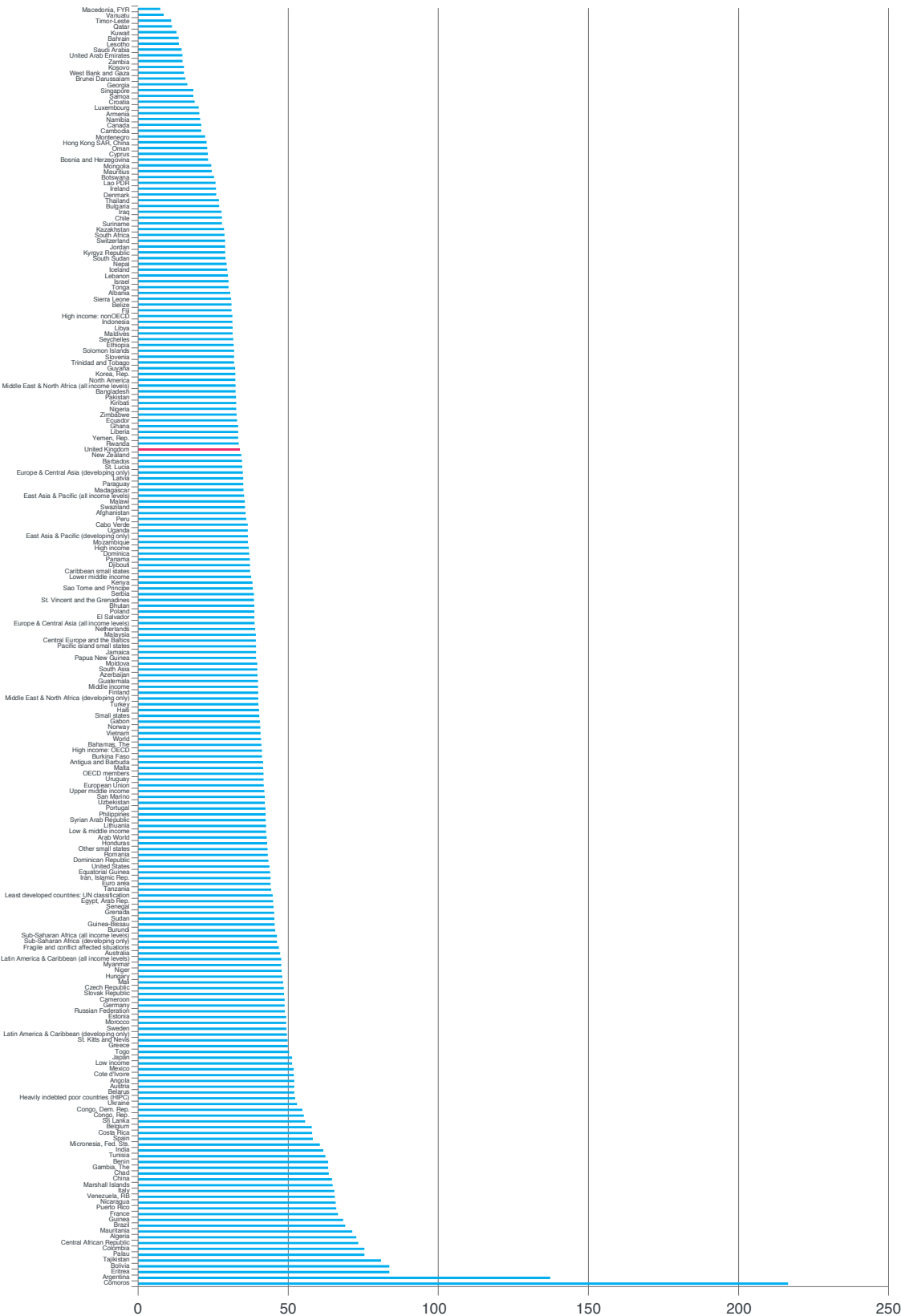
APPENDIX B

Figure B1: Number of higher education degrees per 100 000 population in selected world cities (2014 WCCD data submission)



Source: World Council on City Data

Figure B2: Total tax rate (% of commercial profits)²⁶²



Source: World Bank²⁶³

²⁶² Not all country names are shown in the diagram.

²⁶³ The World Bank notes: “total tax rate measures the amount of taxes and mandatory contributions payable by businesses after accounting for allowable deductions and exemptions as a share of commercial profits. Taxes withheld (such as personal income tax) or collected and remitted to tax authorities (such as value added taxes, sales taxes or goods and service taxes) are excluded”.

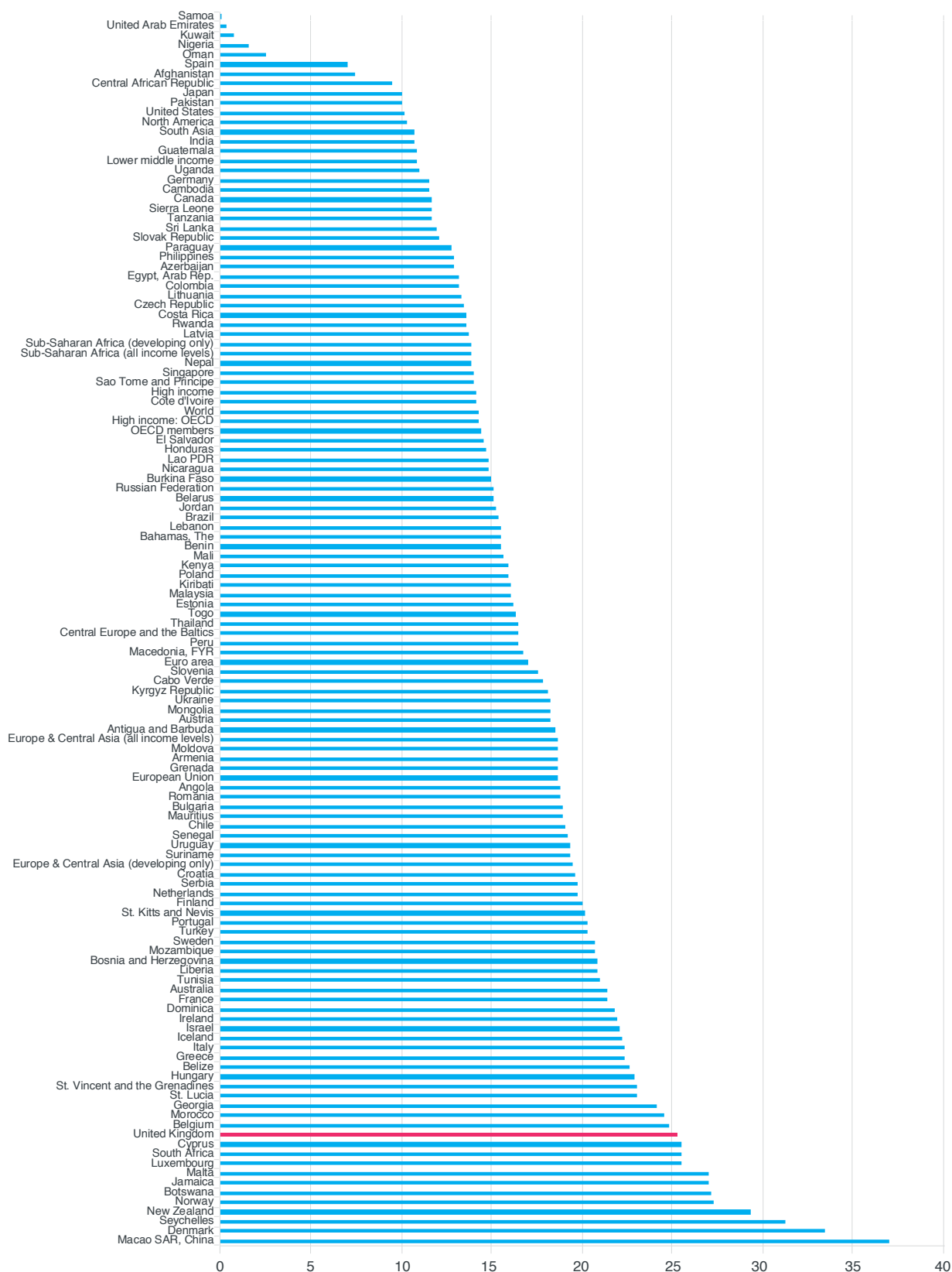
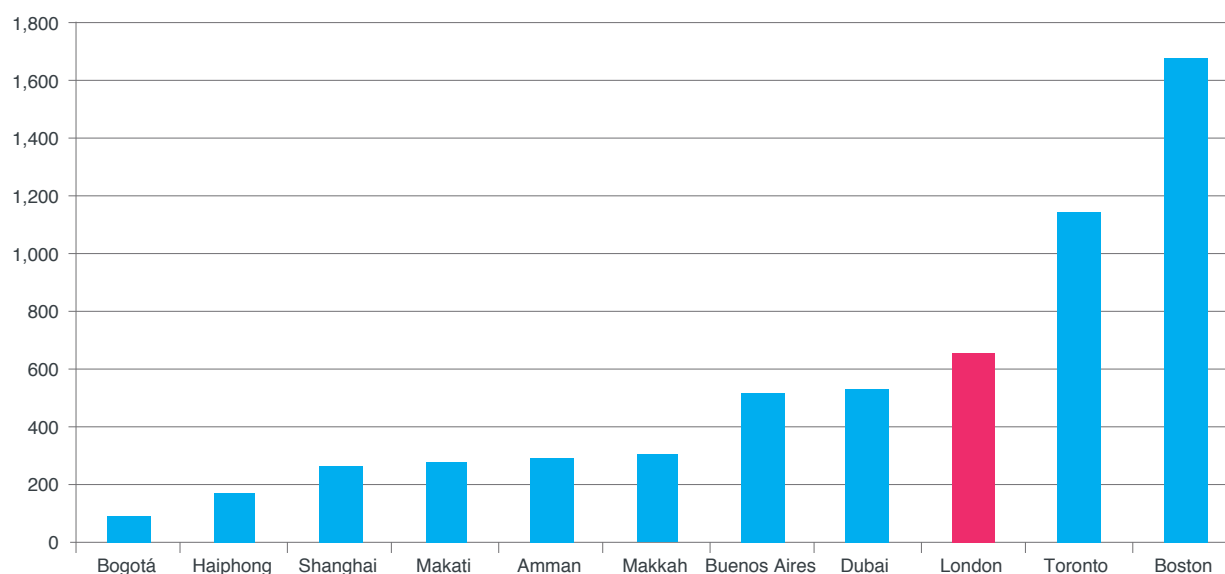
Figure B3: Central government tax revenue (% of GDP), 2012²⁶⁴Source: World Bank²⁶⁵²⁶⁴ Not all country names are shown in the diagram.²⁶⁵ The World Bank notes: "tax revenue refers to compulsory transfers to the central government for public purposes. Certain compulsory transfers such as fines, penalties, and most social security contributions are excluded. Refunds and corrections of erroneously collected tax revenue are treated as negative revenue".

Figure B4: Number of in-patient hospital beds and physicians per 100 000 population in selected world cities (2014 WCCD data submission)



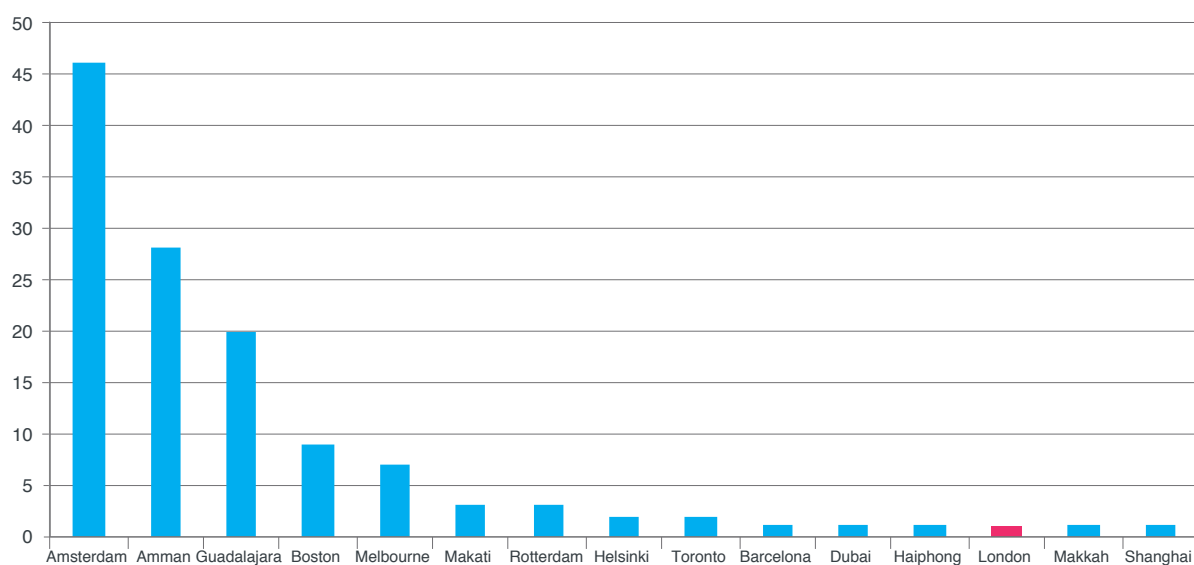
Source: World Council on City Data: WCCD Open City Data Portal

Figure B5: Number of nursing and midwifery personnel per 100 000 population in selected world cities (2014 WCCD data submission)



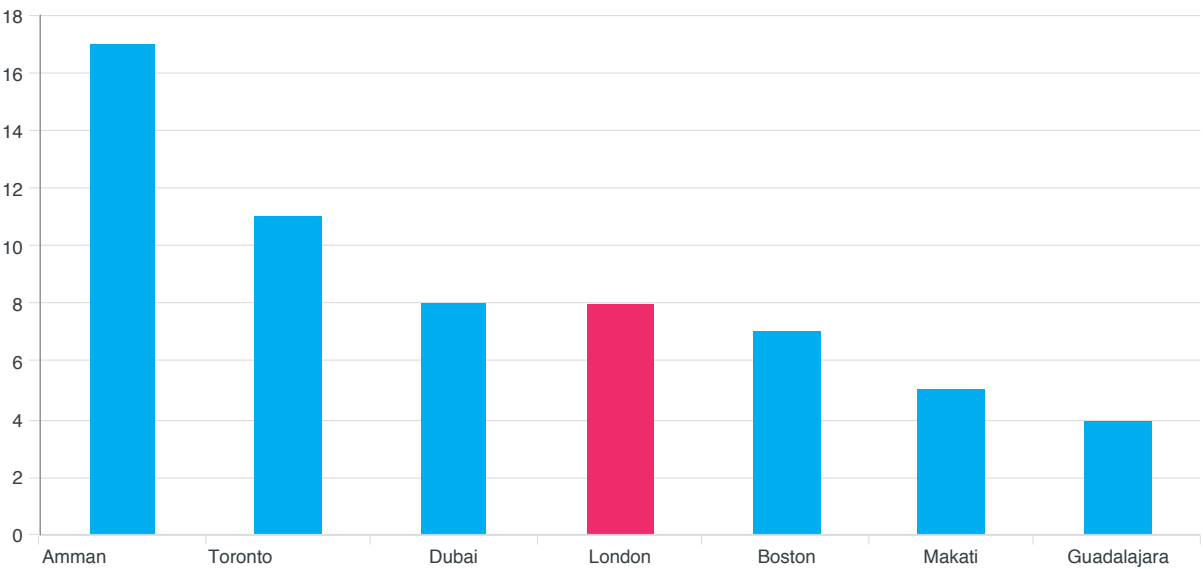
Source: World Council on City Data: WCCD Open City Data Portal

Figure B6: Number of homicides per 100 000 population in selected world cities (2014 WCCD data submission)



Source: World Council on City Data: WCCD Open City Data Portal

Figure B7: Response time for police department from initial call in selected world cities (2014 WCCD data submission)



Source: World Council on City Data: WCCD Open City Data Portal

Table B1: Housing prices in selected world cities²⁶⁶ (US\$²⁶⁷)²⁶⁸

	Furnished 2-room apartment	Unfurnished 3-room apartment	Normal local rent
Amsterdam	1,140	1,620	1,220
Athens	740	850	770
Auckland	1,060	1,390	1,250
Bangkok	820	1,040	500
Barcelona	780	820	740
Beijing	1,150	1,630	1,390
Berlin	850	1,140	690
Bogotá	840	1,210	380
Bratislava	670	720	580
Brussels	1,300	1,490	1,340
Bucharest	420	610	370
Budapest	620	760	640
Buenos Aires	810	1,040	710
Cairo	640	780	500
Chicago	2,520	2,960	2,210
Copenhagen	1,420	2,020	1,650
Doha	2,230	2,500	2,050
Dubai	2,320	3,240	1,380
Dublin	1,650	2,360	1,760
Frankfurt	990	1,360	1,220
Geneva	2,810	2,700	1,610
Helsinki	1,460	1,600	1,440
Hong Kong	4,410	4,220	2,590
Istanbul	890	1,080	970
Jakarta	530	750	260
Johannesburg	1,080	1,500	690
Kiev	400	540	390
Kuala Lumpur	570	630	560
Lima	760	890	800
Lisbon	710	1,020	760
Ljubljana	760	1,080	540
London	2,840	3,350	2,360
Los Angeles	1,670	2,210	1,990
Luxembourg	1,940	2,430	2,130

²⁶⁶ UBS observes that the methodology was “to estimate the worldwide costs of housing, we considered the prices for three different types of apartments. For two of these types, we standardized requirements to Western preferences, with a furnished two-room apartment and an unfurnished three-room apartment. We only looked at newly built apartments which with a bathroom and a kitchen. Prices included utilities (energy and water taxes), but not the use of a garage. To capture local standards, our survey asked for the price of an apartment of typical size, location, and amenities for the respective city. All three housing options were weighted equally.

²⁶⁷ Weighted on a selected basket of goods.

²⁶⁸ This survey was published in 2015.

Table B1 (continued):

	Furnished 2-room apartment	Unfurnished 3-room apartment	Normal local rent
Lyon	640	820	670
Madrid	940	1,340	900
Manama (Bahrain)	1,120	1,470	890
Manila	890	900	190
Mexico City	990	1,410	770
Miami	1,840	2,180	1,970
Milan	1,090	1,490	1,340
Montreal	640	670	590
Moscow	1,080	1,540	1,020
Mumbai (Bombay)	770	970	550
Munich	1,210	1,580	1,370
Nairobi	700	790	480
New Delhi	570	720	640
New York	4,620	4,320	3,890
Nicosia	690	950	690
Oslo	1,940	2,150	1,940
Paris	1,670	2,090	1,610
Prague	510	630	550
Riga	680	910	360
Rio de Janeiro	1,380	1,540	590
Rome	1,220	1,600	1,280
Santiago de Chile	990	1,090	710
São Paulo	930	1,330	910
Seoul	970	1,270	1,140
Shanghai	1,120	1,330	1,090
Sofia	270	350	310
Stockholm	1,240	1,350	880
Sydney	2,050	2,940	1,780
Taipei	2,030	2,740	1,840
Tallinn	670	920	690
Tel Aviv	1,520	1,790	1,160
Tokyo	1,370	1,920	1,730
Toronto	1,110	1,250	1,120
Vienna	1,010	1,120	800
Vilnius	590	820	550
Warsaw	590	840	630
Zurich	2,500	2,390	1,770

Source: UBS²⁶⁹²⁶⁹ UBS, September 2015, 'Prices and earnings – Edition 2015: Do I earn enough for the life I want?'.

Table B2: Public transport costs in selected world cities²⁷⁰ (US\$²⁷¹)²⁷²

	Bus, Tram or Metro	Taxi	Train
Amsterdam	2.71	16.22	27.95
Athens	1.37	5.01	15.14
Auckland	3.16	19.72	40.59
Bangkok	0.74	1.85	3.26
Barcelona	2.32	10.25	25.37
Beijing	0.48	4.42	15.59
Berlin	2.89	14.78	55.14
Bogotá	0.72	1.71	n.a.
Bratislava	0.9	6.31	8.96
Brussels	2.23	12.72	22.81
Bucharest	0.46	3.31	14.26
Budapest	1.26	7.28	15.15
Buenos Aires	0.51	4.75	n.a.
Cairo	0.22	2.4	4.59
Chicago	1.92	12.75	37
Copenhagen	4.63	15.45	49.03
Doha	0.92	3.66	n.a.
Dubai	1.09	6.26	n.a.
Dublin	3.15	11.35	30.5
Frankfurt	2.97	14.97	59.47
Geneva	3.12	20.58	77.55
Helsinki	2.88	15.24	33.91
Hong Kong	1.28	3.65	26.23
Istanbul	0.74	5.66	14.08
Jakarta	0.28	2.66	8.49
Johannesburg	0.79	6.34	16.67
Kiev	0.16	1.59	3.28
Kuala Lumpur	0.37	2.79	8.68
Lima	0.74	6.42	n.a.
Lisbon	1.82	8.11	23.25
Ljubljana	1.53	5.51	14.03
London	4.04	10.09	74.02
Los Angeles	1.5	15.65	36.67
Luxembourg	2.16	22.34	31.56
Lyon	1.95	12.04	32.54
Madrid	1.98	11.35	29.08

²⁷⁰ UBS observes that “prices of public transport are based on the price of a single ticket on a bus, tram, or subway, for a journey of approximately 10 km or at least 10 stops. Prices for a taxi include a five-kilometer ride during the day within city limits, including a service tip. Prices for a train ticket represent a 2nd class single ticket for a journey of 200 km.”

²⁷¹ Weighted on a selected basket of goods.

²⁷² This survey was published in 2015.

Table B2 (continued):

	Bus, Tram or Metro	Taxi	Train
Manama	0.8	7.96	n.a.
Manila	0.45	3	1.01
Mexico City	0.33	3.66	n.a.
Miami	2.25	14.43	33.45
Milan	1.62	17.3	28.58
Montreal	2.63	17.57	52.08
Moscow	0.88	7.88	24.6
Mumbai	0.74	1.81	1.75
Munich	2.92	14.02	59.83
Nairobi	0.64	7.14	10.09
New Delhi	0.37	1.54	10.08
New York City	2.75	11.67	52.5
Nicosia	1.62	8.38	n.a.
Oslo	3.8	32.1	61.77
Paris	1.95	12.43	43.84
Prague	1.18	6	8.44
Riga	1.3	6.74	7.78
Rio de Janeiro	1.19	5.07	n.a.
Rome	1.62	14.24	27.03
Santiago de Chile	1.08	7.08	9.11
Sao Paulo	1.12	6.48	n.a.
Seoul	1.06	4.45	23.09
Shanghai	0.38	3.13	12.01
Sofia	0.55	3.04	7.55
Stockholm	4.17	18.56	41.79
Sydney	2.58	11.52	6.8
Taipei	0.54	4.63	11.32
Tallinn	1.73	6.54	11.79
Tel Aviv	1.75	10.98	18.75
Tokyo	1.47	7.31	51.77
Toronto	2.43	15.88	38.46
Vienna	2.34	14.42	43.36
Vilnius	0.9	4.52	10.46
Warsaw	0.91	5.64	13.7
Zurich	3.75	27.59	73.39

Source: UBS²⁷³²⁷³ UBS, September 2015, 'Prices and earnings – Edition 2015: Do I earn enough for the life I want?'.

Table B3: Hospital beds per 100,000 of population in selected European countries (2004 to 2011, ranked on 2011 value)

	2004	2005	2006	2007	2008	2009	2010	2011
Germany	858	847	830	824	821	824	825	822
Austria	773	769	766	775	768	766	763	765
Lithuania	744	709	689	688	684	680	695	744
Hungary	783	785	792	719	711	714	718	719
Czech Republic	764	755	742	731	719	711	703	684
Poland	667	652	647	642	662	665	656	655
Bulgaria	613	641	620	636	649	660	655	645
France	739	722	711	706	690	666	643	637
Belgium	747	742	670	663	657	651	643	635
Romania	674	677	674	654	657	662	628	612
Slovakia	690	677	671	675	656	651	644	606
Latvia	774	768	761	757	746	640	551	588
Croatia	553	545	546	549	547	537	562	579
Finland	710	705	699	673	657	625	585	552
Estonia	570	542	556	548	562	535	524	531
Switzerland	567	554	539	536	521	510	496	487
Slovenia	480	483	477	468	474	460	457	462
The Former Yugoslav Republic of Macedonia	477	470	463	456	455	448	459	451
Malta	746	745	755	780	734	481	451	446
Cyprus	416	376	371	372	375	376	357	351
Italy	399	400	394	384	373	363	357	342
Portugal	358	354	346	341	337	335	336	338
Iceland	:	:	:	416	395	374	362	332
Norway	419	404	401	380	352	335	330	332
Spain	342	336	331	327	323	319	315	309
Ireland	564	546	527	515	492	327	311	295
United Kingdom	386	373	356	341	336	329	295	290
Sweden	301	293	289	286	281	276	273	271
Turkey	212	215	223	231	235	240	252	253
Liechtenstein	273	270	243	241	240	196	217	215
France (metropolitan)	753	737	720	710	702	:	:	:
Luxembourg	639	579	565	567	557	547	537	:
Greece	469	473	482	481	477	485	:	:
Netherlands	447	445	478	474	470	466	:	:
Denmark	397	386	379	369	357	349	350	:

Source: Eurostat

Table B4: Curative care beds per 100,000 of population in selected European countries (2004 to 2011, ranked on 2011 value)

	2004	2005	2006	2007	2008	2009	2010	2011
Austria	584	577	571	570	563	557	549	542
Lithuania	555	528	510	509	505	502	513	538
Germany	568	559	543	538	535	535	533	531
Bulgaria	470	491	475	489	499	508	508	499
Czech Republic	540	534	525	518	508	499	488	470
Slovakia	484	501	488	492	487	480	475	449
Poland	479	469	465	462	441	439	435	429
Hungary	551	551	553	416	413	413	414	415
Romania	443	456	456	448	450	462	433	413
Belgium	447	440	434	428	424	418	411	405
Slovenia	385	388	384	378	383	371	368	369
Latvia	550	533	529	525	517	431	347	361
Croatia	342	338	339	340	341	336	352	350
Estonia	421	379	389	376	381	357	342	349
France	374	369	362	358	352	349	346	343
Netherlands	291	286	318	317	310	306	326	334
Cyprus	385	345	344	346	349	351	334	330
The Former Yugoslav Republic of Macedonia	317	312	319	307	305	302	315	307
Switzerland	377	365	353	346	334	328	313	303
Finland	338	334	327	320	311	304	302	296
Portugal	292	289	282	279	277	276	277	281
Italy	333	331	323	313	302	292	287	275
Malta	299	280	284	269	277	271	270	249
Turkey	204	207	214	224	227	231	243	245
Iceland	:	:	:	306	280	265	273	244
Norway	291	291	285	274	249	238	237	240
Spain	261	258	253	253	249	247	245	239
United Kingdom	308	299	287	275	272	268	241	237
Ireland	278	276	270	265	256	239	226	217
Sweden	223	218	212	211	207	204	202	201
Liechtenstein	160	161	163	159	155	157	178	173
France (metropolitan)	376	369	364	358	355	:	:	:
Luxembourg	502	454	447	440	432	424	417	:
Greece	379	386	394	395	395	405	:	:
Denmark	326	315	309	299	292	286	287	:

Source: Eurostat

Table B5: Venues with a minimum of 100,000 square metres of indoor exhibition space in 2011

					Indoor exhibition space (sqm)
1	Messe Hannover	Hanover	Germany		466 100
2	Messe Frankfurt	Frankfurt/Main	Germany		345 697
3	Fiera Milano (Rho Pero)	Milano	Italy		345 000
4	Chinese Export & Import Commodities Fair Ground - Pazhou Complex	Guangzhou	China		338 000
5	Koelnmesse	Cologne	Germany		284 000
6	Messe Duesseldorf	Duesseldorf	Germany		262 704
7	Paris Nord Villepinte	Paris	France		241 582
8	McCormick Place	Chicago	USA		241 524
9	Feria Valencia	Valencia	Spain		230 602
10	Porte de Versailles	Paris	France		228 211
11	Crocus International	Moscow	Russia		226 399
12	Fira de Barcelona: Gran Via venue	Barcelona	Spain		205 000
13ex	BolognaFiere	Bologna	Italy		200 000
13ex	Feria de Madrid/IFEMA	Madrid	Spain		200 000
13ex	Shanghai New International Expo Centre (SNIEC)	Shanghai	China		200 000
16	The NEC (Birmingham)	Birmingham	United Kingdom		198 983
17	Orange County Convention Center	Orlando	USA		195 077
18	Wuhan International Expo Center	Wuhan	China		190 000
19	Las Vegas Convention Center	Las Vegas	USA		184 372
20	Neue Messe Muenchen	Muenchen	Germany		180 000
21	Chinese Export & Import Commodities Fair Ground - Liuhua Complex	Guangzhou	China		170 000
22	Investimenti S.p.A. (già Fiera di Roma S.p.A.)	Roma	Italy		167 000
23	MCH Messe Schweiz (Basel) AG	Basel	Switzerland		162 000
24ex	Messe Berlin	Berlin	Germany		160 000
24ex	Nuernberg Messe	Nuernberg	Germany		160 000
26	IMPACT	Bangkok	Thailand		137 000
27	Verona Fiere	Verona	Italy		135 904
28	Georgia World Congress Center	Atlanta	USA		130 052
29	E.A. Fiera del Levante	Bari	Italy		128 000
30	Veletrhy	Brno	Czech Republic		120 300
31ex	Feria de Zaragoza	Zaragoza	Spain		120 000
31ex	Yiwu International Expo Centre	Yiwu	China		120 000
33ex	Brussels EXPO	Brussels	Belgium		115 000
33ex	Fira de Barcelona: Montjuic venue	Barcelona	Spain		115 000
35	EUREXPO	Lyon	France		113 719
36	ExCeL London	London	United Kingdom		110 411
37ex	MCH Messecenter Herning	Herning	Denmark		110 000
37ex	Messe Essen	Essen	Germany		110 000
37ex	Fiera di Parma SpA	Parma	Italy		110 000
37ex	Chengdu New International Convention and Exhibition Center (Century City)	Chengdu	China		110 000
41	Rimini Fiera	Rimini	Italy		109 000
42	Bilbao Exhibition Centre	Bilbao	Spain		108 000
43ex	Messe Stuttgart	Stuttgart	Germany		105 200
43ex	Shenyang Exhibition Center	Shenyang	China		105 200
45	Shenzhen Convention & Exhibition Center	Shenzhen	China		105 000
46	Korea International Exhibition Center (KINTEX)	Seoul	South Korea		104 000
47	Poznan International Fair	Poznan	Poland		102 791
48	Palexpo Geneva	Geneva	Switzerland		102 470
49ex	Kentucky Exposition Center	Louisville	USA		102 183
49ex	New Orleans Ernest N. Morial Convention Center	New Orleans	USA		102 183
51	Jaarbeurs Utrecht	Utrecht	The Netherlands		102 000
52	Leipziger Messe	Leipzig	Germany		101 200
53	Tehran Permanent Fair Ground / Iran International Exhibitions Co.	Tehran	Iran		101 185
54ex	New China International Exhibition Center (NCIEC)	Beijing	China		100 000
54ex	Singapore Expo	Singapore	Singapore		100 000

Source: UFI

APPENDIX C

THE COMPETITIVE

POSITIONING

OF LONDON'S

INFRASTRUCTURE

3.1. Main Findings

Whilst London leads across many global measures, it is not competitively ranked in terms of its infrastructure, and this has the potential to result in London falling behind other global cities in terms of its capacity to attract investment, skilled labour and provide high value add jobs.

Like all cities, London's competitiveness is inextricably linked to the quality of its infrastructure. Infrastructure allows for London to function effectively – it facilitates the movement of goods and people, it allows for productive activity to occur and it improves people's quality of life – all central components of competitiveness, however failure to invest, and the running down of infrastructure will compromise these aspects.

Work developing the London Infrastructure Plan 2050 (LIP 2050) highlighted the scale of the challenge facing London as the city's population grows. London's population has been growing continuously for the last thirty years, with a noticeable acceleration in the rate of growth over the past decade resulting in London's population eclipsing its 1939 peak of 8.6 million in February 2015. Current projections suggest that by 2030 London's population is likely to reach 10 million²⁷⁴. Such growth places considerable pressure on infrastructure – particularly housing and the transport network, but also energy, water and communications/digital infrastructure as well.

The LIP 2050 found that in view of environmental and fiscal constraints, London will need to operate more efficiently and sustainably if it is to meet its future infrastructure challenges. In tandem with new infrastructure investment, London will need to develop in a way which encourages smarter land use – supported by improved planning and coordination of infrastructure (including regulatory reform) and also by reducing the demands Londoners place on infrastructure systems and the environment – through application of new technologies and encouraging more sustainable levels of resource use.

²⁷⁴ GLA Economics, 2014, Population and Employment Projections to support the London Infrastructure Plan 2050

In the case of London, the cost of providing new infrastructure is significant. In terms of affordable housing and public transport, a funding gap of £135 billion has been identified based on current levels of expenditure and available funding sources, and this will need to be met through increasing London's capacity to pay for the infrastructure it needs²⁷⁵. For example, more fiscal independence is integral in order to secure the transport investment London needs. Other options being considered include additional revenue sources such as special taxes hypothecated to infrastructure projects. More information on London's infrastructure funding options is available on our website at www.london.gov.uk/infrastructure

3.2. The link between infrastructure and competitiveness

Infrastructure is one of the key determinants of city competitiveness; due to the influence it has over the capacity of a city to be productive, as well as be environmentally and socially sustainable. Evidence suggests that in recent years, cities that have increased in global rankings have all benefited from a sustained commitment to infrastructure investment, either by government alone or in partnership with the private sector. The rise of cities in Asia, the Middle East and Eastern Europe over the past two decades is a testament to the power of infrastructure in driving economic development, foreign investment and rising living standards – all key contributors to competitiveness.

Failure to invest has potential to result in a range of negative economic, environmental and social externalities, including congestion, unsustainable rates of resource consumption, as well as rising house prices and poor access to jobs. These issues are particularly important in the context of globalisation, whereby business and skilled workers are highly mobile, and as such able to relocate if they perceive that a city's disadvantages outweigh its benefits. A recent survey found that 99% of firms say the quality and/or cost of infrastructure has a significant impact on their investment decisions, and as such it is important that infrastructure remains high on the political agenda²⁷⁶.

It is well understood that London's competitiveness is closely linked to infrastructure. For example, London's comprehensive transport network underpins a globally competitive clustering of knowledge intensive jobs throughout Central London – enabling high levels of productivity, which result from unparalleled density of employment, by connecting a skilled workforce to job opportunities. London's five key airports provide international connections that support trade and foreign investment. On another scale, London's parks and social infrastructure contribute to high quality of life outcomes, whilst excellent schools and universities mean that London has the highest proportion of graduates of any city in the world. These elements functioning well collectively contribute to London's strong competitive positioning globally. However they are increasingly being compromised in the face of a lack of forward new investment.

²⁷⁵ Arup, 2014, 'The Cost of London's long term infrastructure' Final Report.

²⁷⁶ CBI/URS Taking the long view: a new approach to infrastructure: CBI-URS Infrastructure Survey 2014

3.3. What happens if London fails to invest in new infrastructure?

It is hard to predict exactly what would happen if London failed to invest in new infrastructure, and it is difficult to determine the exact ‘tipping point’ when London’s competitiveness would start becoming undermined. What we do know is broadly it can be assumed that London will become less attractive to people as a place to live and work as costs will likely increase whilst businesses may decide that the cost of doing business is too high and leave for other more productive locations, where congestion may be lower, and wages or land cheaper.

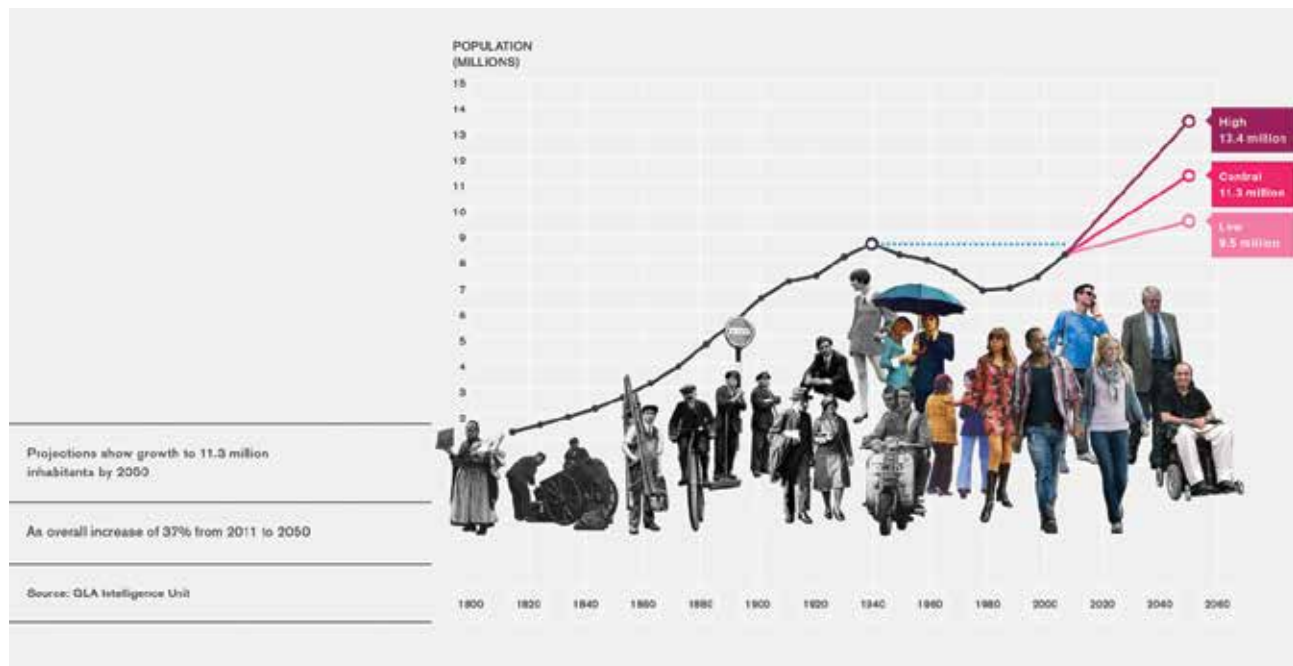
The loss of businesses will have a significant impact on London’s economy. For example, much of London’s competitive advantage is derived from a strong clustering of particular industry sectors (digital, financial, professional services, etc.), and the loss of these to elsewhere will have numerous follow-on effects not just for London but also the rest of the UK, particularly in terms of lost taxation and reduced job opportunities. The global history of cities is one of continual rise and fall. Maintaining London’s competitive position requires, effective public policy responses, and investment.

3.4. London’s key infrastructure challenges

Over the last decade the rate of population growth in London has been twice as high as that of the rest of the UK. Even if efforts succeed to rebalance the economy, London’s likely growth will dwarf that of other cities throughout the country such as Birmingham, Manchester and Glasgow. In February 2015 London eclipsed its 1939 peak population of 8.6 million people. Figure 1 shows that London’s population is now projected to rise to 10 million by 2030 and perhaps 11.3 million by 2050²⁷⁷.

²⁷⁷ Using GLA projections as developed for the London Infrastructure Plan 2050.

Figure 1: London's population growth and future projections 1800 - 2050



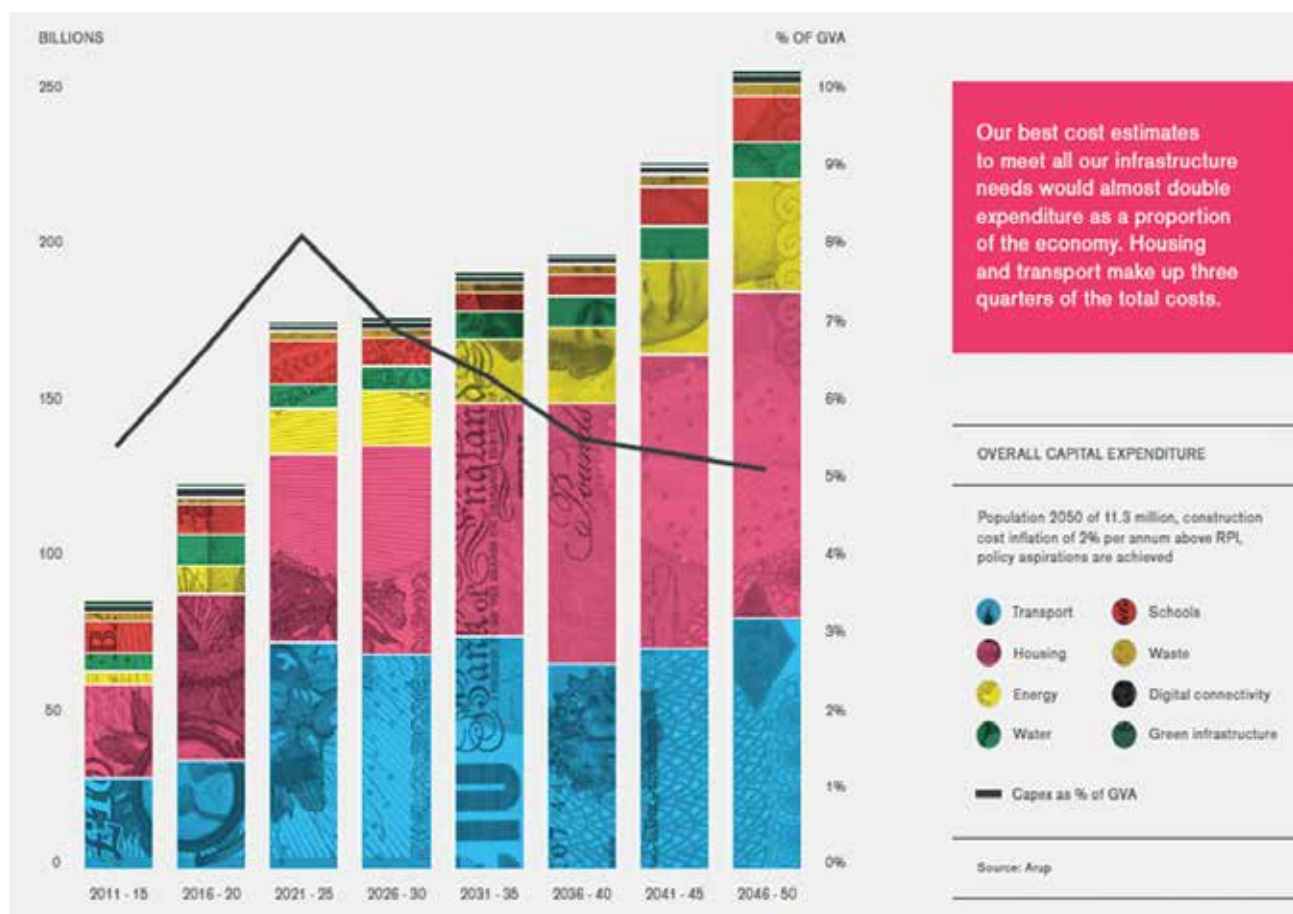
Source: London Infrastructure Plan 2050

Population growth should be viewed positively for it is a key barometer of competitive advantage and global perceptions of London's status as a place to live and work. However, this growth will place considerable pressure on infrastructure – particularly energy, water and transport networks, and also impact housing supply. Recently, concerns have been raised about London being a 'victim of its own success'. The key will be to ensure that targeted investments are made to support growth and mitigate its ill effects.

The LIP 2050 was commissioned by the Mayor to ensure that London invests in the infrastructure it needs to remain one of the best cities in the world in which to live, work and do business. It was also a response to the Mayor's call to ensure that all Londoners have a share in London's success and can equally access opportunities. It sets out a series of expectations regarding the delivery of infrastructure in the 21st century – digitally connected, green, integrated, and innovative and understood as a system of systems. The analysis found that investment in the context of growth should be targeted at improving productivity, increasing resilience and promoting sustainability – all essential components of competitiveness.

A comprehensive cost model developed by Arup, which will continue to evolve to reflect changing priorities, underpinned the LIP 2050. The model found that London in order to remain competitive will need to meet a funding gap of £135 billion in affordable housing and transport for future infrastructure in order to meet its growth requirements. Further, meeting London's infrastructure requirements will mean that London needs to increase its level of expenditure relative to GVA output by some 1.5%, with costs doubling as a proportion of the economy over the next decade, but declining as a percentage of the economy after 2030 (See Figure 2)²⁷⁸.

Figure 2: Costing London's infrastructure requirements



Source: Arup

²⁷⁸ Arup, 2014 The Cost of London's Long Term Infrastructure – Final Report

Infrastructure delivery in London is compromised by poor governance arrangements. Whilst the Mayor sets a strategic land use vision for London in the form of the London Plan, he does not have direct responsibility for all the infrastructure types; such as water and energy, digital and certain rail services, these types of infrastructure are integral to the successful realisation of land use outcomes and development for London. Regulators do not require utilities to consider documents such as the London Plan when undertaking business planning and this means that infrastructure is often not adequately invested in ahead of demand, and coordination in terms of planning and delivery is not as frequent as it could be – impacting costs, and disrupting Londoners unnecessarily. Combined this impacts the ability of London's infrastructure to be delivered in an efficient, integrated and coordinated way.

In terms of funding, the Mayor's activities are delivered largely by a grant from Central Government. This grant is not sufficient to pay for larger pieces of infrastructure for which the Mayor is responsible – e.g. major new transport proposed schemes such as Crossrail 2 or the Bakerloo Line Extension, and it means that the Mayor is reliant upon Central Government buy-in and financial support to ensure delivery. This adds an additional political dimension to the delivery of infrastructure and slows down the delivery process. The result of this is that investors in London cannot be certain about larger proposed schemes going ahead, which in turn reduces London's competitiveness as a place to invest relative to other cities where investment in new schemes is more certain due to clearer governance arrangements and funding mechanisms. London First noted that London is much more reliant upon national decision making and national spending transfers than comparable cities: for example 74% of GLA and borough expenditure is funded from intergovernmental transfers, compared to equivalent figures of 31% in New York and 18% in Paris. Without the funding levers to invest appropriately the capacity of the Mayor and boroughs to invest in infrastructure is constrained²⁷⁹.

A good example in this regard is Crossrail. Crossrail is a transformative project which will increase capacity of the Tube network in Central London when it opens in 2018. Though planning and initial scoping for the project commenced in the 1940's, meaning that it has taken many decades to get to the point it is at now. Contrast this to Hong Kong or Singapore where entire metro systems have been built in the same period. A key reason why Crossrail has taken so long to be delivered is the involvement of multiple levels of government in delivering and funding the project, and the political dimension of funding large pieces of infrastructure at the perceived 'expense' of the rest of the UK.

²⁷⁹ London First, 2015, 'An Agenda for Jobs & Growth'

In response to such governance and funding challenges, the Mayor has argued for fiscal devolution to better position London to meet its own infrastructure requirements, and allow for London to be responsive to its own needs. By allowing London to control more of the tax revenue it generates, growth and investment can be better incentivised and local issues impacting competitiveness addressed. Other benefits include enabling new financing and funding mechanisms, and removing a layer of the political process – speeding up infrastructure delivery and approval. The recent announcement by the Chancellor of devolving business rates is an important step forward in this process, however further devolution of the full suite of property taxes in line with the recommendations of the London Finance Commission is supported in order to improve London's competitiveness²⁸⁰.

3.5. Sector-specific infrastructure challenges

A number of sector specific infrastructure challenges are impacting London's productivity and competitiveness, and are actively being addressed as part of our forward work programme. Focus areas include housing, transport, energy, water, digital connectivity and green infrastructure. More information on our collective approach addressing challenges facing these infrastructure sectors can be found by visiting our website at www.london.gov.uk/infrastructure.

²⁸⁰ London Finance Commission, 2013, 'Raising the Capital'

Overview – how does London compare on the key indexes for its infrastructure?

Whilst London regularly tops the ranking of global cities in terms of its competitiveness across a range of measures, the UK and London's infrastructure is generally regarded as 'not best in class' as a number of evidence-based reports testify:

Survey	London / UK Ranking for infrastructure	Key Issues Raised
Arcadis Sustainable Cities Index 2014	2	<p>Congestion, shortage of housing, ageing infrastructure undermine London's competitiveness.</p> <p>"London is starting to become a victim of its own success. For years London has suffered from under investment in its infrastructure and is struggling to meet the demand of the existing population, let alone the impact of growth"</p>
EC Harris Global Infrastructure Investment Index 2014	UK ranking - 13	<p>"Unless concerted steps are taken to provide greater policy certainty, get the right regulatory balance, and speed up the planning process, investors will continue to look at other markets with fewer barriers to entry and the UK will continue to fall down the index ranking in terms of attractiveness."</p> <p>The UK Government's "inability to clarify its aviation strategy is a deterrent to securing the investment to enable the UK to maintain a competitive position in this sector. Neighbours in Europe such as Holland, France and Germany have taken a very assertive approach by expanding airports such as Amsterdam's Schiphol and Paris' Charles De Gaulle.</p>
Hyperoptic Broadband Survey	26/33	<p>London ranks poorly compared to other European cities in terms of broadband speeds, ranked 26/33, with an average download speed of 26.3Mbps, more than 10Mbps slower than the European average of 36.8Mbps. London's ranking is declining year on year (down 4 from year before).</p>
PwC Cities of Opportunity Index 2014	6/30	<p>Whilst London is ranked number one across all measures, in terms of transport and infrastructure London falls behind other cities such as Paris, Buenos Aires, Singapore, Seoul and Tokyo. Key reasons for this are the quality of London's public transport coverage and also cost of infrastructure. It should be noted however that London is ranked equal first though in terms of public transport efficiency, reliability and safety.</p>
World Economic Forum Global Competitiveness Index 2014-15	10 UK Ranking	<p>The report found that in terms of overall infrastructure quality, the UK trails China, Hong Kong, Germany and the United States. An inadequate supply of infrastructure is listed as one of the top issues impacting ease of doing business.</p> <p>One of the UK's strengths is the availability of airline seats each week – this is obviously a reflection of London's role in providing significant aviation capacity, however the quality of this infrastructure is recognised as being poor, with a need to upgrade airports to global standards.</p>

