LONDON | 2036

an agenda for jobs and growth

LONDON FIRST

LONDON ENTERPRISE PANEL

LONDON FIRST

London First is an independent business membership organisation whose mission is to make London the best city in the world in which to do business. Its members include the capital's leading employers in key sectors such as financial and business services, property, transport, ICT, education, creative industries, hospitality and retail. Established in 1991, its work encompasses a wide range of issues under the umbrella of maintaining London's competitiveness in an increasingly challenging environment.

LONDON ENTERPRISE PANEL

The London Enterprise Panel (LEP) is the local enterprise partnership for London. Chaired by the Mayor of London, the LEP is the body through which the Mayoralty works with London's boroughs, business and Transport for London to take a strategic view of the regeneration, employment and skills agenda for London.

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CONTENTS

FOREWORD

In the early part of 2015 London's population will surpass its 1939 peak of around 8.6 million and the city is set to grow yet further, to 10 million by the early 2030s.

This is a testimony to London's success as the city where global business can find talent and where global talent can find opportunity. It has been driven by the ingenuity of Londoners, old or new, rather than by planning or public policy and this must remain the case. Yet as cities grow the infrastructure, architecture and systems that enable them to function smoothly and remain cohesive become ever more important.

At London First – the independent business organisation with the mission to make London the best city it the world in which to do business – we have been looking at the approach other global cities take to managing and supporting growth. A common theme is a city plan to identify the strategic interventions that can deliver the best returns.

We have therefore been delighted to have been given the opportunity to project manage the development of this business-led agenda for London, for the London Enterprise Panel, to identify the actions that could best support the delivery of jobs and growth in London over the next twenty years.

We have spent a year building a robust evidence base, looking at trends, seeking insights from other cities and – critically – having discussions throughout the process with a wide range of stakeholders. We are extremely grateful to McKinsey & Company who have supported us in all of this work.

Two clear thoughts have informed our approach. The first is that London has been well served by previous analysts. Our challenge was not to identify new opportunities or challenges but to distil the issues facing a city economy the size of a country down to a small number of key priorities for action. The second is that the complexity of London means there is no single agency we can call upon to deliver against these priorities; this is a call to action for London as a whole.

The London Enterprise Panel, which brings together London business, government and wider stakeholders, is best placed to lead this delivery. In doing so it will be reliant on a host of organisations, private and public, whom it can convene but cannot command. We look forward to continuing to work with it on this complex but vital task in the move from analysis to action.

John Dickie

Director of Strategy and Policy
London First

London's economic success is something about which the capital and indeed the whole of the country should be proud. Yet while this success may give us cause to celebrate today, I share the view that London's future economic fortunes cannot be taken for granted. London also needs to manage the pressures that come with success – particularly around quality of life and cost of living - that could otherwise threaten London's attractiveness to investors, talented individuals and even to Londoners themselves. And while London's historic success has been largely organic and unplanned, there are specific areas where targeted actions will undoubtedly deliver better outcomes for London, and with it the rest of the UK.

The London Enterprise Panel, as a business-led advisory body to the Mayor of London, welcomes this report. Working with London First and McKinsey & Co, who were appointed after a competitive tender process to provide expert analytical support to the project, our aim was to provide a clear and unapologetic focus on actions that will drive jobs and economic growth (GVA). The resulting agenda identifies the areas where targeted interventions could make the biggest positive difference to London's economy. It also provides an updated evidence base for future statutory strategies beyond the current Mayoral term of office, and seeks to tie together existing efforts and improve focus so as to deliver greater and more rapid progress against a shared set of priorities.

This agenda for jobs and growth gives examples of actions which need to take place under each of these priorities. But the work doesn't stop here. The next steps are to develop a set of specific actions, short- and long-term, to drive change. This will require further issue-specific analyses in consultation with relevant stakeholders - across private and public sectors, at national, London and local level.

The London Enterprise Panel would like to thank everyone who contributed to the development of this work thus far, but in particular the members of the working group and the advisory group who generously gave their time and brought valuable expertise to the project.

Harvey McGrath

Deputy Chair
London Enterprise Panel

EXECUTIVE SUMMARY

An agenda for London's economy

We have identified three core themes for London's economy: to cement its existing leadership position as the global business hub; to fuel more diverse growth through creativity and technology; and to address its weaknesses in inclusion, infra-structure and governance.

This report aims to identify the agenda on which London's stakeholders should focus in order to maximise job creation and economic growth between now and 2036[1]. It has been produced by London First for the London Enterprise Panel with three considerations in mind.

First, its scope is tightly **focused on jobs and economic growth**. This is not a new nor a comprehensive strategy for London, ground that is covered by the current Mayor's ''2020 Vision''[2] and existing statutory strategies.

Second, it describes an **agenda for London as a whole** rather than just for London government; this agenda will be delivered only with support from both public- and private-sector stakeholders from across London and the rest of the UK.

Third, it seeks to **identify the priorities for action**, drawing together common themes from existing work into an up-to-date and integrated agenda where London should focus in order to have maximum impact.

The work has been founded in multiple strands of activity: a review of the changing global context in which London is operating; extensive data analysis looking at London's strengths and weaknesses; a review of London's relationship with the broader UK economy; and wide consultation with around 400 of London's leaders.

We hope this agenda will command broad support and serve London well for the long term, across economic and political cycles.

THE GOAL

This agenda is designed to deliver a London economy with:

- **the fastest income growth among cities of its scale and type**, with growth in GVA per head that is faster over the long term than New York, Paris or Tokyo's, and that delivers more benefit to the wider UK;
- **job growth that translates into opportunity**, with employment rates higher than both the UK average and the equivalent rates in New York and Paris; and
- **diversity and resilience**, with strong performance across more of the economy in order to improve the city's resilience against crises, with no single sector driving more than 40% of GVA or jobs growth[3].

Today, London is not achieving any of these aspirations. Despite long-term economic success, growth in GVA-per-head has stagnated; unemployment remains higher than in the rest of the UK; and the economy has proven highly vulnerable to shocks.

To achieve this goal we have identified three core themes for London's economy: to cement its existing leadership position as the global business hub; to fuel more diverse growth through creativity and technology; and to address its weaknesses in inclusion, infrastructure and governance. Each of these themes is described below, along with the priority areas for action on which we believe London should focus.

A. Cementing existing leadership: The Global Hub

London is already the leading global hub for business, for talent, for financial and business services and for visitors. It attracts more overnight international visitors, more international students, more FDI projects and more large international subsidiaries than any other city in the world[4]. London has the highest percentage of graduates of any major city[5].

These strengths have been underpinned by a distinctive combination of attributes: stable business-friendly regulation; global openness to trade, investment and migration; and a vibrant and liberal culture that attracts people from around the world. Taken together they have laid the foundations for a virtuous circle as London has emerged as the place where global business can find talent, and the place where global talent can find opportunity.

[1] This reflects the timescale of the London Plan, the Mayor's spatial development strategy for London: see Greater London Authority, *Draft further alterations to the London plan*, January 2014

[2] Greater London Authority, 2020 Vision, *The Greatest City on Earth, Ambitions for London*, June 2013

[3] This is less than the contribution of financial services to GVA growth or of business services to jobs growth over the last ten years

[4] *Mastercard GDCI 2014; World Cities Culture Forum; World Cities Culture Report 2014; McKinsey Global Institute, Urban world: The shifting global business landscape,* October 2013

[5] See Figure 89 in main report

The economic impact of this virtuous circle is seen most clearly in the growth of London's financial and business services sectors. Despite being badly hit by the 2008 financial crisis, these two industries have together driven around half of London's output and jobs growth since 2000[6]. Looking ahead, London has potential to drive further growth in GVA and jobs, for example, by capturing global opportunities in emerging markets, capitalising on further integration of the European services market and using future growth in tourism to create large-scale employment growth of a kind that is increasingly rare.

However, London faces challenges if it is to maintain its position as the leading global hub in a rapidly-changing world.

First, London faces growing competition from alternative hubs, such as Singapore, that are geographically, culturally and linguistically closer to large emerging markets. The world's centre of economic gravity is shifting East at a rapid pace and London's relationships with key growth markets are not as strong as those with its historic trading partners. For example, over five times as many Chinese visitors visit Paris as visit London[7].

Second, national public opinion and hence UK government policy could put pressure on some of the critical underpinnings of London's leadership, in particular its openness to immigration and its relationship with the European Union.

Where London should focus

1. **Stay open for business:** strengthen London's voice on national policies that could put London's status as the global hub for business and finance at risk: particularly immigration and the UK's relationship with Europe.
2. **Increase focus on emerging markets:** develop new approaches and radically step up promotion to win emerging market investment, business, visitors, talent and students, starting with Asia.
3. **Improve global access:** accelerate the creation of aviation capacity in the South East and improve the visa system for global visitors.

B. Fuelling more diverse growth: The Creative Engine

Although London's strength in financial and business services is a critical driver of its overall economic strength, building growth across a more diverse profile of successful sectors would help support London's economic resilience to crises. It would also provide insurance against the risk that financial services cannot sustain its historic GVA growth rate in a new regulatory context.

London is far more than a collection of large international businesses: it houses more of the world's leading universities than any other city; more of the world's most visited museums and galleries; and has the strongest entrepreneurial cluster in Europe[8], whose start-ups are a vibrant part of a broad ecosystem of small-, medium- and large-sized businesses across sectors. The city's fundamental strengths in research, talent, creativity and finance should make it an unparalleled location for commercial innovation and it already has as many technology and information workers outside manufacturing as San Francisco and San Jose combined[9].

London has demonstrated the economic power of this strength: since the financial crisis the two areas of the economy driving the largest GVA increases have been the technology and creative sectors[10]. These two areas are highly interlinked: for example, much of the underlying growth in the creative sector comes from digital advertising.

However, in order to maximise the longer-term economic impact from these areas of the economy, London's strengths in ideas and early-stage entrepreneurship need to be translated into strong business growth. There have been some recent successes, such as Zoopla and DeepMind, that demonstrate this can be done: however London's smaller and more innovative businesses face challenges in scaling up, limiting their ability to drive substantial job creation.

First, these businesses often rely on people with scarce technical skills. Talent shortages are identified by London's tech entrepreneurs as the single biggest barrier to growth[11]. Second, they have access to fewer equity-based financing opportunities than their counterparts in US cities[12]. Uncertain cash flows and limited collateral mean these businesses often need to look beyond traditional bank funding, and they suffer from London's relatively shallow venture capital market, particularly in bridging the gap between the level covered by angel investors and that covered by private equity and the stock market.

[6] See Figures 1011 and 1213 in main report

[7] *UK China Visa Alliance, Building On Progress: streamlining the UK visa application process for Chinese visitors,* June 2014

[8] *QS World University Rankings 2014/15; World Cities Culture Forum, World Cities Culture Report 2014;* See discussion in main report pages 33 and 66

[9] Liebenau, Jonathan, Mandel, Michael, London, Digital City on the Rise, July 2014

[10] See Figure 1415 in main report

[11] GfK, *Tech City Futures Report*, May 2013

[12] TheCityUK, *Alternative finance for SMEs and mid-market companies*, October 2013

In addition, London's standing as a technology capital is held back by a reputation for poor digital connectivity, driven by some pockets of under-performance. While world-class corporate Ethernet connections are available across the city, 11% of premises do not have access to superfast broadband[13], a cheaper consumer product also used by many small businesses. This is a particular challenge because these areas are concentrated in the centre and East of London where many high-growth SMEs (small and medium-sized enterprises) are located.

Where London should focus

4. **Train more technical talent:** respond to market shortages of technically-capable workers by improving education and training at all levels from school through to adult education.
5. **Improve digital connectivity:** ensure high-speed, affordable, secure and resilient digital connectivity across the whole of London.
6. **Improve funding for growing SMEs:** expand access to equity-based funding opportunities for high-growth SMEs, filling the gap between start-up funding and flotation.

C. Addressing weaknesses: The City that Works

To underpin London's ability to attract and retain talent, and to create growth and jobs across more areas of the city, London needs an effective, integrated and affordable system of transportation and housing. The city's rapid population growth is putting increasing strain on its existing infrastructure. The draft London Infrastructure Plan identifies over £1 trillion of spending that is likely to be required between now and 2050 to support the city's population and economic growth[14].

On housing, delivery is not moving fast enough; around half as many new homes are being built as are needed (around 25,000 completed each year against a projected need for over 50,000)[15]. While new home construction is picking up with the economic cycle, reaching 50,000 new homes each year remains a challenge. Meanwhile, rising housing costs are increasingly putting pressure not just on residents but also on businesses – partly because commercial space is being shifted to residential use, which pushes up commercial costs, and partly because high costs are beginning to make it harder to attract and retain talented people for all but the highest-paid jobs.

On transport, London has seen substantial investment over the past decade; but this needs to be maintained to allow growth in commuting, to make new areas viable for housing development and to bring growth to previously neglected parts of the city.

The biggest challenge for London in meeting its investment requirements is funding. London is much more reliant on 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[16]. If it is successfully to drive long-term investment, London needs more certainty in its funding streams, the ability to control a higher proportion of the taxation raised in London and a fiscal base against which it can borrow. This is not about London reducing its contribution to the national exchequer; additional local tax-raising would be offset by a reduction in central government grants to London.

Alongside these challenges in maintaining London's infrastructure, London needs to make growth more inclusive. Despite its economic success, London has a higher proportion of households in poverty and a higher unemployment rate than the UK overall[17]. Lower-income Londoners face a triple challenge: high and rising costs of living; a shrinking pool of lower- and mid-skill jobs; and a highly competitive labour market where they compete with top talent from across the world. The city faces missed economic opportunity from both the unemployment and under-employment of lower-skilled Londoners, as well as long-term risk to social cohesion and stability. Much more needs to be done to equip Londoners with the access, ambition and skills they need to compete in tomorrow's labour market.

London is far more than a collection of large international businesses: it houses more of the world's leading universities than any other city; more of the world's most visited museums and galleries; and has the strongest entrepreneurial cluster in Europe, whose start-ups are a vibrant part of a broad ecosystem of small-, medium- and large-sized businesses across sectors.

[13] See Ofcom UK Fixed Broadband Data 2013, available at http://maps.ofcom.org.uk/broadband/broadband-data/

[14] Greater London Authority, *Long Term Infrastructure Investment Plan for London: A Consultation*, October 2014

[15] GLA, *Barriers to Housing Delivery- Update: Private Sector housing Development on Larger Sites in London*, July 2014

[16] Slack, Enid, *International Comparison of Global City Financing*, 31 January, 2013

[17] Aldridge et al, *London's Poverty Profile 2013*, 2013

London's economy is deeply intertwined with the rest of the UK. The two are critical trading partners, sources of talent for each other, and mutually-supportive locations for successful UK clusters such as life sciences and financial services.

Where London should focus

7. **Secure long-term infrastructure investment:** negotiate greater devolution of taxes raised in London and expand London's ability to capture the uplift in property values from transport investment.
8. **Accelerate housing delivery:** improve incentives, coordination, capabilities and resourcing across the GLA and the boroughs to increase dramatically the planning and building of new homes.
9. **Develop Londoners' employability:** dramatically scale up efforts to ensure that everyone who grows up in London is equipped to compete for jobs in a changing and increasingly competitive labour market.

LONDON AS PART OF THE UK

London's economy is deeply intertwined with the rest of the UK. The two are critical trading partners, sources of talent for each other, and mutually-supportive locations for successful UK clusters such as life sciences and financial services.

However, recent jobs and GVA growth in London has tended to be notably stronger than that of the UK as a whole. This is an issue for two reasons.

First, it raises the question of whether the UK as a whole is set up to make maximum use of its access to one of the world's global economic hubs, be that through better transport connections, more co-operation in overseas promotion, for example, in tourism, or deeper links with UK suppliers, for example, in construction.

Second, it raises the risk that differing economic performance will drive further political divergence. The whole of the UK needs to co-exist under a single set of national policies, for example on tax, immigration or interest rates. Economic and political differences between the capital and the rest of the country put this balance at risk.

Given this, a critical plank of London's economic strategy should be to work with other parts of the UK in leveraging London's strengths to support their own growth plans.

10. **Support UK-wide growth:** step up support to economic development across the UK, with a stronger role in promoting city devolution, forging regional co-operation and designing complementary growth strategies.

What this agenda could deliver

Given the specific focus of this agenda, jobs and GVA growth will be the ultimate measure of its success. By 2036, London's economy should reflect progress against each of the themes we have identified. If this is achieved then London's economy will have made progress towards this broad set of economic ambitions:

A. Cementing existing leadership: The Global Hub

- ☑ Attracts and welcomes the best talent from around the world to study and to work
- ☑ Is the first choice location for global businesses, whether from mature or emerging markets
- ☑ Has a clear lead as the world's most important centre for financial and business services
- ☑ Attracts significantly more spend from overseas visitors than anywhere else in the world
- ☑ Has an unrivalled breadth of global relationships across Europe, the Americas, Asia and Africa

B. Fuelling more diverse growth: The Creative Engine

- ☑ Is the best place in the world to be an entrepreneur, whether starting up or scaling up a business
- ☑ Has the world's strongest collection of academic institutions and uses them to fuel world-beating innovation
- ☑ Is the world's capital of culture, reflected in the world's largest creative sector
- ☑ Has the world's largest technology cluster, not counting physical manufacturing
- ☑ Provides a better environment than anywhere else for fast growing firms, with the technical talent and digital infrastructure to support growth

C. Addressing weaknesses: The City that Works

- ☑ Controls a minimum of 10% of its total tax-base and has the ability to fund and finance its own long-term investments
- ☑ Has an integrated transport system that stays ahead of rapidly expanding needs across the region
- ☑ Builds housing at a rate of at least 50,000 new homes a year
- ☑ Creates economic opportunity for all its residents and reduces unemployment to at least the UK average
- ☑ Responds quickly and co-operatively to new threats and opportunities, through a well-functioning governance system

And across all three priorities:

- ☑ Works closely with the rest of the UK to generate economic growth across the country as a whole

WHAT NOW

Other cities face similar challenges. Some have similar strengths. Many have similar ambitions. However London uniquely combines a realistic aspiration to be the leading global hub for business at the same time as being the leading capital of creativity and technology – and has to pursue this aspiration while operating within a complex governance model that considerably limits its freedom to fix its own problems.

Achieving the goals set out earlier – the fastest income growth among our peers; higher employment rates; and a more diverse and resilient economy – will require focused implementation. Each of the priority areas identified in this agenda needs to be translated into a programme of action that brings together a broad set of stakeholders: local and national, private and public. Coalitions of multiple actors will be needed to deliver this agenda as no single body has all the levers London needs to drive success.

Successful delivery would mean more employment opportunities and a greater variety of work for Londoners; easier and faster growth for business owners; more affordable housing and better transportation; and London playing its part in delivering a stronger economy for the UK as a whole.

The challenge is complex; we believe the prize is worth it.

CHAPTER 1
Our purpose and approach

Many of the most important issues driving London's economy are not in the control of London's government, and this agenda will only be delivered with support from all stakeholders: private, public, local, regional and national.

PURPOSE OF THIS REPORT

This business-led report aims to identify where London's stakeholders should focus to maximise job creation and economic growth in London between now and 2036[18]. It has been produced by London First for the London Enterprise Panel, with analytical support provided by McKinsey & Company.

Three considerations have framed our approach to this report.

First, our scope is tightly **focused on jobs and economic growth**. This is not a new or comprehensive strategy for London. We do not consider important issues such as health, leisure or the environment except insofar as they directly influence the economy, for example in the way London's position as a cultural centre drives its success in the creative industries. Our conclusions are consistent with the current Mayor's overall "2020 Vision" for London, but our work has a much-narrower focus and seeks to go further in establishing a set of delivery priorities to drive economic performance.

Second, this report describes an **agenda for London** as a whole rather than just for the GLA or broader London government. Many of the most important issues driving London's economy are not in the control of London's government, and this agenda will only be delivered with support from all stakeholders: private, public, local, regional and national. We recognise that most of London's historic success has been unplanned and future economic opportunities will similarly flow from market forces: our goal is to identify the places where something more is required, recognising the complex inter-relationship between actions by both the private and public sectors across every part of London's economy.

Third, this report seeks to **identify the priorities for action** rather than to define all of the potential areas which could support economic success. This agenda focuses on areas where new action is needed, either because the issue has not received attention or because there is a gap between the issue's importance and the level or effectiveness of existing interventions. We seek to draw together the common themes from existing work into an up-to-date and integrated agenda for London. Many of the challenges we describe are not new and have been looked at extensively in the past: however, there is not yet sufficient action being taken in response to them.

This agenda represents the first phase of work. The next phase is to turn this agenda into a prioritised plan of action, and at the end of this document we discuss what will happen next. Each of the areas we have identified needs to be translated into a set of specific short-term and long-term actions. This will require involvement from a broad set of stakeholders and an investment of time and energy from groups across London. We believe the prize is worth it.

THE SCALE OF THE PRIZE

Economic success for London matters. Income growth not only improves living standards for London's workforce, it also fuels our ability to invest in creating opportunity, improving public services and investing in infrastructure – not just in London but across the UK. Jobs growth will be critical to maintaining employment given offshoring and automation of jobs across the income spectrum.

London has the potential to step up its economic performance, and should aspire to be a city economy with:

- **the fastest income growth among cities of its scale and type**, with growth in GVA per head that is faster over the long-term than New York, Paris or Tokyo's, and that delivers more benefit to the wider UK;
- **job growth that translates into opportunity**, with employment rates higher than both the UK average and the equivalent rates in New York and Paris; and
- **diversity and resilience**, with strong performance across more of the economy in order to improve the city's resilience against crises, with no single sector driving more than 40% of GVA or jobs growth[19].

[18] Reflecting the timescale of the London Plan, the Mayor of London's statutory spatial development strategy

[19] This is less than the contribution of financial services to GVA growth or of business services to jobs growth over the last ten years

As we describe in Chapter 2, London does not meet any of these aspirations today.

Small differences in performance translate into very large economic impacts over time. By 2036 the difference between growing jobs at 1% a year (roughly London's performance running up to the crisis) and growing jobs at 2% a year would be worth 1.7 million jobs. Equally, a shift from 1% growth in GVA per worker to a 2% growth in GVA per worker would be worth over £100 billion in GVA by 2036 – in today's prices.

Predicting future economic performance is of course fraught with challenge – but these numbers give a sense of the size of the prize for London, and the national importance of getting it right.

APPROACH AND METHODOLOGY

This work looks at London's performance between now and 2036, reflecting the end-point of the latest iteration of the London Plan, the Mayor's spatial development strategy[20]. This timescale is long enough to drive change and see results across a city of London's complexity but short enough to keep this work firmly grounded in the existing realities of the city.

This agenda has been developed to be consistent with critical GLA assumptions and projections (in particular the latest population forecasts that underpin the London Plan, and the infrastructure investments described in the draft of the London Infrastructure Plan 2050). We have sought to develop priorities with regard to the Mayor's statutory strategies for Transport, Housing and Economic Development. However, this document describes a business-led agenda for economic growth; it is not a GLA strategy. In addition, the most recent Economic Development Strategy was published in 2010 so this document reflects a more recent view on London's performance, and we hope it will provide an updated evidence base for future strategy revisions.

The long-term priorities for London's economy identified in this report are founded in several parallel strands of analysis, reflected in the structure of this report.

In Chapter 2 we describe London's economic starting point. We began our work by understanding the long-term trajectory that led to London's economic position today, and by looking at its performance in comparison to other cities of its scale and type.

In Chapter 3 we describe London's changing global context. We sought to define what kind of economy London is likely to be operating in by 2036, and what threats and opportunities this creates. The work underpinning this chapter included reviewing existing material on the major forces at work in the global economy and distilling the most important potential effects on London and its peers and competitors.

In Chapters 4 and 5 we describe London's economic strengths and weaknesses. This material is based on an extensive fact base we created, drawing together existing research and new analysis to understand London's strengths and weaknesses across the most important factors that drive economic growth. We have sought to understand what strengths have driven London's past economic success (including whether the city can rely on them in the future) and what weaknesses challenge the city's economic success today (including whether these challenges are likely to worsen or improve).

In Chapter 6 we describe London's context within the UK. We analysed the most important inter-relationships between London and other parts of the UK, in order to understand how they affect the economic performance of both London and the UK today and how this could change in the future.

In Chapters 7 and 8 we describe economic ambitions for London and the priorities for action that will be required to deliver them. The process of moving from the facts to the priorities is of course one that involves judgement, and we have sought to explain the judgements we have made. The priorities range from those which could straightforwardly be described as corrections for market failures (e.g., in the provision of infrastructure), through broader advocacy relating to existing areas of public policy (e.g., immigration), to priorities that address the governance issues that need to be resolved to support London's development.

In Chapter 9 we explore next steps and how to move towards implementation.

[20] Greater London Authority, *Draft Further Alterations to the London Plan*, January 2014

HOW WE BUILT THE FACT BASE ON LONDON

Our core analysis examined London's economy through five lenses that reflect the academic literature on the key drivers of a regional economy[21]. These lenses, each of which is mentioned throughout the report, are described below.

1. **Economic sectors and clusters:** Which specific clusters of economic activity are likely to drive future growth for London? Why are they located in London and what can London do to build further attractiveness to them? What are the potential risks?
2. **Innovation and entrepreneurship:** How is London performing in terms of innovation, the commercialisation of ideas and business creation? Where are the areas of strength and weakness? What would it take to drive further innovation-fuelled growth?
3. **Governance and business climate:** How attractive is London as a place to do business compared to global peers? What are the strengths and weaknesses in the governance model? What are the biggest policy risks to growth?
4. **Human capital:** How strong is London's talent base relative to international competitors'? Where are the important skills gaps relative to demand today or in the future, and how can they be filled? Is all of London's talent being successfully deployed into jobs?
5. **Physical and virtual infrastructure:** How does London's infrastructure support growth today? Which infrastructure priorities will have the biggest impact on economic growth? Are they likely to be effectively funded and delivered?

In Figure 1 we include a mapping of this report's key conclusions against these five lenses.

Figure 1

SUMMARY OF THE FACTBASE

Strengths to build from		Weaknesses to address
▪ World-leading position in financial and business services ▪ Strong positions in technology, creative and tourism, all with long-term growth potential	**Economic sectors and clusters**	▪ Growth highly concentrated in a few sectors, which has increased vulnerability to crisis ▪ Risk that financial services may grow more slowly in the future than it has in the past
▪ World-beating universities, which are now performing well on commercialisation ▪ Largest start-up cluster in Europe, driven by high-growth technology firms	**Innovation and entrepreneurship**	▪ Relatively shallow financing pool for fast-growing, innovative businesses ▪ SMEs facing barriers to growth: particularly technical talent and overall cost levels
▪ Long-term business friendly climate has driven status as leading business capital ▪ International openness has established leading status as global hub	**Governance and business climate**	▪ Highly dependent on national funding, much less city-level power than peers ▪ Risks from national policy-making, particularly around EU and immigration
▪ Global leader in graduate level talent, both home-grown and attracted from elsewhere ▪ Strongest region in the UK for school performance	**Human capital**	▪ Weak performance on STEM skills reflecting UK-wide weakness ▪ Risks to quality of life from rising costs ▪ High unemployment and poverty rates
▪ Existing programme of major projects to fill critical infrastructure gaps (e.g., Crossrail)	**Physical and virtual infrastructure**	▪ Growing need for transport (across region) ▪ Housing not being built fast enough ▪ International connectivity lagging peers ▪ Pockets of weak digital infrastructure

[21] See summary in World Business Chicago, *A Plan for Economic Growth and Jobs*, 2012

CONSULTATION WITH STAKEHOLDERS

Across each of these stages, our work has been informed by extensive consultation with a wide range of stakeholders from across London. Those consulted have included business leaders of small, medium and large-sized companies, educational leaders, key figures in the governments of both the UK and London, as well as third-sector representatives, economists and urban experts. In total, around 400 people were consulted; their institutions are listed in the acknowledgements.

This consultation process was designed to ensure this report benefited not just from the latest data on London but also from qualitative input from experts, not least from the community of leaders who will ultimately need to deliver against the priorities identified. Consultation took place in a range of formats, notably roundtables, individual interviews and sector-specific groups. In addition, this work was steered by a formal Working Group of the LEP and supported by an official Advisory Group of business, public and third sector leaders who acted as an invaluable sounding board. Membership of these groups is listed in the acknowledgements.

SMALL DIFFERENCES IN PERFORMANCE TRANSLATE INTO VERY LARGE ECONOMIC IMPACTS OVER TIME. BY 2036 THE DIFFERENCE BETWEEN GROWING JOBS AT 1% A YEAR (ROUGHLY LONDON'S PERFORMANCE RUNNING UP TO THE CRISIS) AND GROWING JOBS AT 2% A YEAR WOULD BE WORTH 1.7 MILLION JOBS.

WHAT WE HEARD FROM STAKEHOLDERS

The voices of stakeholders are reflected throughout this report. Below is a brief snapshot of the key themes we heard during our consultation process.

Economic sectors and clusters: there was clear consensus that London needs to perform both in areas of traditional strength (e.g., financial and business services) and in more diverse engines of future growth (e.g., tourism, technology and the creative industries).

Innovation and entrepreneurship: there was shared excitement about the potential for London to diversify its growth through creativity and technology, as well as anxiety that London does not sufficiently translate early- stage entrepreneurship into large scale job creation.

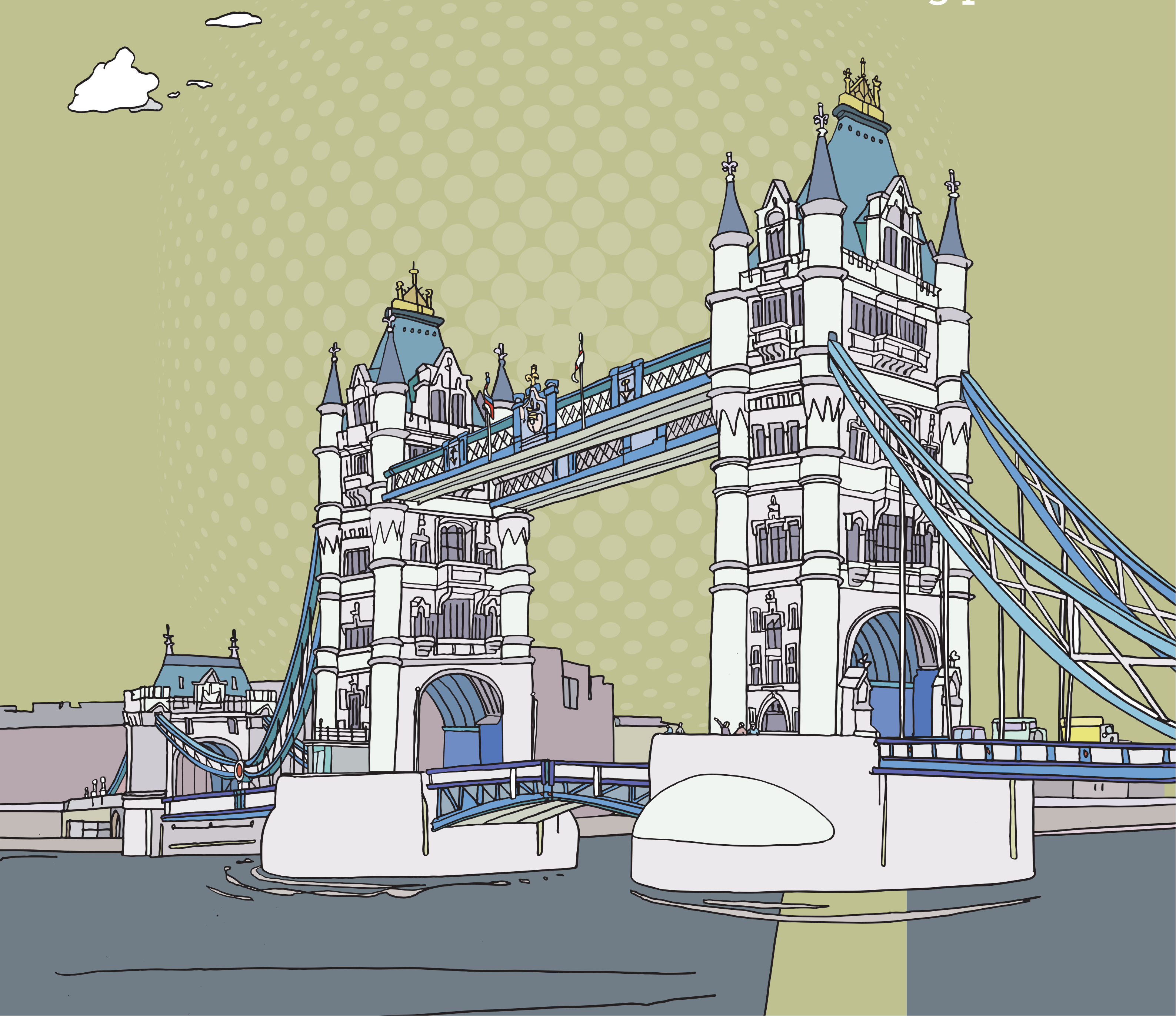
Governance and business climate: stakeholders agreed that London has the fundamental strengths to be the principal destination for global businesses. However there was concern about the potential for national policy to hold back growth (particularly policy on the EU and immigration) and concern that devolution to cities was not moving fast enough.

Human capital: we heard great enthusiasm for London's role as the global hub for talent and for its unrivalled breadth and depth of talent. However the need to give all Londoners the skills to compete effectively for jobs was a recurring theme.

Physical and virtual infrastructure: infrastructure across London was seen by many as an area of weakness, with particular concern about housing, digital infrastructure, airport capacity and transportation across both the city and the wider region.

CHAPTER 2

London's starting point



LONDON'S LONG-TERM SUCCESS

London has long experience of economic success. In 1500 Beijing had a population 10 times larger than London's, but by 1900 London had firmly established itself as the largest and most successful city in the world. At that point London was 50% larger than New York, its nearest rival [Figure 2]. Today others have grown to join London in the first rank of global cities and, while many are more populous, London remains one of the top five most successful cities in the world by total GVA (with its exact rank depending on precisely how city boundaries are defined).

Figure 2

CITY GROWTH 1500-1900

World's largest cities, 1500-1900, millions inhabitants

	1500		1600		1800		1900	
1	Beijing	0.7	Beijing	0.7	Beijing	1.1	**London**	**6.5**
2	Istanbul	0.7	Istanbul	0.6	**London**	**1.1**	New York	4.2
3	Vijayanagar (India)	0.5	Agra	0.5	Guangzhou	0.8	Paris	3.3
4	Cairo	0.4	Osaka	0.4	Tokyo	0.7	Berlin	2.7
5	Tabriz (Iran)	0.3	Kyoto	0.3	Istanbul	0.6	Chicago	1.7
	London	**0.06**	**London**	**0.2**				

SOURCE: Tertius Chandler, (1987), Four Thousands Years of Urban Growth

London's long-term success has been driven by powerful fundamentals that have endured across centuries, and that have proven resilient to new circumstances. For example:

- London, as part of the UK, has seen long-term political stability and the rule of law;
- London has occupied a favourable geographic position, with a globally-convenient time-zone and widely-used language;
- London has held a position at the heart of global trade, historically through its international links across the British Empire and today through its position within the European Union, the world's largest single market;
- London has benefited from, and contributed to, the long-term success of the UK economy; and
- even as it has largely de-industrialised London has successfully taken advantage of changing economic circumstances to become a centre of the modern service economy, capitalising on its agglomeration of talented people.

LONDON'S RECENT PERFORMANCE

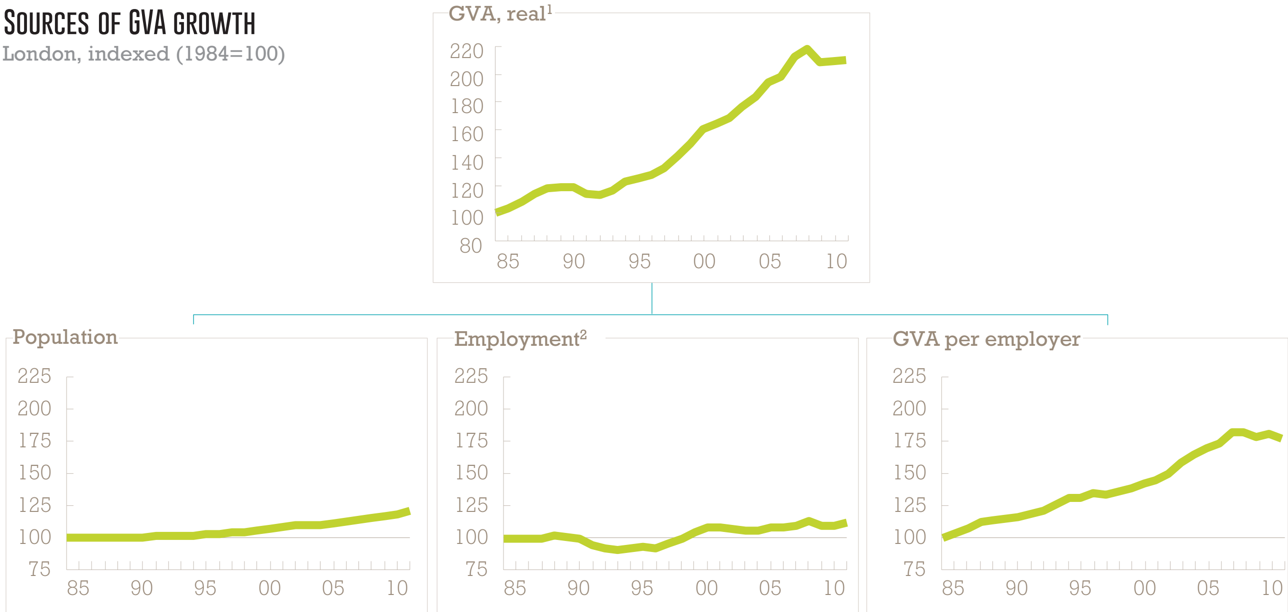
Looking at the more recent past, London has more than doubled its total output in real terms since 1984. This has been driven not by dramatic growth in population or employment rates, but by increases in real GVA per worker [Figure 3], reflecting a shift to higher-skilled, higher productivity employment.

ON OVERALL ECONOMIC GROWTH, LONDON WAS AHEAD OF ITS RIVALS UNTIL 2008, BUT HAS NOW FALLEN BACK TO BEING ONE OF THE PACK [FIGURE 4]. IT IS ALSO WORTH NOTING THAT LONDON'S PERFORMANCE THROUGH THIS PERIOD IS FLATTERED BY THE PERFORMANCE OF THE POUND – LOOKING AT GVA IN PPP TERMS LONDON IS SIGNIFICANTLY BEHIND BOTH NEW YORK AND PARIS ON TOTAL GROWTH THROUGH THE PERIOD SHOWN.

Figure 3

Sources of GVA growth

London, indexed (1984=100)



1 From 2000 onwards, GVA growth based on figures from ONS. From 1985 - 2000 based on estimation from Expedia Economics
2 Employment estimates are workplace based, thus include commuters. Figures exclude self-employed

SOURCE: ONS; GLA Intelligence; Expedia Economics; team analysis

However, since the 2008 global financial crisis, London has seen a flattening off in GVA per worker, driven in particular by the decline in economic contribution from financial services. At a UK level, much has been written about potential causes of this "productivity puzzle" – the Bank of England has described the two biggest factors at work as underinvestment in physical and intellectual capital and unexpected numbers of firms surviving the recession[22].

By contrast to GVA, the London economy has successfully grown employment since the crisis. London's unemployment rate has historically been higher than the UK average but the city's unemployment has fallen dramatically, standing at 6.3% in Q3 2014, leaving the gap between London's unemployment and UK unemployment at its narrowest since the current data began in 1992[23].

London's recent record is therefore mixed. Despite encouraging long-term growth, the city's economy has proven highly vulnerable to crisis, and has struggled to achieve increases in both employment and productivity at the same time.

London compared to other cities

This mixed performance is also seen when London's performance is compared with other cities of its scale and type.

On overall economic growth, London was ahead of its rivals until 2008, but has now fallen back to being one of the pack [Figure 4]. It is also worth noting that London's performance through this period is flattered by the performance of the pound – looking at GVA in PPP[24] terms London is significantly behind both New York and Paris on total growth through the period shown.

London's performance on unemployment also looks less impressive when compared internationally. Comparing performance as at Q2 2014 (the latest international comparisons available) London's drop in unemployment rate had also been achieved by other major cities, so London sits as one of the pack on unemployment, much as it does on economic growth [Figure 5].

[22] Bank of England, Working Paper No. 495, The productivity puzzle: a firm-level investigation into employment behavior and resource allocation over the crisis, April 2014

[23] GLA, London Housing Market Report, November 2014

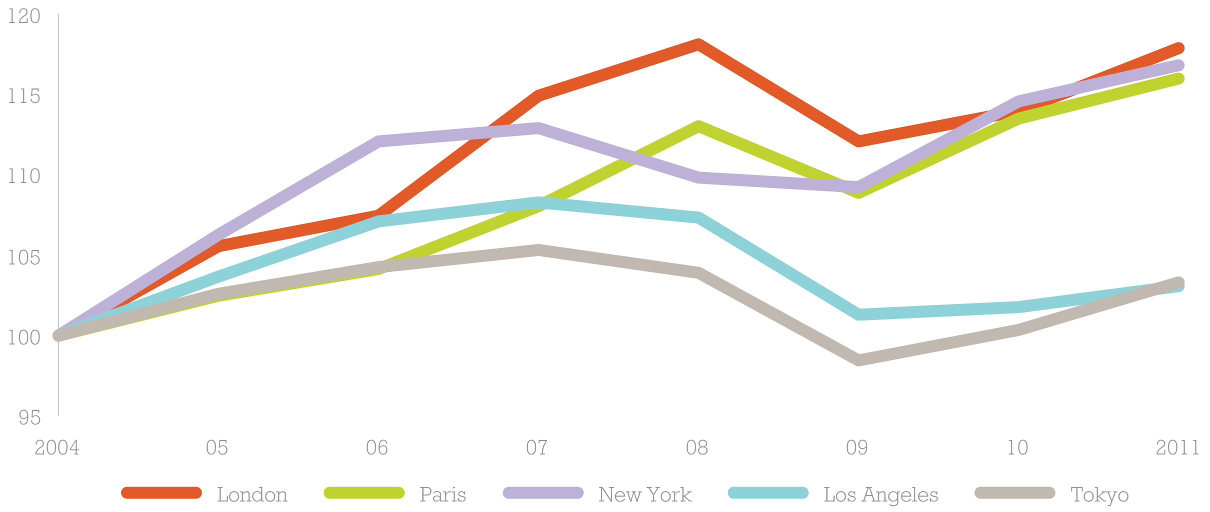
[24] Purchasing Power Parity

Figure 4

Comparison of London with other cities

Real GDP/GVA

Indexed to 2004=100



Note: Tokyo defined at the 1 precinct level (population ~13m)

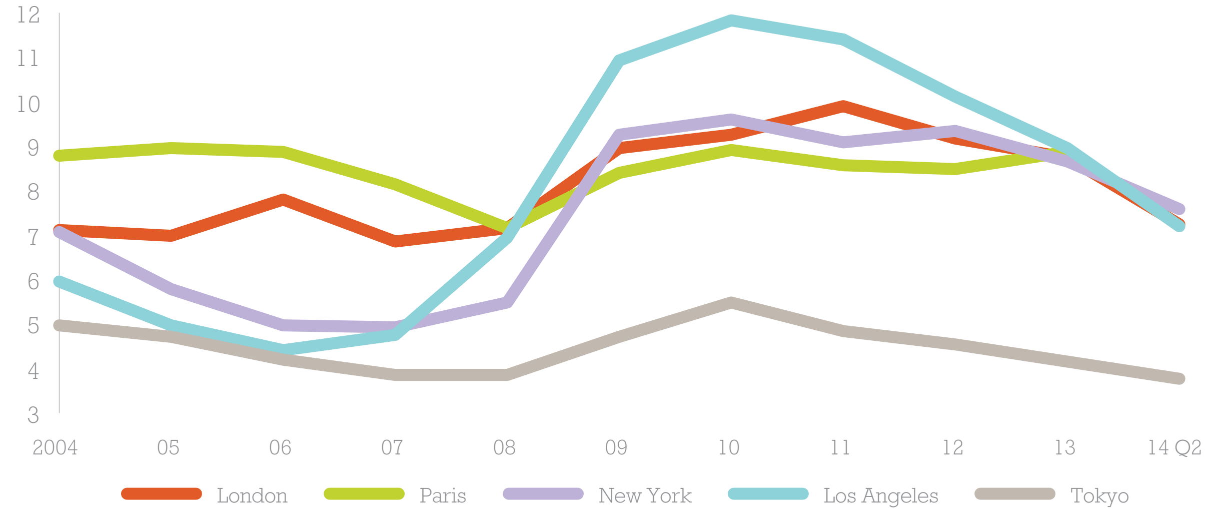
SOURCE: Eurostat; BEA; Moody's; Japan Bureau of General Affairs; IMF national deflators

Figure 5

Comparison of London with other cities

Unemployment

%



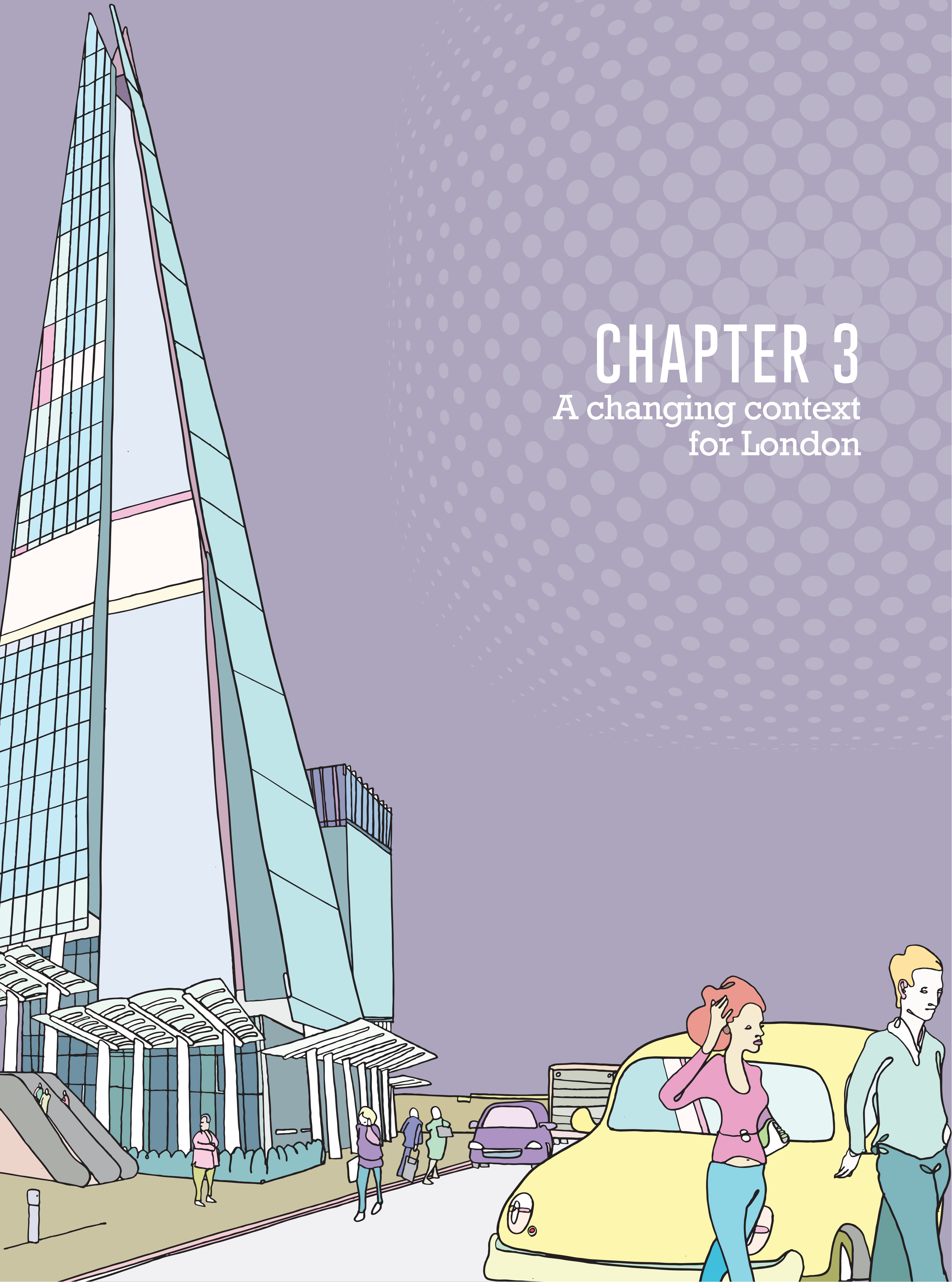
Note: Tokyo defined at the 1 precinct level (population ~13m); Paris data only available until end 2013

SOURCE: Eurostat LFS; LAUS Bureau of Labor Statistics; Japan 's Ministry of Internal Affairs and Communication

IMPLICATIONS FOR LONDON'S ECONOMIC PRIORITIES

- London has a strong economic starting point, but its productivity performance has been badly set back by the crisis, and the city should seek to build strength in a broad set of high productivity sectors to bolster its future resilience, while also maintaining its recent track record in job creation.

CHAPTER 3
A changing context for London



We remain fundamentally optimistic that cities will continue to grow in size and economic significance, particularly those like London that are built around a concentration of very highly-skilled people.

A CHANGING GLOBAL ECONOMY

As a starting point for understanding London's economic threats and opportunities, we have assessed London's changing context and attempted to define the kind of world economy in which London is likely to be operating by 2036. All of these observations are of course uncertain. They are based heavily on existing work, as outlined in the bibliography. Below we describe the most important assumptions we are making about the global economic forces that are likely to affect London's future economy.

First, we remain fundamentally optimistic that **cities will continue to grow in size and economic significance**, particularly those like London that are built around a concentration of very highly-skilled people. Looking at cities around the world there is no evidence that diseconomies of scale must necessarily occur beyond a certain city size, providing the city is well managed and supported by the necessary infrastructure[25]. There is also no clear evidence that the rise of remote working is going to lead to a decline in city populations by 2036 as the benefits of face-to-face interaction for the kind of complex, highly-skilled activities that happen in London continue to apply.

Second, we assume **emerging economies will continue to grow strongly**, particularly in Asia. This is reflected in our assessment of which cities are likely to be significant competitors to London in the future. While we recognise the risk of shocks and downturns that may affect the pace and magnitude of this growth (in particular the risk of Chinese slowdown or even recession) over the 20-year time horizon these are unlikely to derail the fundamental forces of urbanisation or the resulting rise in individual incomes.

Third, we assume **global flows of money, trade, people and investment will rise**. By 2012, the combined value of trade in goods and services and global financial flows reached $26 trillion, compared with just $5 trillion in 1990 and, despite short term setbacks from the crisis, this trend shows no sign of abating. This growth will likely increase the rewards to internationally open cities like London[26].

Fourth, we believe **the world will see the continuing rise of disruptive technologies**: for example, the further reach of the mobile internet, the cloud and the internet of things; and the growth of advanced robotics, autonomous vehicles and 3D printing. This implies that economic growth driven by innovation and technology is here to stay, and cities that are well equipped to adjust to new ways of working will prosper[27].

Fifth, we expect that **large-scale manufacturing will not return to high-cost cities like London**, even if re-shoring brings some manufacturing employment back to advanced economies as a whole. Changing technology may drive some pockets of growth, for example in close-to-market creation of prototypes through 3D printing. However, these pockets are unlikely to generate significant employment; particularly since the economic reasons to locate outside high-cost locations will become more compelling if employment grows.

Sixth, we believe the **returns to highly-skilled work will increase**. More and more jobs will face potential substitution by technology. Increases in computational ability, machine learning and advanced user interfaces are increasing the range of applicability of technology. As a consequence, returns to the highest skilled workers (those who are able to manage, lead and organise this technology) will continue to increase. Meanwhile, middle-skilled jobs are likely to continue to reduce as a share of the workforce[28].

There are a number of other forces at work that will have major impacts on the global economy: for example, an ageing population in both the OECD and China; a likely long term increase in resource prices as consumption of fuel and protein rises alongside global incomes; and a drive to extend environmental taxes and controls. We do not expect these forces fundamentally to change the picture of London's economy by 2036, though of course at the margin they will make some kinds of business more or less attractive and create pockets of both growth and decline.

Looking across these assumptions, one critical risk is that geopolitical instability could lead to a retreat of global openness and an associated decline in emerging market growth. In this scenario, global cities like London will be pushed to retreat towards their local markets, nationally or regionally, and are likely to see depressed growth. We have not sought to identify a back-up plan for London in this scenario as the strategies that will make London a global business capital will also leave it well-placed to be a European, or Western European, business capital in a more regional world.

[25] See discussion in *McKinsey Global Institute*, *Urban world: Cities and the rise of the consuming class*, June 2012

[26] McKinsey Global Institute, *Global flows in a digital age*, April 2014

[27] McKinsey Global Institute, Disruptive technologies: Advances that will transform life, business, and the global economy, May 2013

[28] McKinsey Global Institute, The world at work: Jobs, pay, and skills for 3.5 billion people, June 2012

A CHANGING SET OF PEERS

Reflecting this changing global economy, London can expect a changing set of peer and competitor cities.

Today the largest city economies in the world[29] are London, Los Angeles, New York, Paris and Tokyo. Among this group, who combine London's overall economic scale and levels of income per head, the only city that looks like a true peer to London is New York. New York uniquely shares London's cultural, economic and demographic internationalism, strength as a business and financial centre, and economic diversity. However, even compared to New York London stands out as the more global city, given New York's role as the economic capital of the US economy – for example London is significantly ahead in foreign exchange market turnover.

This group of cities will not stand out for their economic scale for much longer. By 2025 London is likely to be overtaken by Shanghai and Beijing in terms of absolute GDP [Figure 6, with cities defined by contiguous urban area, not administrative boundary]. By 2036 cities like Tianjin and Sao Paulo will have comparable overall GDP.

Figure 6

FUTURE CITY LANDSCAPE

2025 city rankings

Developing regions
Developed regions[1]

Rank	GDP[2]	Total population	Children[3]	Total households	Households with annual income over $20,000[4]
1	Tokyo	Tokyo	*Lagos*	Tokyo	Tokyo
2	New York	*Shanghai*	*Kinshasa*	*Shanghai*	*Beijing*
3	*Shanghai*	*Beijing*	*Karachi*	*Beijing*	*Shanghai*
4	Los Angeles	*Sao Paulo*	*Dhaka*	Osaka	Osaka
5	*Beijing*	*Dhaka*	*Khartoum*	*Chongqing*	New York
6	London	*Mumbai*	*Mexico City*[5]	*Sao Paulo*	London
7	Paris	*Mexico City*[5]	*Manila*	London	Paris
8	Osaka	*Delhi*	*Delhi*	New York	Rhein-Ruhr
9	*Sao Paulo*	*Karachi*	Tokyo	*Lagos*	*Moscow*
10	*Moscow*	New York	*Mumbai*	*Tianjin*	*Mexico City*[5]
11	Chicago	*Chongqing*	*Kolkata*	*Mexico City*[5]	*Sao Paulo*
12	Rhein-Ruhr	*Lagos*	New York	*Guangzhou*	Los Angeles
13	*Tianjin*	Osaka	*Baghdad*	Paris	*Tianjin*
14	Washington, D.C.	*Kolkata*	*Cairo*	Rhein-Ruhr	*Delhi*
15	*Guangzhou*	*Manila*	*Lahore*	*Wuhan*	*Mumbai*
16	Houston	London	*Sao Paulo*	*Delhi*	Seoul
17	Dallas	*Buenos Aires*	*Buenos Aires*	*Moscow*	*Istanbul*
18	Nagoya	*Tianjin*	Los Angeles	*Mumbai*	Nagoya
19	*Shenzhen*	Los Angeles	London	*Shenzhen*	*Shenzhen*
20	*Istanbul*	*Guangzhou*	*Istanbul*	*Dhaka*	Chicago
21	Randstad	*Istanbul*	*Luanda*	Los Angeles	*Buenos Aires*
22	*Mexico City*[5]	*Cairo*	*Shanghai*	*Chengdu*	*Guangzhou*
23	*Chongqing*	*Kinshasa*	*Hyderabad (IND)*	*Buenos Aires*	*Cairo*
24	*Singapore*	*Khartoum*	*Jakarta*	*Rio de Janeiro*	Milan
25	*Hong Kong*	*Shenzhen*	*Beijing*	*Nanjing*	Randstad

1 Developed regions comprise the US, Canada, Western Europe, Australasia, Japan and South Korea
2 GDP in predicted real exchange rate
3 Population below age 15
4 Households with annual incomes greater than $20,000 in purchasing power parity terms
5 Mexico City Metropolitan Region

SOURCE: McKinsey Global Institute Cityscope 2.0

This growth in other cities is not necessarily a threat to London. Other cities are as much opportunities for London, as markets, sources of talent and sources of investment, as they are competitors. In terms of overall peers to London, it is also hard to see another city emerging with the broad range of characteristics shared by London and New York.

However, individual cities are likely to threaten London on specific aspects of its strength even if they remain smaller in overall scale and scope. A number of smaller cities already hold very strong positions in particular aspects of global competition [Figure 7]. For example, London already faces strong competition from Singapore as a location for global business, Dubai as a hub for global travellers and from the West Coast of the United States as a centre for innovators and entrepreneurs.

[29] Slightly depending on how city boundaries are defined

Figure 7

CITY PARTICIPATION IN GLOBAL FLOWS

Hub in at least 4 major flows

Rank[1]	Flow: Goods Proxy: Ports	Goods, services, people Airports	Financial Financial centres	People Migration[2]	Data and communication Online traffic
1	Shanghai	Atlanta	London	New York	Frankfurt
2	Singapore	Beijing	New York	Los Angeles	London
3	Hong Kong	London	Hong Kong	Hong Kong	Amsterdam
4	Shenzhen	Tokyo	Singapore	Toronto	Paris
5	Busan	Chicago	Tokyo	Miami	New York
6	Ningbo	Los Angeles	Zurich	London	Los Angeles
7	Guangzhou	Dubai	Boston	Chicago	Stockholm
8	Qingdao	Paris	Geneva	Sydney	San Francisco
9	Dubai	Dallas/Fort Worth	Frankfurt	San Francisco	Miami
10	Rotterdam	Jakarta	Seoul	Moscow	Tokyo
11	Tianjin	Hong Kong	Toronto	Houston	Singapore
12	Kaohsiung	Frankfurt	San Francisco	Paris	Milan
13	Kuala Lumpur	Singapore	Luxembourg	Dubai	Hong Kong
14	Hamburg	Amsterdam	Chicago	Riyadh	Moscow
15	Brussels	Denver	Sydney	Washington, DC	Hamburg
16	Los Angeles	Guangzhou	Shanghai	Dallas	Madrid
17	Tanjung Pelepas	Bangkok	Washington DC	Melbourne	Washington DC
18	Xiamen	Istanbul	Montreal	Singapore	Vienna
19	Dalian	New York	Vancouver		Brussels
20	Long Beach	Kuala Lumpur	Vienna		Prague
21	Bremen	Shanghai	Calgary		Copenhagen
22	Laem Chabang	San Francisco	Kuala Lumpur		Warsaw
23	Jakarta	Charlotte	Monaco		Budapest
24	New York	Las Vegas	Qatar		Beijing
25	Tokyo	Incheon	Dubai		Taipei

1 Rankings come from different years: ports (2011), airports (2013), financial centres (2013), migration (2007) and online traffic (2013)
2 Metropolitan areas with at least 1 million foreign-born residents. Exact foreign-born population of Jiddah not known
SOURCE: Lloyd's List; Containerisation International; Airports Council International; Global Financial Centres Index; Migration Policy Institute; Telegeography; McKinsey Global Institute analysis

Many of these competitor cities can use their greater political autonomy to more actively pursue global businesses, talent and investment. Singapore, for example, has successfully sought out and attracted foreign direct investment through its Economic Development Board, a high-performance agency that provides a single point of government service for international investors and has control or influence over the full range of economic levers to attract specific international targets. Dubai has used a combination of zero corporation tax and the use of English law to build a financial services hub in under a decade.

London is thus likely to have a broad set of competitors by 2036. One hypothesis, to give a picture of this diversity, is listed below:

Peers for overall economic scale: Tokyo, New York, Shanghai, Los Angeles, Beijing (potentially Sao Paulo, Tianjin)

Peers as global centres for finance and business: New York, Tokyo, Singapore, Hong Kong (potentially Dubai, Seoul, Frankfurt)

Peers as hubs for technology, education and innovation: New York, San Francisco, Tel Aviv, Boston (potentially Singapore, Berlin, Bangalore, Shanghai)

The competitive challenge for London is less that "new Londons" will emerge as true peers and compete with London across all fronts, but more that specific areas of strength will come under attack from a range of competitors, many of whom are more specialised.

WHAT THIS CHANGING CONTEXT MEANS FOR LONDON

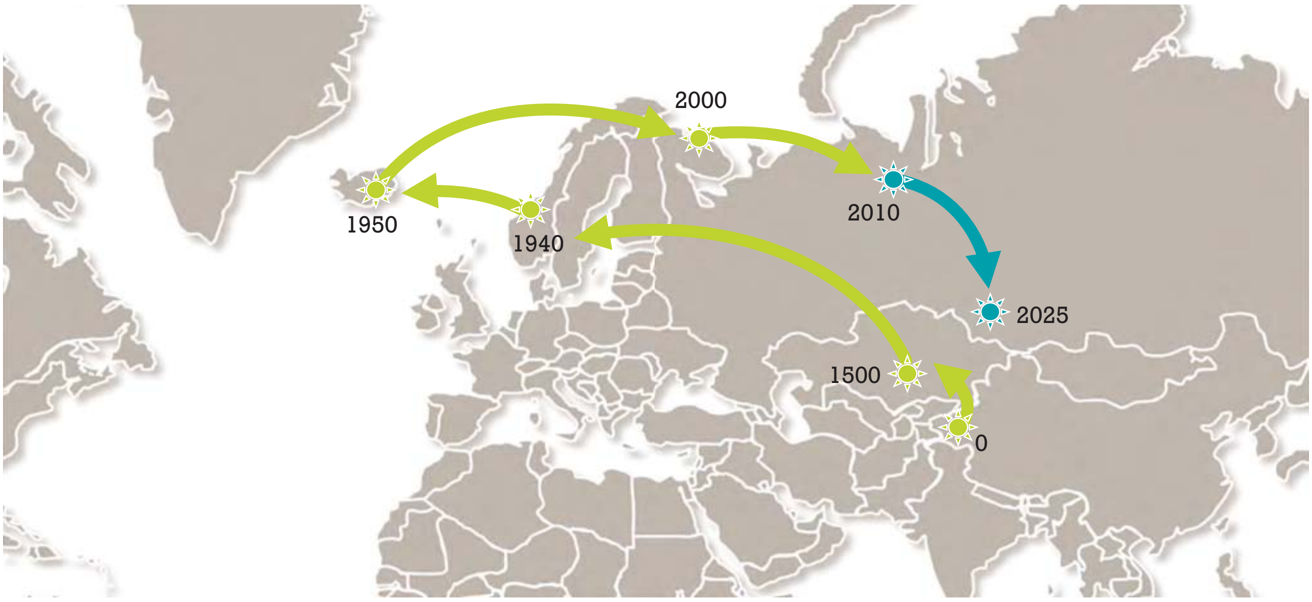
Many of the changes we describe above will be to London's – and therefore the UK's – benefit. High-skill, open, innovative city economies are well positioned to take advantage of the changing global context.

However, the combination of a world economy that is shifting East at an unprecedented pace [Figure 8] and the emergence of potential competitor hubs in emerging markets presents a risk for London. Many of London's future competitors for international business and talent are geographically, culturally and linguistically closer to growth markets in Asia (particularly China).

Figure 8

The world's economic centre of gravity

Locations weighted in 3D space by GDP



SOURCE: McKinsey Global Institute

The risk is that global flows of investment and talent that come to London today will increasingly be diverted to competitor cities closer to Asia, and that this will ultimately leave London in a position where it is one among many international hubs, rather than a pre-eminent leader.

Today London performs well in attracting emerging market investment. London's fundamental strengths in deep and liquid capital markets combined with investment expertise and developed regulatory and legal frameworks have given it a strong position. For example, London has proved to be the most popular global destination for Chinese investors in 2014[30] and is home to the first renminbi clearing bank outside Asia. However, London recently lost its title as the largest centre for offshore renminbi payments to Singapore[31].

As competition becomes ever tougher, London cannot afford to be complacent about its appeal to emerging markets. Even today, the city already has some notable weaknesses, for example in attracting Chinese visitors. London's attractiveness to Chinese visitors lags even its developed market peers:

- only 10% of Chinese tour groups to Europe each year are currently visiting the UK (by comparison, over 80% said their trips focused on itineraries for France and Germany);
- over five times as many Chinese tourists visit France as visit the UK (although UK visitor numbers are rising faster)[32]; and
- Chinese people rate both Paris and New York as "more important" than London when asked to comment on their perception of international cities[33].

Over time this vulnerability could have much broader impact on London's economy. The risk is that lack of familiarity with London among the Chinese population, particularly in fast-growing second-tier cities, could ultimately translate into a greater willingness and enthusiasm to look for investment opportunities elsewhere (for example around overseas location decisions that are dependent on senior executives' preferences).

[30] Jones Lang LaSalle tracking

[31] SWIFT RMB Tracker, October 2014

[32] UK China Visa Alliance, *Building On Progress: streamlining the UK visa application process for Chinese visitors*, June 2014

[33] Anholt-GfK Roper City Brands Index

IMPLICATIONS FOR LONDON'S ECONOMIC PRIORITIES

- London is well-placed to benefit from a changing global economy that will increase the returns to talent, global openness and investing in technology, but relative to its future competitors it suffers from fewer geographical, cultural and linguistic links to Asia in general and China in particular.

CHAPTER 4

London's platform for growth

London has a strong claim to housing the greatest concentration of talented people in the world. For example, 53% of London's population aged 21 and over are graduates – significantly higher than any other major world city.

London's economic performance has been driven by a set of complementary strengths which, in combination, describe its unique position in the world economy. Given our analysis of London's changing context, we believe that each of these strengths has the potential to become more, not less, significant in the future. Therefore the economic priorities we set out for the city begin with sustaining and developing these platforms for growth:

- London has **the most talented population in the world** with a higher proportion of graduates than any other major city, underpinned by more world-leading educational institutions than anywhere else and an environment that attracts talented people from around the world;
- London is **the leading international hub for business**, with more large international subsidiaries located here than any other city in the world, fuelled by a business friendly environment, access to a global and European network of opportunities and a talented workforce;
- London holds **the strongest position in financial and business services**, and its position in these two interlinked areas has driven impressive job and GVA growth even allowing for cyclical challenges;
- London is **a world-leading centre for technology, creativity and entrepreneurship**, benefiting from the rich and mutually supporting connections between its positions in technology and the creative industries; and
- London is **the global capital for international tourism**.

Each of these strengths is discussed below, along with an assessment of how London might protect and sustain it for the future.

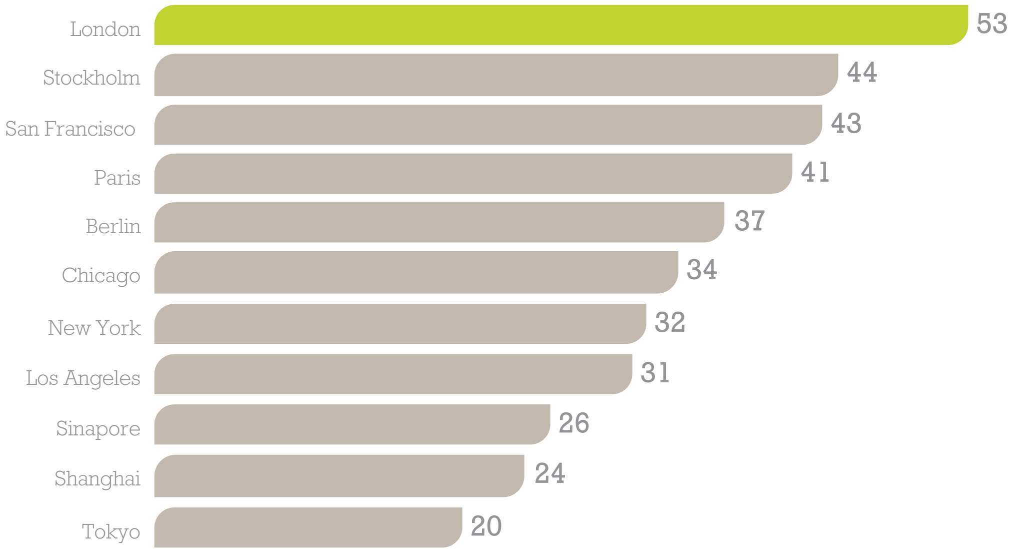
THE MOST TALENTED POPULATION IN THE WORLD

London has a strong claim to housing the greatest concentration of talented people in the world. For example, 53% of London's population aged 21 and over are graduates – significantly higher than any other major world city [Figure 9].

Figure 9

Proportion of graduates by city

Share of population that has graduated
%, 2012[1]



1 Most recent data source used, some cities earlier years
SOURCE: Annual Population Survey person datasets ONS (2013); Eurostat (2012); US census data (2010) ; Moody's Analytics (2011); Japan's National Census (2010); CEIC (2010); Singapore statistics Population Trends (2012)

On the one hand, this strength in talent reflects London's world leading position in tertiary education. London has the largest number of leading educational institutions of any city in the world[35]. London also has more international students than any other city in the world , reflecting both the strength and depth of its leading institutions. In addition, London has improved secondary school performance to lead England in pre-university education[36].

On the other hand, London's strength in talent reflects the city's ability to attract talent from elsewhere. Many talented people want come to London to live and work. This is driven not just by the economic opportunities the city offers, but also by London's fundamental appeal as a place to live. For example, London has: a liberal and open culture that welcomes diversity; true political and religious freedom; a long-standing role as a cultural capital; and a physical environment that is rich in both natural and architectural beauty.

This combination of economic opportunity and cultural and environmental appeal means London has a clear lead as the most popular city in the world when global employees are asked where they would consider moving to for work[37]. Smaller cities such as Vancouver, Copenhagen and Sydney tend to beat London in quality-of-life indices, but London is offering economic opportunity these cities do not match. When looking only at cities with comparable economies London performs well: for example, London ranks six places above both Tokyo and New York in the Mercer 2012 Quality of Living ratings[38].

Sustaining this strength

As talent becomes an ever-more-important driver of economic performance, London's strength in this area is a critical foundation for its success. Looking at potential threats to London's position, two areas stand out:

- the risk that restrictions to skilled migration, including on international students, will impede London's ability to attract talent from around the world
- the risk that further rises in the cost of living, particularly housing, will reduce the attractiveness of London to talented people.

In Chapter 8 we discuss potential responses to these challenges.

THE LEADING INTERNATIONAL HUB FOR BUSINESS

Defining and measuring relative performance as a global business hub is an art rather than a science. A number of indices seek to do this: looking across them, it is reasonable to say that London holds the global leadership position as a centre for international business (with New York its only real peer)[39]. Looking beyond the consensus of indices, whose methodology is often contentious, two concrete indicators of London's global leadership as an international hub for business are that it attracts nearly twice as many foreign investment projects as any other city in the world[40], and that it attracts more billion-dollar foreign subsidiaries than any other city in the world. While the locations of company headquarters tend to be driven by where the company is founded, the locations of large subsidiaries reflect the cities that international companies see as attractive business locations [Figure 10].

THIS COMBINATION OF ECONOMIC OPPORTUNITY AND CULTURAL AND ENVIRONMENTAL APPEAL MEANS LONDON HAS A CLEAR LEAD AS THE MOST POPULAR CITY IN THE WORLD WHEN GLOBAL EMPLOYEES ARE ASKED WHERE THEY WOULD CONSIDER MOVING TO FOR WORK.

[36] Joint Council for Qualifications regional data

[37] BCG and The Network, *Decoding Global Talent*, October 2014

[38] Mercer, *2012 Quality Of Living Worldwide City Rankings Survey*, 2013

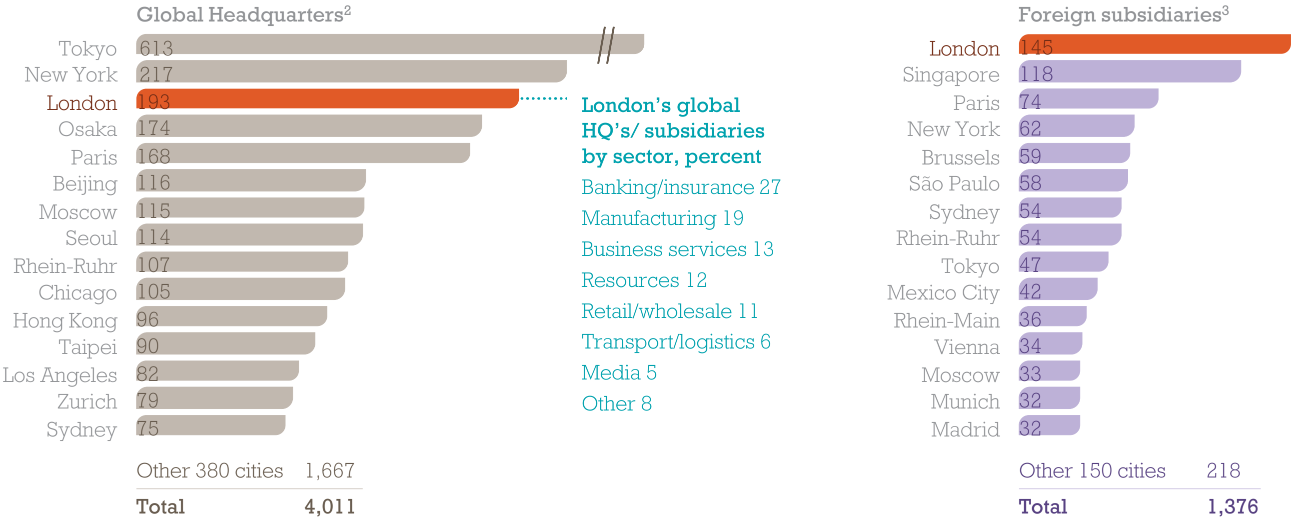
[39] For example, London is ranked: number one in the Global Power City Index; number one in the Knight Frank Global Cities Survey; number one in PwC's Cities of Opportunity index; number two in the A.T. Kearney Global Cities Index; and as one of the world's only two Alpha ++ cities by the Globalization and World Cities Research Network.

[40] IBM, *Global Location Trends, 2013 Annual Report*, 2013

Figure 10

Location of headquarters and subsidiaries

Top cities[1] globally 2010



1 Metros defined as contiguous urban area, not by administrative boundaries
2 Global head office of a company with over $1bn revenue
3 Location of a subsidiary of a company (excluding the head office), where the subsidiary has revenue of over $1bn

SOURCE: McKinsey Large Companies Database; McKinsey Global Institute analysis

Sustaining this strength

There are huge potential opportunities for London if it can maintain its status as the leading global hub for business in an increasingly global world. For example there will be another 7,000 companies with $1 billion revenue or more by 2025 – 68% of whom are expected to come from emerging regions. Each of these represents a potential European, or global, HQ that London should seek to capture.

London's position as the leading global hub for business is underpinned by its stable legal and political environment, its global openness and connectivity, and its position at the heart of Europe's economy. This strength is also deeply intertwined with London's strength in talent: London's talented people attract businesses, and equally London's businesses attract talented people.

That said, London's position as a global hub is not without risk. First, it is at risk from the challenges around immigration and cost that affect London's attractiveness as a destination for talent. Second, business leaders told us that uncertainty about Britain's membership of the European Union could make a fundamental difference to London's attractiveness as an international business capital.

London's membership of the EU has been a critical component of its attractiveness to global business. The EU is London's largest trading partner in both goods and services, and access to the Single Market is one of the reasons international businesses choose to locate here. Looking across the fundamental elements of EU membership, the free movement of goods and capital have supported London's success, and further progress towards the single market in services has potential to enhance London's future growth given the city's strong starting position in services[41].

The free movement of people is more contentious: while London as a whole benefits from talented Europeans coming here to live and work, European migration increases competition in the labour market and this particularly affects lower-skilled Londoners. Giving these Londoners the skills and opportunities to compete successfully for jobs is a key part of this agenda and is discussed in Chapter 8 below.

[41] See for example TheCityUK, *EU Reform, A view from TheCityUK*, November 2014

[42] Deloitte, *Globaltown: Winning London's crucial battle for talent*, 2013

[43] Taylor P.J., *Advanced Producer Service Centres in the World Economy*, 2011

[44] See TheCityUK, *Driving competitiveness: Securing the UK's position as the location of choice for financial and related professional services*, November 2012

In theory, it might be possible to cherry-pick the benefits of EU membership while avoiding the costs. In practice, this is unlikely and it is particularly difficult to see how the UK can drive the further completion of the single market in services, which requires deep institutional co-operation.

THE STRONGEST POSITION IN FINANCIAL AND BUSINESS SERVICES

London is home to world-leading financial and business services sectors. For example London has more employees in both financial and professional services than any other city[42], and has more offices from highly global services firms in law, accountancy and finance than anywhere else (although New York holds the top spot for consultancies and advertising firms)[43].

London's recent GVA and jobs growth has been fuelled by these industries. The financial sector alone was responsible for over 40% of GVA growth from 2000 to 2011 (even taking losses during the crisis into account). Equally over 40% of jobs growth from 2000 to 2013 came from the business services sector. In both cases these are long-term trends, reflecting performance since the comparable data sets began in the mid-1990s [Figures 11-14].

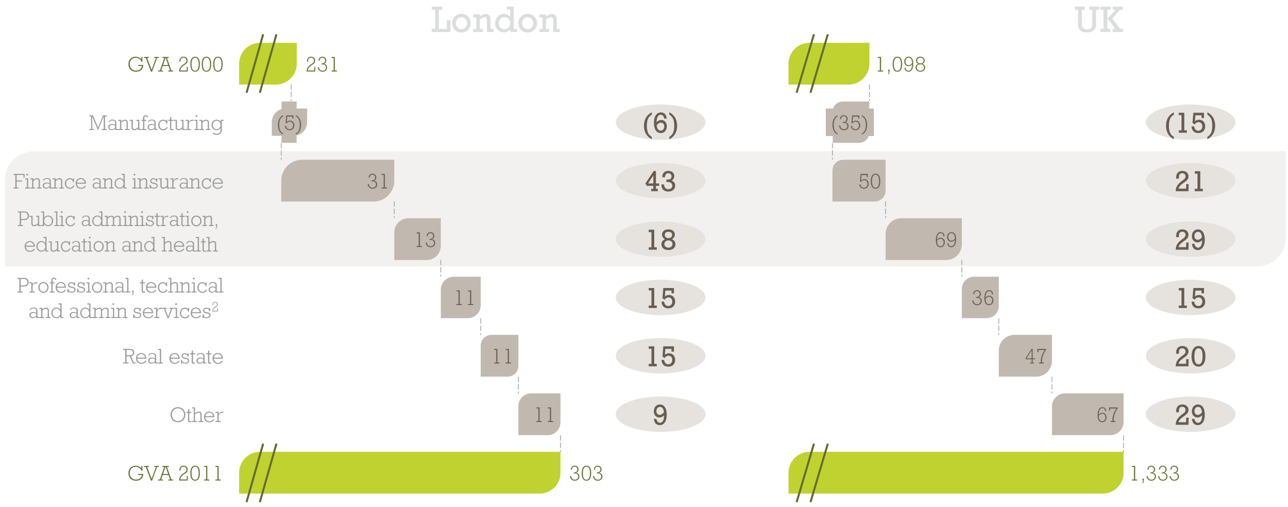
As these data show, the profile of the two sectors' growth has been different. The financial services sector has seen fairly flat employment since 2000, as automation and offshoring have shifted the sector to higher value activities without an accompanying increase in employment[44]. By contrast, the business services sector has been the leading engine of job creation for London.

Figure 11

SOURCES OF GVA GROWTH

Change in real GVA 2000-11 (chained to 2011 prices)[1]
£ billions

x Share of growth, %



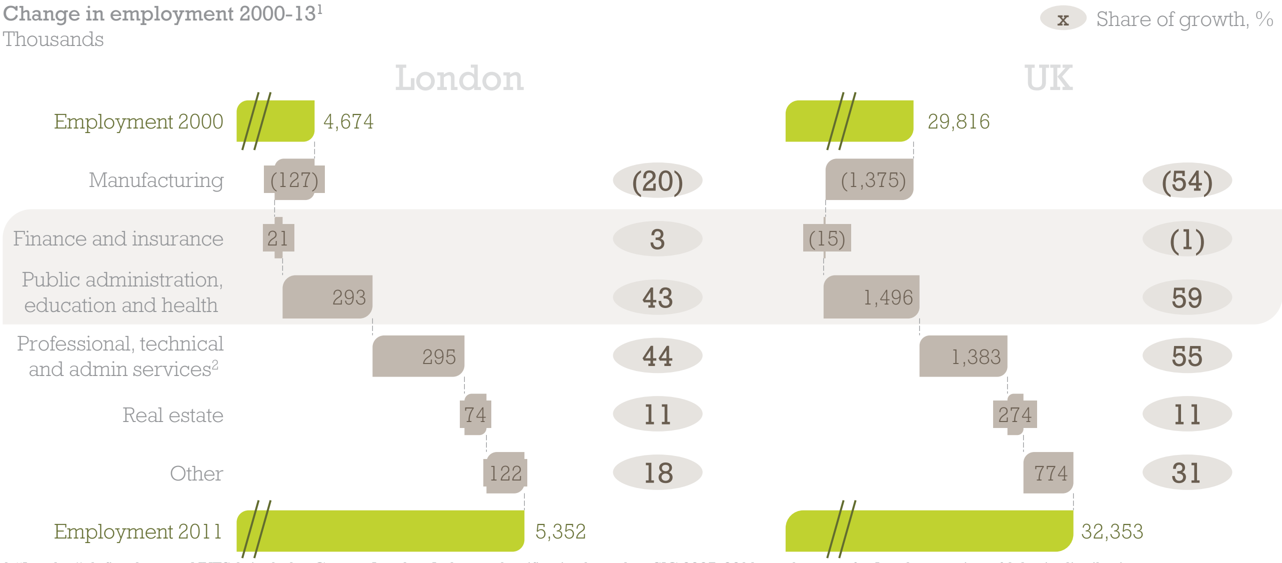
1 GVA chained to 2011 prices (country level deflator used). Based on workplace methodology for allocating to regions. "London" defined as per NUTS 1, includes Greater London. Industry classification based on SIC 2007
2 Includes professional, scientific and technical activities as well as administrative and support service activities

SOURCE: Office of National Statistics 2013; Eurostat; McKinsey analysis

Figure 12

Sources of employment growth

Change in employment 2000-13[1]
Thousands

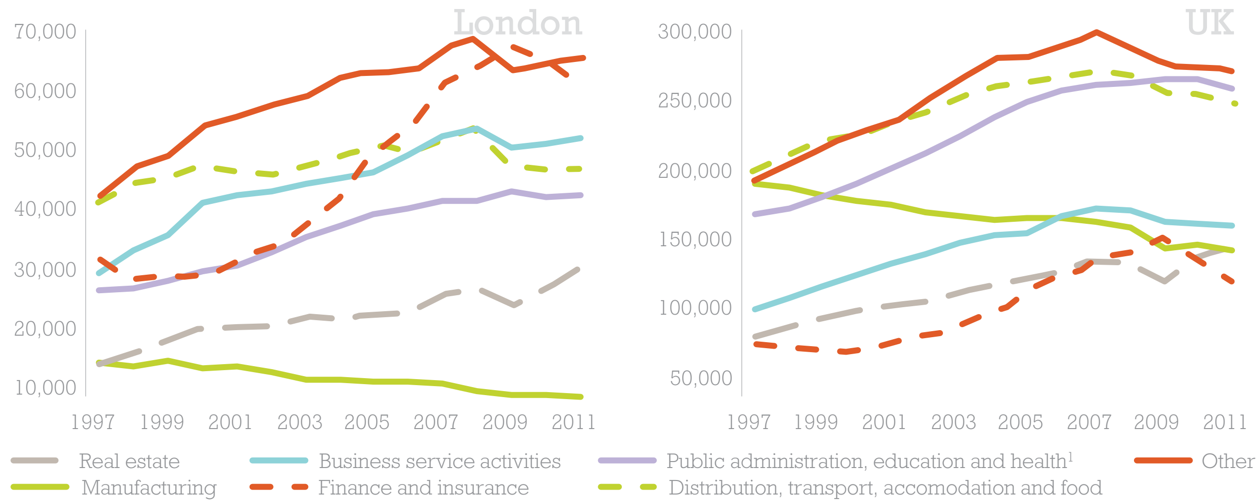


1 "London" defined as per NUTS 1, includes Greater London. Industry classification based on SIC 2007; 2011 employment for London consists of 1.1m in distribution, transport, accommodation and food, 1.1m in business services, 1.1m in public admin, education and health, 400k in information and communication, 400k in finance and insurance, 300k in construction and 600k in other
2 Includes professional, scientific and technical activities as well as administrative and support service activities – for London, 91% of growth driven by professional, scientific and technical activities
SOURCE: Nomis; Workforce Jobs (includes the self-employed, UK total includes the armed forces); McKinsey analysis

Figure 13

GVA growth by sector

GVA 1997- 2011 (chained to 2011 prices)[2]
£ billions

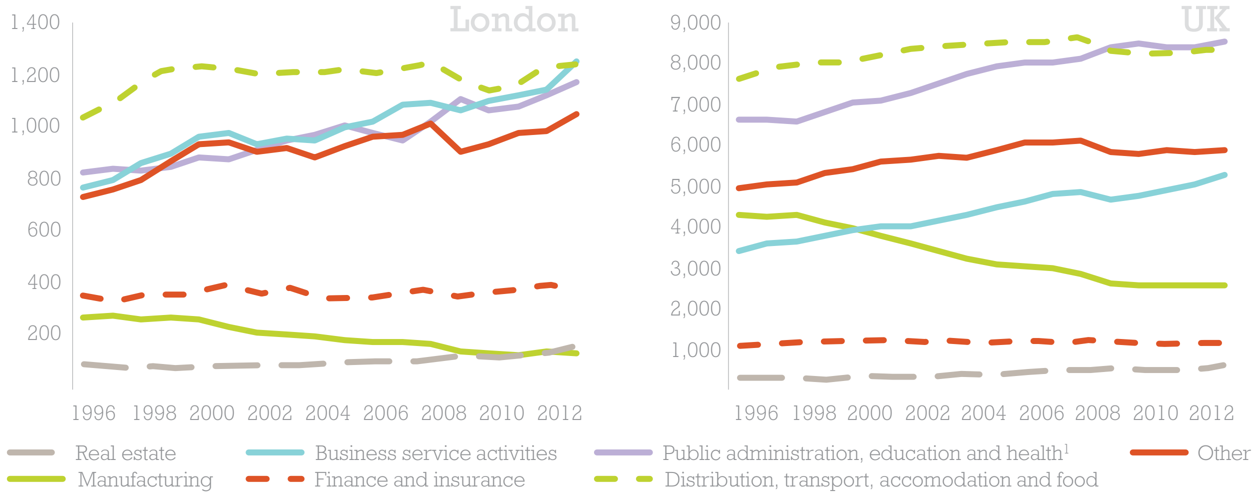


1 Includes professional, scientific and technical activities as well as administrative and support service activities
2 GVA chained to 2011 prices (country level deflator used). Based on workplace methodology for allocating to regions. "London" defined as per NUTS 1, includes Greater London. Industry classification based on SIC 2007
SOURCE: Office of National Statistics 2013; Eurostat; McKinsey analysis

Figure 14

EMPLOYMENT GROWTH BY SECTOR

Employment 1996-2013[2]
Thousands



1 Includes professional, scientific and technical activities and administrative and support service activities – for London, 91% of growth driven by professional, scientific and technical activities
2 "London" defined as per NUTS 1, includes greater London. Industry classification based on SIC 2007; 2011 employment for London consists of: 1.1m in distribution, transport, accommodation and food, 1.1m in business services, 1.1m in public admin, education and health, 400k in information and communication, 400k in finance and insurance, 300k in construction and 600k in other
SOURCE: Nomis, Workforce Jobs (includes the self-employed, UK total includes the armed forces); McKinsey analysis

Sustaining this strength

Financial and business services can be expected to contribute further to London's growth, not least because their large share of London's economy means that the absolute growth they contribute will be critical even if their growth rate slows. Both industries are also well placed to capitalise further on London's growing position as a home for international businesses from new markets, and on further integration of the European market for services.

However, there is a risk that the financial services sector will grow GVA more slowly than it has in the past, as regulatory pressure depresses overall profitability relative to historic norms. London needs to tread a regulatory path that sustains its international competitiveness in the face of growing competition, while also ensuring the stability and health of the sector. Equally importantly, London needs to build other sources of growth as well as financial services, so that the city's overall GVA performance is not over-reliant on any individual sector.

A WORLD-LEADING CENTRE FOR TECHNOLOGY, CREATIVITY AND ENTREPRENEURSHIP

London is far from a financial centre alone: no single sector makes up more than 20% of GVA. After the crisis, GVA and jobs growth have come from a broader set of sectors [Figure 15] with the strongest growth contributions coming from tourism, creative industries and technology. London's position in these areas is already globally competitive. In addition, we believe it is reasonable to expect future growth to be strong in each of these areas, in line with our expectation of increasing numbers of global visitors, continuing technology-fuelled innovation and a growing emphasis on a knowledge-based economy.

A blooming technology sector

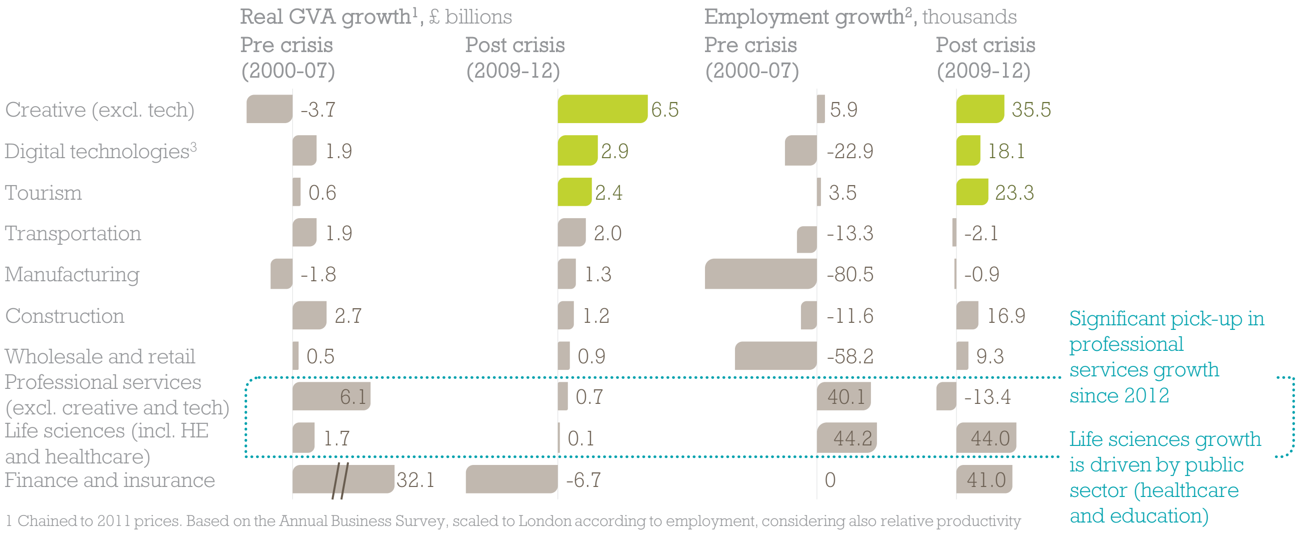
London's technology sector has had a significant impact on recent GDP and employment performance (after a rockier record in the early part of the century recovering from the dotcom bust). The sector has produced many success stories in recent years: for example, the high value sales of DeepMind to Google or the listing at £1.47 billion of Just Eat.

THE GROWTH IN LONDON'S CREATIVE SECTOR SHOULD BE SEEN AS A COMPLEMENT TO LONDON'S POSITION IN TECHNOLOGY. THE LINE BETWEEN THE TECHNOLOGY AND CREATIVE SECTORS IS INCREASINGLY BLURRED, AND EACH SECTOR ACTS AS A CATALYST FOR INNOVATION IN THE OTHER.

Figure 15

Recent growth drivers

Breakdown of London's growth



1 Chained to 2011 prices. Based on the Annual Business Survey, scaled to London according to employment, considering also relative productivity (adjusted at BIC level based on ONS regional GVA data). Regional productivity data only available until 2011, so 2012 assumed to be same as 2011
2 Employment is workplace based, and excludes sole traders and entrepreneurs, except for financial services and real estate
3 Data based on WFJ from ONS, and only available until 2011
Note: Definition of all sectors available in technical appendix

SOURCE: Annual Business Inquiry; Annual Business Survey; Business Register and Employment Survey; ONS; DCMS; GLA; team analysis

However, the contribution of technology to London's growth goes far beyond what can be captured in a traditional sector-based view of London's economy. For example, the technologists working in an insurance company are not picked up in the standard industry codes; thus Figure 15 if anything underestimates the true extent to which technology is driving growth.

Comparing the performance of London's technology cluster to others around the world, two things are clear.

First, London has scale. Recent Bloomberg research confirms two important metrics that demonstrate London does not necessarily need to play second-fiddle to the West Coast of the United States:

- London has approximately 382,000 employees in what the Bloomberg report defines as the technology and information sector, comparing closely with the 411,000 employees in the New York City Metro Area and 397,000 in the San Francisco/San Jose Metro Area (which includes the manufacturing activity housed in Silicon Valley); and
- looking across London, the South-East and East of the UK, the region as a whole has more employees in the technology and information sector than does the state of California, and the number is growing faster[45].

Second, London's technology sector leverages the city's existing strengths. London's strength in technology is not an alternative to its status as a capital for business and talent; the two are feeding off each other. For example, compared to San Francisco, London's technology businesses are significantly more likely to be in digital media, sales and marketing or financial services, and significantly less likely to be in more "pure-tech" sectors such as mobile and video[46]. Equally, London's success in technology depends on its attractiveness to, and openness towards, global talent: 44% of the companies identified as high potential through Tech City's "Future Fifty" group have at least one founder from overseas[47].

London's strength in technology is complemented by its position in science more generally. In particular the life sciences sector also grew employment substantially after the crisis, although within London itself this growth was focused in the public sector (which is unsurprising, given London's high concentration of specialist and teaching hospitals in the public sector and relatively small private sector in life sciences, which accounts for under 1% of GVA).

[45] Liebenau, Jonathan, Mandel, Michael, *London, Digital City on the Rise*, July 2014

[46] McKinsey and Social Genomics analysis of Angellist data

[47] McKinsey analysis of TechCity Future Fifty cohort; see broader UK discussion in Centre for Entrepreneurs and DueDil, *Migrant Entrepreneurs: Building Our Businesses Creating Our Jobs*, March 2014

However, looking beyond the M25 to the South-East region, London sits within a vibrant life sciences cluster stretching to Oxford, Cambridge and elsewhere, with the areas of highest density of life sciences employment lying outside London's boundaries (see discussion in Chapter 6).

London is far from a financial centre alone: no single sector makes up more than 20% of GVA. After the crisis, GVA and jobs growth have come from a broader set of sectors with the strongest growth contributions coming from tourism, creative industries and technology.

A world-leading creative economy

London has a thriving creative economy, again supported by some of the world's best talent. As a whole, this sector was the largest contributor to London's GVA growth in 2009-12 (although this partly reflects a bounce-back from previous losses in what has been a volatile period for the creative industries). Growth since 2009 has been driven largely by film and broadcasting (a 47% increase in GVA over the period), and advertising and marketing (an 86% increase in GVA over the period).

Again, this sector-based view tends to under-estimate the true impact of creative employment because not all creative roles are captured by standard industry codes, for example in-house advertising roles in firms that are not themselves part of the creative sector. These roles are also growing fast – with creative employment outside the creative sector growing at over 10% in the year from 2012 to 2013[48].

The growth in London's creative sector should be seen as a complement to London's position in technology. The line between the technology and creative sectors is increasingly blurred, and each sector acts as a catalyst for innovation in the other. Much of the creative growth in London is rightly viewed as part of its technical strength too – for example London excels in the fast-growing digital advertising market and cutting edge film post-production[49].

A leading centre for entrepreneurship

It is hard to measure the size of entrepreneurial clusters – not least because different cities and countries record business formation and growth differently. In **Figure 16** we take venture capital seed funding as a proxy for the strength of a city's entrepreneurial community. This proxy is probably biased towards US locations given the deeper venture capital market there. However, on this measure London is Europe's leading start-up hub and is a strong global contender, lagging only New York and San Francisco.

Looking more broadly at the contribution of smaller businesses to London's economy, companies employing fewer than 250 people provide half of London's employment and 45% of annual turnover [Figure 17], which means SMEs are as important to London's economy as they are to the UK's as a whole. Smaller businesses are represented across every sector, with the highest number of SME employees in professional and technical services, administration services and financial services – reflecting some of London's core strengths in these areas.

These smaller businesses benefit from and contribute to the agglomeration effect of London, working as a part of an ecosystem where clusters of businesses of different sizes work alongside each other to the benefit of all.

Sustaining this strength

We expect growth in both the technology and creative sectors to remain strong: London already has critical mass and has demonstrated that its strengths in culture, talent and broader business and finance can be complementary to its position as a technical, creative and entrepreneurial hub.

However, we note that the academic literature in this area finds that while cities with strong entrepreneurial foundations grow faster, they do so not through the ongoing replication of small businesses but rather through retaining employment growth in those establishments that ultimately become large[50]. Therefore London needs to be an attractive place not only to start up new businesses, but also to scale them up. This is reflected in the recent **Scale-Up Report on UK Economic Growth** which identifies a potential opportunity across the country of 150,000 net jobs and £225 billion additional GVA by 2034[51].

London's entrepreneurs have told us there are three key risks to London's performance in scaling businesses up.

[48] Department for Culture, Media and Sport, *Creative Industries: Focus on Employment*, June 2014

[49] See discussion in Foord, Jo, *The New Boomtown? Creative City to Tech City in East London*, 2012

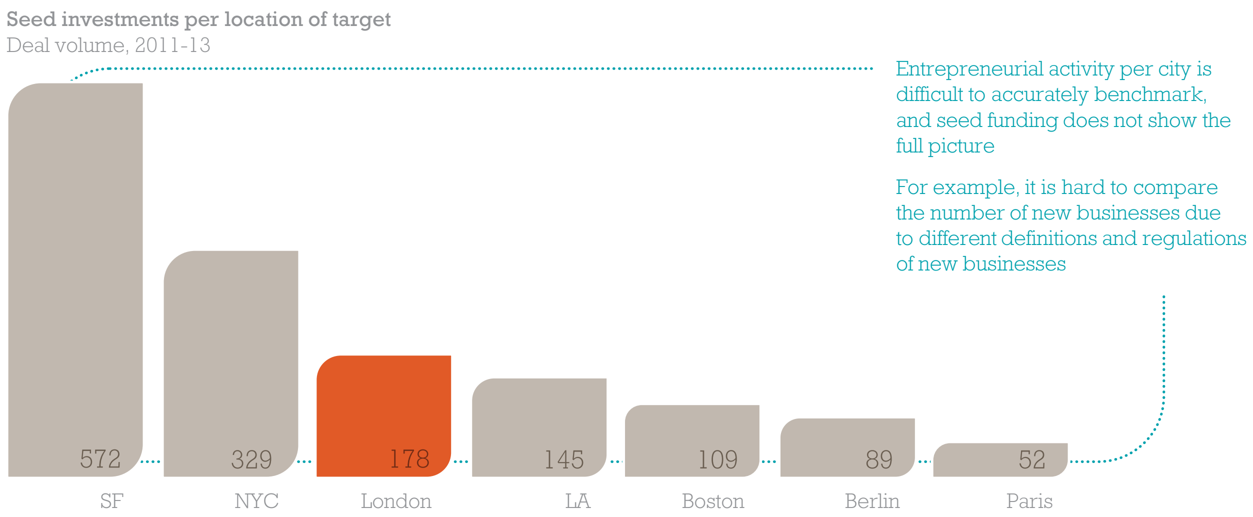
[50] See, for example, Glaeser, Kerr & Kerr, *Entrepreneurship and urban growth; An Empirical Assessment with Historical Mines*, NBER Working Paper No. 18333, August 2012

[51] Coutu, Sherry, *The Scale-Up Report on UK Economic Growth*, November 2014

Figure 16

START-UP FUNDING COMPARISON

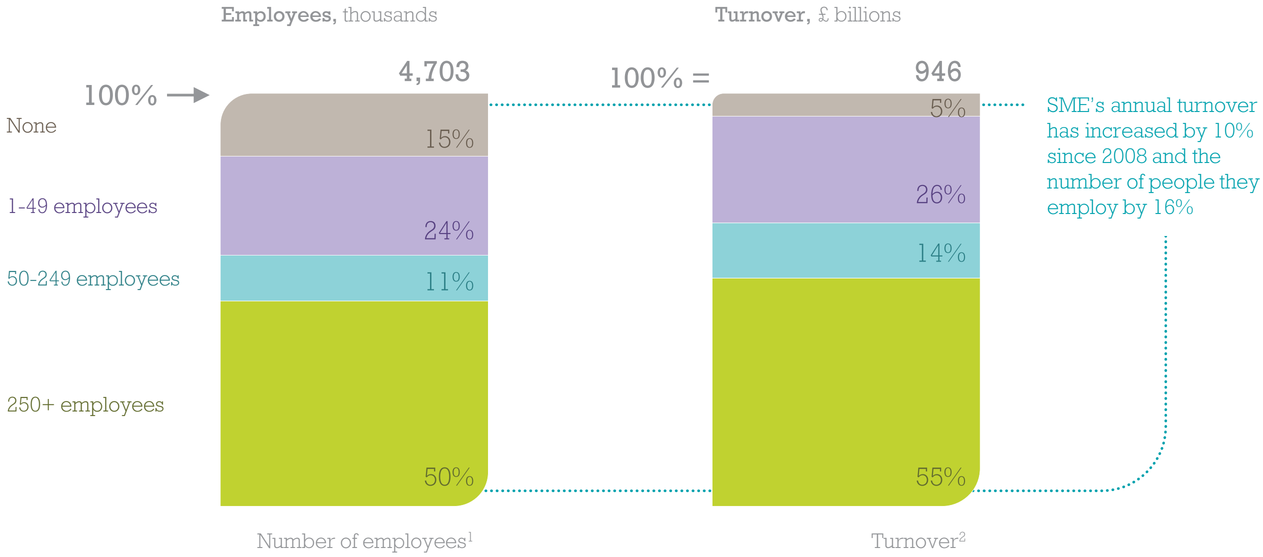
Seed funding in London and peer cities



SOURCE: Capital IQ; team analysis

Figure 17

SME'S ROLE IN LONDON



1 Represents people employed in London, not employed by London-based businesses
2 Excludes financial and insurance activities

SOURCE: Department for Business, Innovation and Skills, Business population estimates for the UK and regions 2013; SME Statistics for the UK and the regions 2008

First, London faces skills gaps broadly in STEM and more narrowly in specific tech-related skills such as coding. Across the UK 94% of businesses in innovative sectors say it is extremely or somewhat challenging to find the talent they need to grow[52], and in London specifically a 2013 survey of Tech City's then 1,350 businesses identified the shortage of skilled workers in the jobs market as the biggest single challenge to growth[53]. Nearly 80% said they could grow faster if there were more people available with specialised digital and technology skills like coders, developers and usability specialists. The skills in highest demand are shown in Figure 18. This gap in particular technical skills reflects a broader UK-wide challenge in the overall level of STEM skills. For example the CBI reports that on a UK-wide basis companies in the science, engineering and IT sectors are much less likely to have confidence in accessing the skills they need than any other sector except manufacturing[54].

Second, growing businesses face high costs in a competitive city like London. The cost of office space is to some extent a natural consequence of operating in a high-competition, high-cost location like London and is not a problem that can be "solved". A natural part of the cycle for new sectors is that innovative firms enter new low-cost locations and make them into attractive hubs, thus pushing up costs and moving the next wave of entrants on to new lower-cost locations. London has a large variety of office locations with a range of costs, and plenty of opportunities to retain innovative firms in the broader city through these growth cycles. In addition London is already experiencing an explosion in private-sector-led shared-space initiatives to help entrepreneurs find appropriate space. However, managing growing transport and housing requirements for the city as a whole, and in a way that does not simply repurpose commercial space into residential space, will be a critical element of supporting London's status as great place to grow a business.

Third, London businesses report challenges in accessing funding for growth. Bank funding for SMEs has declined significantly since the crisis, and equity funding is not yet filling the gap for high-growth firms.

High-growth, innovative firms often have uncertain future cash flows and limited collateral, with much of their investment being in human not physical capital. They are much more likely to use equity-based financing of one sort or another than the average small company. The UK has been less strong in equity financing than the US for a long time: for example, banks drive only 19% of external long-term financing in the US, compared to over 80% in the UK[55]. The crisis has exacerbated the situation for firms seeking funding to grow: for example, GLA analysis of the

[52] Silicon Valley Bank, *Innovation Economy Outlook UK 2014*, 2014

[53] GfK, *Tech City Futures Report*, May 2013

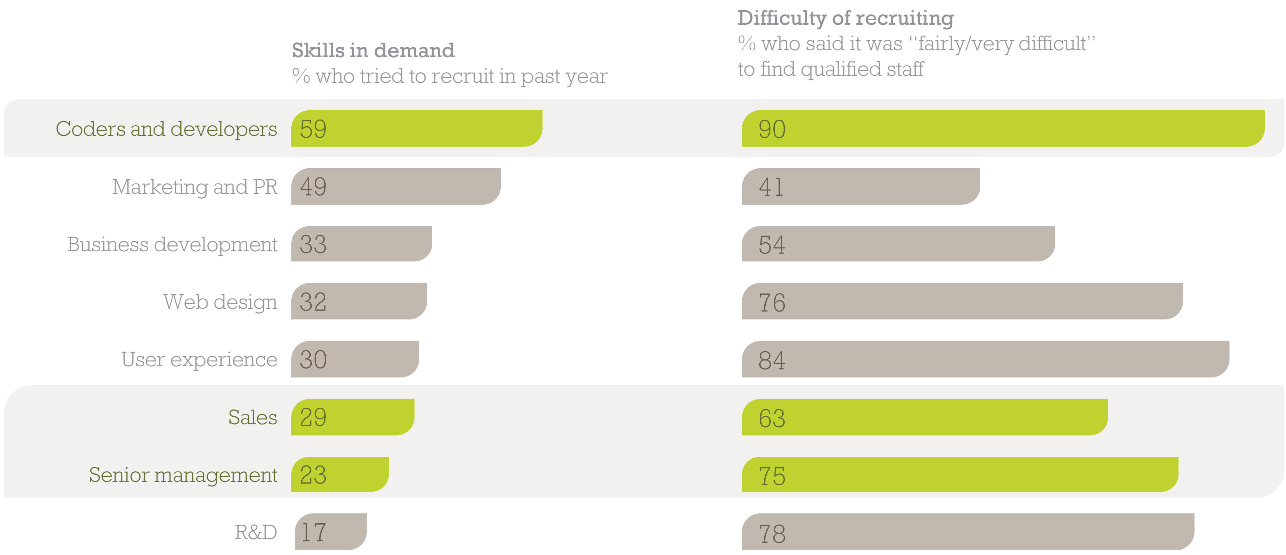
[54] CBI, *Gateway to Growth, CBI/Pearson Education and Skills Survey 2014*, July 2014

[55] TheCityUK, *Alternative finance for SMEs and mid-market companies*, October 2013

Figure 18

TECH SKILLS SHORTAGES

Survey of London tech entrepreneurs
2013



SOURCE: GfK; team analysis

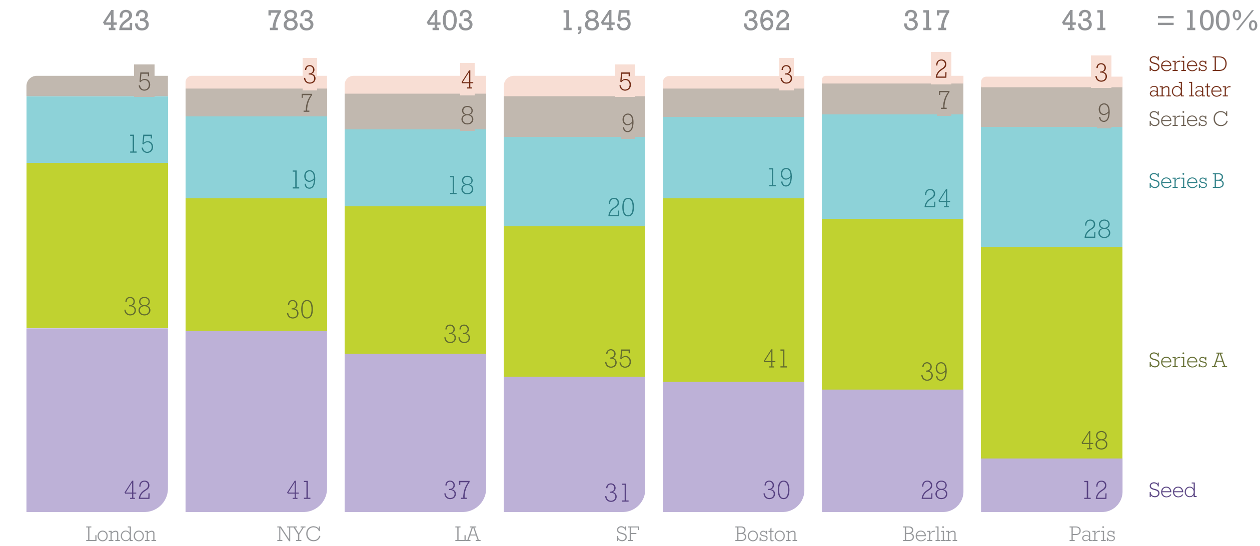
Small Business Survey results from 2008-2012 found that innovative firms now find it harder than the average business to access finance[56], while UK SME financing shifted during the crisis away from firms with high growth potential and towards larger firms with high levels of collateral[57].

The funding challenge is particularly acute for investment opportunities that are too large to be of interest to London's large population of individual angel investors, but too small to allow listing on AIM given the fixed costs of listing. This funding challenge for growing firms is, to some extent, reflected in international comparisons. For example, only 20% of venture capital deals in London go to Series B or later, compared to 28% in New York and 34% in San Francisco [Figure 19].

Figure 19

VC FUNDING BY CITY

Number of VC deals by location of target[1], %
2011-13



1 Totals include all announced VC deals, but breakdown includes only deals where funding round is disclosed, representing between 36% and 70% of total deals

SOURCE: Capital IQ; team analysis

THE GLOBAL CAPITAL FOR INTERNATIONAL TOURISM

London has more international overnight visitors, and attracts more spend from them, than any other city in the world[58]. Tourism today represents over £9 billion in GVA and 200,000 jobs across London; the sector has seen its GVA contribution grow at an annual rate of 11% since 2009, and its total employment grow at 4% annually over the same period, in part as a result of the success of the London 2012 Olympic Games. This expansion has been driven largely by growth in the spending of international, rather than domestic, tourists, with the majority of international visitors coming from Europe today. Business tourism also makes up a significant part of the sector: in 2012 business tourism accounted for 18 per cent of visitors and nearly 26 per cent of tourist spend[59]. Tourism is a particularly important economic opportunity for London because the sector drives strong growth in relatively accessible jobs that can help address employment challenges for Londoners in the context of an economy that is shifting to higher productivity overall.

Sustaining this strength

Globally, there is every reason to expect strong tourism growth to continue: the number of international tourists is expected to double by 2036, driven by continued growth from European countries, especially Eastern Europe, and by Asian countries reaching income thresholds where international travel expands significantly[60]. London is in a strong position to capitalise on this growth – though as we discussed in Chapter 3 there are weaknesses that should be addressed, for example in attracting Chinese tourists who are much more likely to visit Paris than London.

[56] Greater London Authority, *SME Finance in London*, November 2013

[57] Cowling, Marc and Liu, Weixi, *Business Growth, Access to Finance, and Performance Outcomes in the Recession*, 2011

[58] Mastercard, *2014 Global Destination Cities Index*, 2014

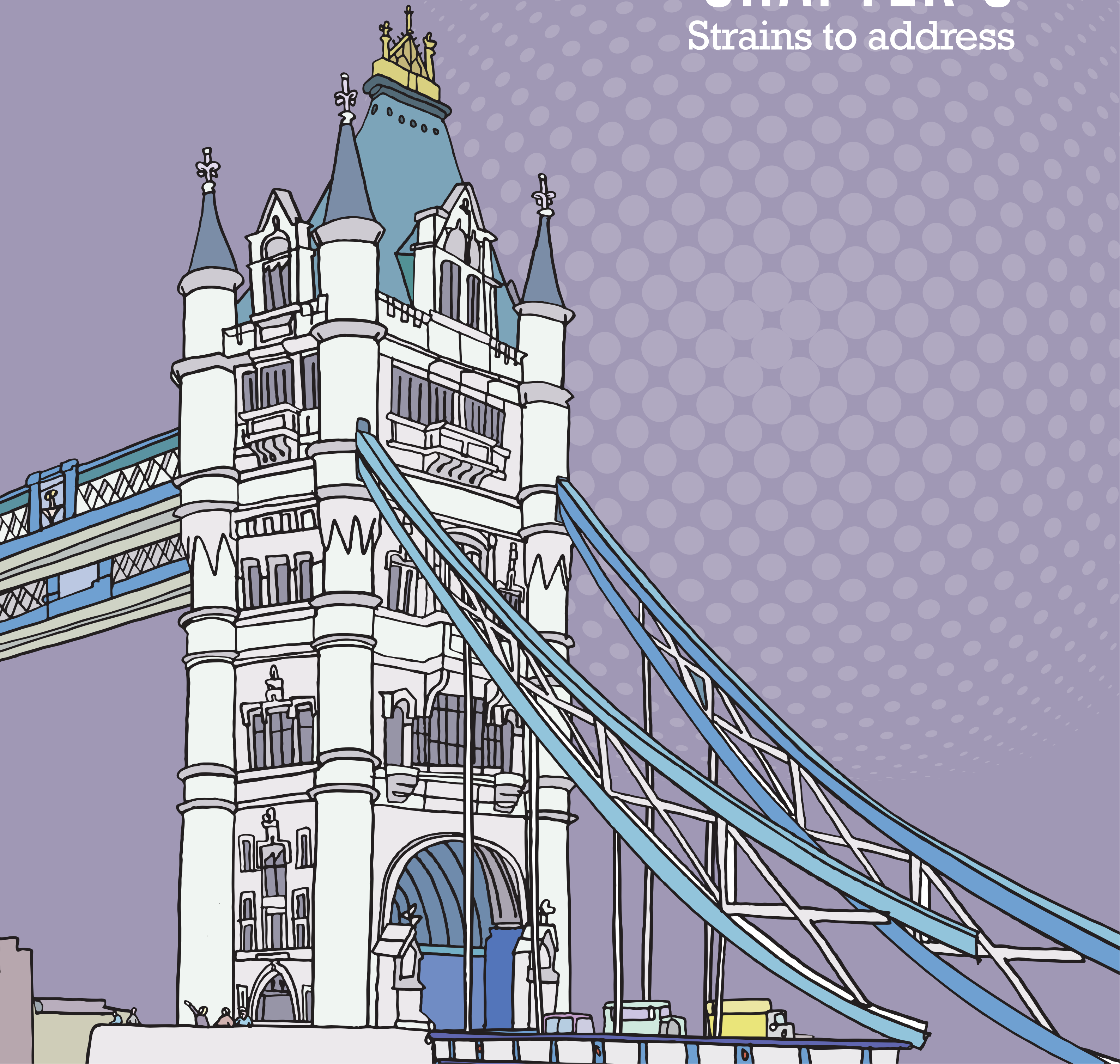
[59] Greater London Authority, *Working Paper 53: Tourism in London*, May 2012

[60] World Tourism Organization, *Tourism Towards 2030: Global Overview*, October 2011

IMPLICATIONS FOR LONDON'S ECONOMIC PRIORITIES

- London has already established a unique position as the global hub for talent, business, finance and global visitors, however this could be put at risk by national policy on both immigration and Europe.
- London has an opportunity to establish itself as a global capital for technology, creativity and entrepreneurship, but to gain maximum economic benefit it needs to address the gaps in skills and funding that make it challenging for businesses to grow.

CHAPTER 5
Strains to address



London's population is projected to grow to over 10 million by 2036, creating a large gap in the basic foundations of the city. There will be a need for at least 50,000 additional homes a year and an increase of more than 50% in trips by public transport if this growth is to be successfully accommodated.

Sitting alongside the strengths that London needs to sustain and enhance are economic weaknesses that need to be tackled. Many of these are, in part at least, consequences of London's success, which has pushed up the city's population, driven up costs and led to an intensely competitive labour market. London cannot rely on driving further growth to fix these challenges automatically. The following weaknesses need to be addressed head on:

- London has **a large infrastructure gap across multiple areas**, with weaknesses in housing and transport that are worsened by fast population growth, coupled with slow progress on infrastructure priorities that businesses see as critical to future performance, particularly international and digital connectivity;
- London faces **poor levels of inclusion**, as lower-skilled workers compete in a highly-competitive labour market; face rising living costs (particularly in housing); and see increasing automation and international competition further shrinking the pool of lower-skilled jobs;
- London has seen **uneven development across the city**: the challenges of inclusion are particularly concentrated in some parts of the city and economic growth has been notably slower in the outer London "doughnut" than in the central business district; and
- London has **limited capacity to invest and deliver**, as London has much lower fiscal and political autonomy than other great international cities.

Each of these weaknesses is discussed below. The potential priorities to address these weaknesses are explored in more detail in Chapter 8.

A LARGE INFRASTRUCTURE GAP ACROSS MULTIPLE AREAS

London's population is projected to grow to over 10 million people by 2036, creating a large gap in the basic foundations of the city. There will be a need for at least 50,000 additional homes a year and an increase of more than 50% in trips by public transport if this growth is to be successfully accommodated[61]. The London Infrastructure Plan 2050 (which is due to be published in Spring 2015) identifies a broad range of infrastructure priorities to address this challenge, with a total bill of over £1 trillion.

Within this list of overall infrastructure priorities, businesses rank transport as their top concern (both domestic and international connectivity), followed by digital infrastructure[62]. Housing is the fastest rising concern for businesses, and today 73% of London's businesses think London's housing supply and costs are a significant risk to the capital's economic growth[63].

Each of these areas is discussed below. Of course they are not independent of each other – in particular the transport needs of the South-East need to be integrated with London's, and housing requirements need to be integrated with transport development.

Transport across London and the South-East

Effective transportation is critical to the core strength of London and the South-East as a place where many economic opportunities exist in close proximity to each other. London and the South-East's ever-expanding transport needs are well-documented and significant improvements have recently been made. The London Infrastructure Plan 2050 consultation identifies a number of gaps to fill: for example, additional rail and Tube capacity to cope with a growing population, as well as new road and rail links to improve connectivity to areas of new housing and jobs growth both inside and outside London.

These transport improvements matter to economic growth. They support jobs growth in existing high employment areas by improving commuter access (whether through increased speed, reliability or comfort) and they support jobs growth in new areas by connecting them to the wider economy (for example, in the residential services economy surrounding newly viable areas of commuter housing). The economic impact at stake is large. For example, today around 1.17m people travel into London's central activity zone each day on services that are close to, or over, capacity in most cases. Assuming this number grew 18% to 2036 in line with London's population projections, over 200,000 jobs would be at stake from not having the transport in place to support commuter growth.

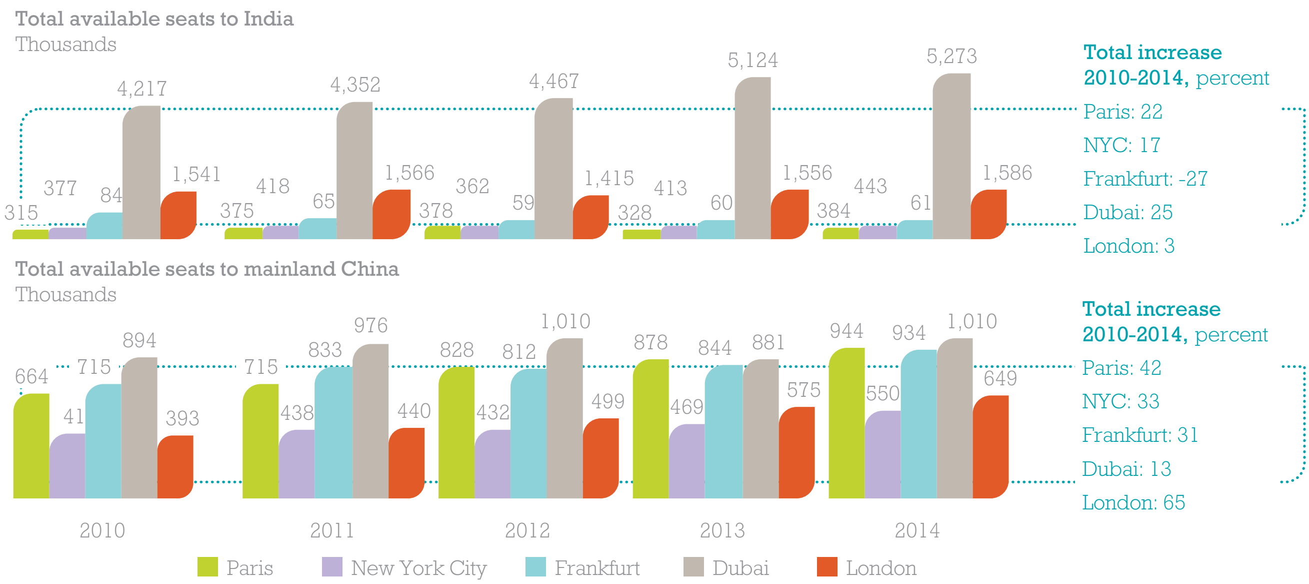
[61] Greater London Authority, *Long Term Infrastructure Investment Plan for London: A Consultation*, October 2014

[62] CBI, *London business survey*, October 2013

[63] London First/Turner & Townsend, *Moving Out, How London's Housing Shortage is Threatening the Capital's Competitiveness*, September 2014

Figure 20

AIR CAPACITY TO EMERGING MARKETS



Note: Airports included: Paris – Charles De Gaulle, Orly; NYC – Newark, JFK, La Guardia; London – Heathrow, London City Airport, Gatwick and Stansted

SOURCE: Diio Mi

We have not sought in this document to outline the specific domestic transport projects that are needed to drive growth. The substantial projects that will be in place by 2036 are already in plan, and in Transport for London the city has an effective authority to turn plans into delivery. The critical issue, which is discussed in more detail below, is making sure sufficient funding is in place.

International connectivity

The UK as a whole and London in particular have been debating the best solution to increasing runway capacity in the South-East for decades, with no action. The most recent iteration has been the creation by the Government of the independent Airports Commission, which has determined that the South-East needs a new runway to support growth. Our analysis of London's role as a global economic hub further underlines the need for efficient access to both established and emerging markets.

Looking at emerging markets specifically, and taking China as an example, London is much more poorly connected to mainland China than are Paris, Frankfurt or Dubai, although recent growth has seen it overtake New York [Figure 20]. This is a challenge for London as a city which seeks to deepen its connections with the Chinese market, particularly given how much of Chinese growth is coming from second-tier cities (Tianjin, Guangzhou, Shenzhen and Chongqing are all expected to be in the world's top ten cities for speed of GVA growth between now and 2025[64]).

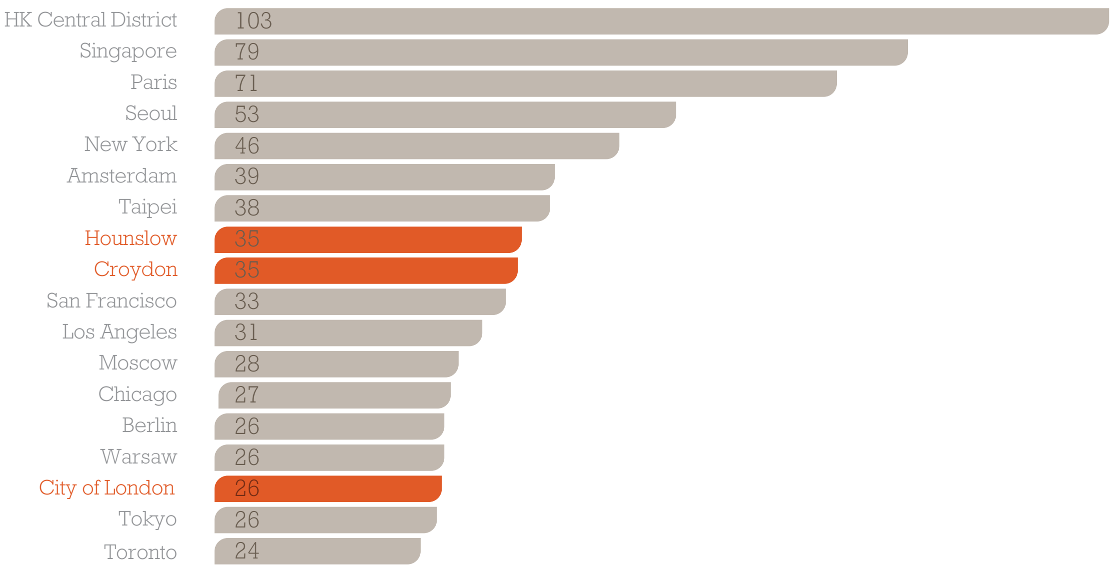
A new runway will not solve this challenge on its own: the gap is driven as much by a lack of demand as a lack of capacity. However by 2036 capacity is likely to be a clear constraining factor because of the pace at which London's airports are filling up. Given the time it will take to build a new runway, London is already late to act.

[64] McKinsey Global Institute, *Urban world: Cities and the rise of the consuming class*, June 2012

Figure 21

BROADBAND SPEEDS BY CITY AND SAMPLE LONDON AREAS

Download speeds, September 2014
000 kbps



SOURCE: Ookla speed test data, based on estimated user locations

Digital connectivity

Some aspects of London's digital connectivity are very strong. Access to high-speed Ethernet connections is universal for businesses that are prepared to pay for them. Broadband quality and reliability are among the best in the world (for example, London is rated on a par with Seoul for the quality of broadband connections[65]). Costs are low – with the cheapest standard broadband connections priced at less than £5 a month as part of bundled services.

Looking at the speed of broadband, parts of London appear to perform poorly [Figure 21]. However this comparison is based on the speed of the products people have chosen to buy, rather than the fastest speeds available. So, such comparisons reflect that many Londoners choose not to pay for faster connections. This is reflected in the take-up rate of superfast[66] broadband across London which is 27% of fixed connections[67] while this service is available to 89% of premises[68]. This analysis reflects the usage of consumers and some SMEs, not larger businesses who typically have faster Ethernet connections.

This raises two issues. The first is whether we should be concerned over the aggregate take-up rate when consumers have a choice and are choosing not to pay to upgrade their speed.

The second is that just over 10% of premises cannot access superfast broadband and these "not spots" are particularly prevalent in the City of London and Tech City – areas where there are significant number of SMEs who need fast connections but find the cost and waiting time for an Ethernet connection prohibitive[69].

Plugging this gap in provision could have significant economic consequences. A rapidly rising number of UK firms see broadband and mobile broadband as vital to their future success (85% say broadband is very important or crucial in 2013 up from 78% in 2012[70]) and these services are particularly critical for high-growth technology firms. In addition, historic evidence suggests strong returns from digital investment in the past (for example, doubling broadband speed increased GDP by 0.3% on average in OECD nations from 2008 to 10)[71], although of course this may or may not apply to further speed increases beyond current levels.

[65] See Ookla comparisons of broadband quality, as summarised in PWC, *Cities of Opportunity 6*, 2014

[66] Defined by Ofcom as greater than 30 Mbps

[67] As quoted in *BT response to the GLA consultation on the London Infrastructure Plan 2050*

[68] See Ofcom UK Fixed Broadband Data 2013, available at http://maps.ofcom.org.uk/broadband/broadband-data/

[69] See CEBR, *The Landline Tax and other unnecessary costs on London households and businesses using fixed line broadband services*, June 2014

[70] CBI, *Connect more: CBI/KPMG infrastructure survey 2013*, September 2013

[71] Rohman, I.K and Bohlin.E, *Does Broadband Speed Really Matter As a Driver of Economic Growth? Investigating OECD countries*, Int. Journal of Management and Network Economics, 2(4), 336-356, 2012

Housing

Over the last ten years, London has completed new homes at a rate of around 25,000 per year[72]. In order to accommodate projected increases in population London needs to be delivering 50,000 or more completed homes each year. There is limited scope to improve supply by either filling empty homes (less than one per cent of London's homes are empty today) or shifting space from commercial use, which risks simply pushing the problem over to business costs. While new home construction is picking up with the economic cycle, reaching 50,000 new homes each year remains a challenge.

House price increases have already dramatically outstripped increases in Londoners' annual incomes. Median London house prices in 2013 were over nine times median London earnings, compared to about four times in 1997[73]. The trend was temporarily slowed by the crisis but rises have continued: average London house prices in July 2014 were nearly 40% above the pre-crisis peak in 2008[74]. This is an economic risk to London since it reduces the city's ability to attract talented people, particularly in relatively lower-paying fields such as creative work and scientific research. Further rises in prices put businesses' ability to attract and retain talented employees at ever-greater risk. For example, 49% of London employees say they would likely consider moving out of London if house prices and rents continue to increase at current rates[75].

House prices in London are in part a reflection of the city's desirability as a place to live and to invest. However, in part they are a reflection of a long period of under-building that means there are constraints on supply.

POOR LEVELS OF INCLUSION

Although top talent is a key strength, lower-skilled workers are not benefiting significantly from London's growth today and London faces challenges from both unemployment and in-work poverty. Despite recent improvements, London has the highest youth unemployment rate outside the North-East and an unemployment rate above the UK average. Meanwhile, the number of people in in-work poverty[76] increased by 440,000 over the last decade: 57% of Londoners in poverty are now in working families. Overall London has 28% of people living in a low-income household[77] compared to 21% in the rest of England, after housing costs are taken into account. The largest group of low-income households are renting privately (39%) and this group is growing[78].

The challenges of unemployment and in-work poverty are to some extent the product of London's economic growth. The flip-side of London's success in attracting national and international talent is a highly competitive labour market with large numbers of people from the rest of the UK, Europe and the world competing for jobs, many of whom are highly-qualified for the jobs they are willing to take. So despite London having the strongest state schools of any region in the UK, some Londoners find it hard to take advantage of the employment opportunities London creates.

Low-income workers are also affected most strongly by another side effect of London's success – London's rising housing costs. Lower-income workers are particularly affected by increases in rent and declines in affordable options because high commuting distances and costs are not easily combined with low-paying jobs [Figure 22].

The strains of success that London has already seen are likely to increase as the economy shifts ever further towards high-skill employment. For example, Deloitte estimates that nearly one in three of London's jobs is at high risk of being made redundant by technology in the next 10 to 20 years, and low-paid jobs are at far greater risk than high-paid jobs[79].

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[72] See, for example, Molior's report to the GLA: *Barriers to Housing Delivery- Update: Private Sector Housing Development on Larger Sites in London*, July 2014

[73] See *London Datastore, Ratio of House Prices to Earnings by Borough*

[74] ONS, *Trends in the United Kingdom Housing Market*, 2014

[75] London First/Turner & Townsend, *Moving Out, How London's Housing Shortage is Threatening the Capital's Competitiveness*, September 2014

[76] Defined as people living in low income households despite having at least one member of the household being in work

[77] Defined as households with a net household income that is less than 60% of the national median income

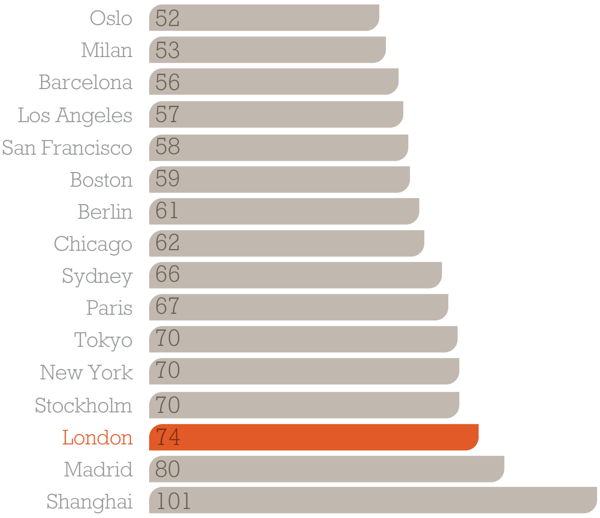
[78] Aldridge et al, *London's Poverty Profile 2013*, 2013

[79] Deloitte, *Agiletown: the relentless march of technology and London's response*, 2014

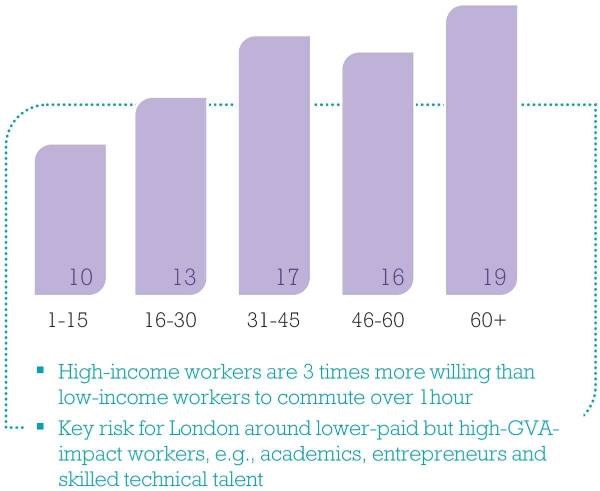
Figure 22

Commuting

Daily commuting time by city
Average trip to and from work, 2010, minutes[1]



Willingness to commute by hourly income
Median hourly income by travel time (one way), 2009, minutes /£



1 Sydney: 2012, U.S. & Tokyo: 2011, Canada & Shanghai: 2010, Europe: 2009

SOURCE: Scorecard on Prosperity, Toronto Board of Trade, 2014; Labour Force Survey, ONS, 2009

This poor performance on inclusion puts economic growth at risk – first because unemployed (or underemployed) Londoners represent missed opportunities for the economy to grow; and second because London will need to maintain social cohesion in order to remain an open, liberal city that attracts people and investment from around the world.

Uneven development across the city

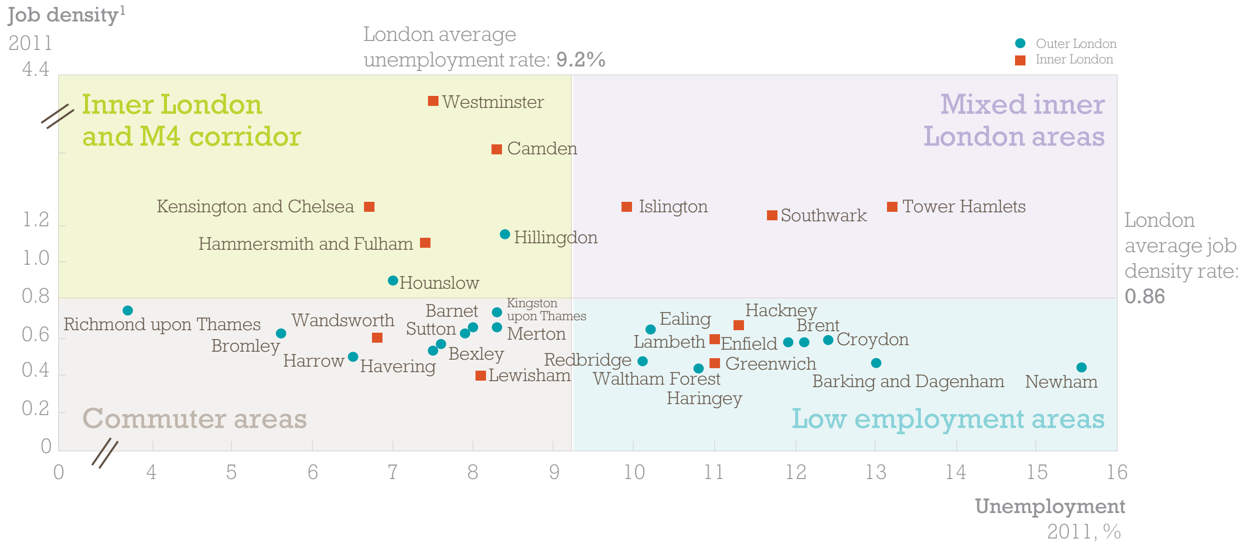
The challenge of inclusion is not uniform across London. There are pockets where the challenges are more intense – particularly in areas with high concentrations of relatively low-skilled workers and high levels of social housing. This reflects the fact that there is no single story to describe London's economic development; rather, London is a patchwork of prosperous and deprived areas, sitting cheek-by-jowl, each with its own economic make up. There is enormous variation in economic performance between boroughs, but also at an even more granular level within individual boroughs. To give a flavour of the level of variation across London, in **Figures 23 and 24** we illustrate the variety of economic performance by borough.

Figure 23 shows that on the one hand there are boroughs (typically in inner London and the M4 corridor, for example Kensington and Chelsea and Hammersmith and Fulham) which have strong local job creation and correspondingly low unemployment rates: indeed they typically import workers from the rest of London. Equally successful are London's core commuter areas (like Richmond and Bromley) – which have significantly lower jobs density but high employment rates because local people use strong transport links to commute to other parts of the city for work.

Figure 23

LONDON'S BOROUGHS BY JOBS AND UNEMPLOYMENT

Jobs growth, unemployment and proportion of employees who commute from outside of London's borders



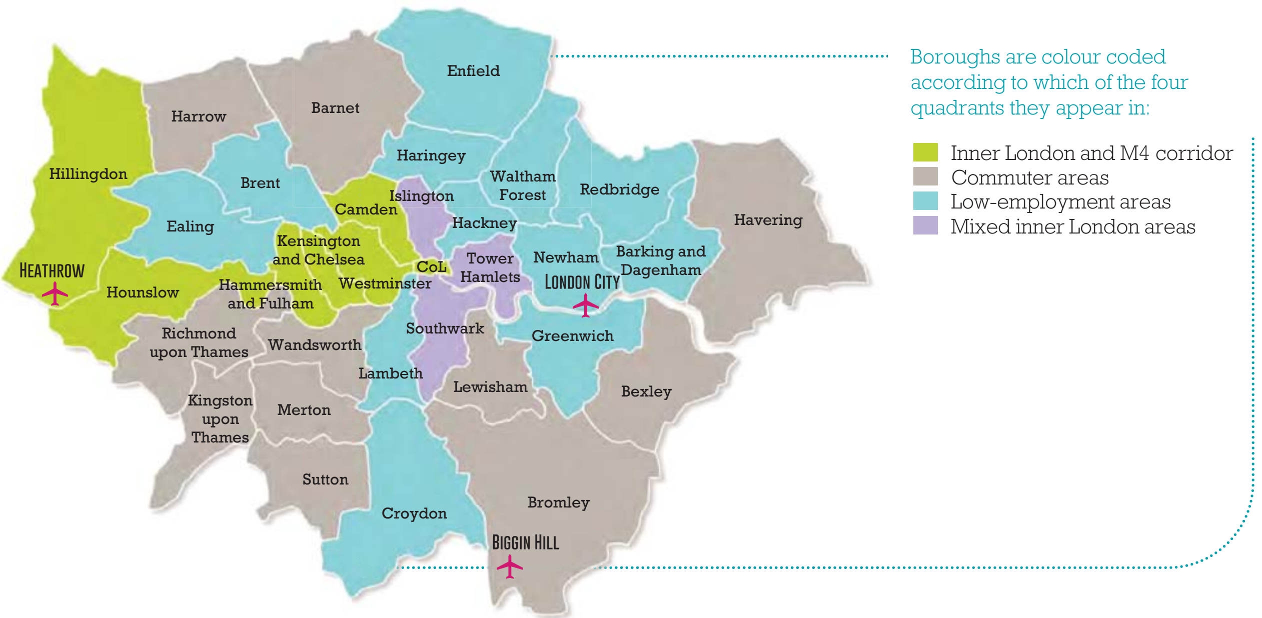
1 Number of filled jobs in an area divided by the number of working age people resident in that area

SOURCE: Census; Labour Force Survey; Hackney unemployment figure from A Profile Of Hackey, it's people and place, LB Hackney, 2013; Annual Population Survey commuter flows, local authorities in Great Britain, 2010 and 2011

Figure 24

LONDON'S BOROUGHS BY JOBS AND UNEMPLOYMENT

Map of the clusters of boroughs across London



SOURCE: Team analysis

On the other hand, London has areas of real deprivation. First, there are mixed inner London areas that despite having many jobs in some parts of the borough still have high unemployment (for example, Tower Hamlets and Southwark). These are areas where greater focus is needed to help local residents access and compete for jobs. Second, there are the boroughs that face both high unemployment and a lack of local jobs (for example Barking and Dagenham). The question for these areas is how to improve housing, transport and residential services together, to improve the integration of the local economy with the city as a whole.

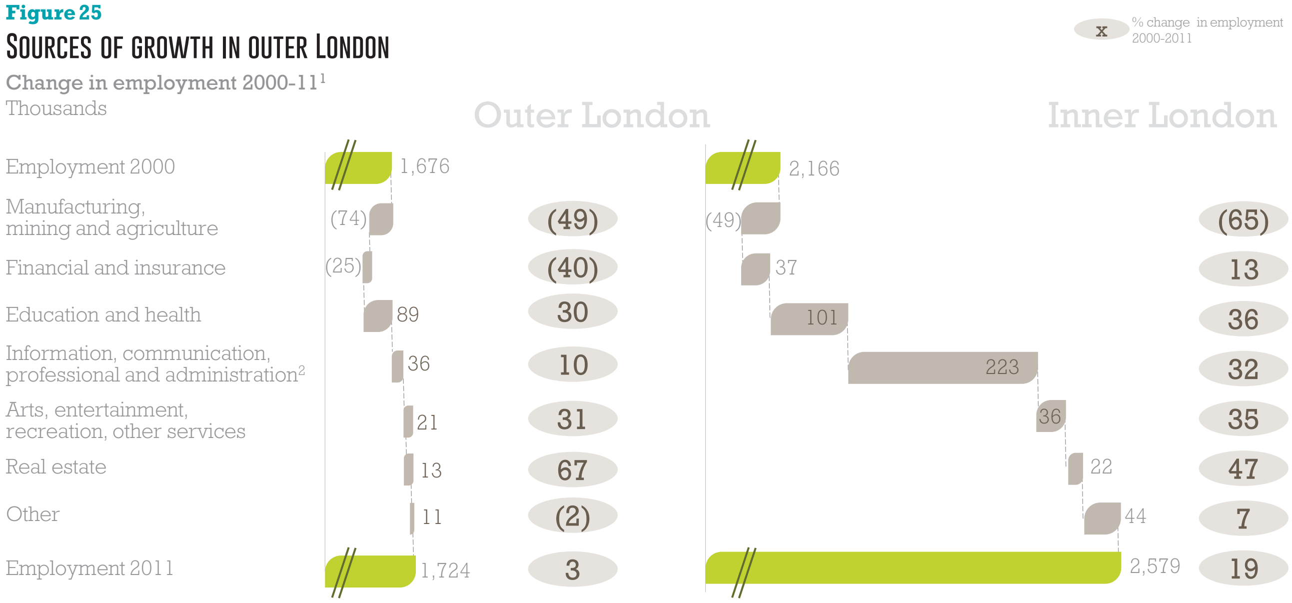
In looking at how to improve economic performance in historically challenging areas of London, evidence from recent performance suggests that in most cases the most fruitful approach will be a combination of investment in improving housing (to support jobs in the residential services economy) and in infrastructure (to support commuting). This is reflected in the recent performance of outer London overall, where jobs growth has primarily been in the industries and services required to support a growing residential population [Figure 25]. Jobs in pre-primary care, for example, have increased 130% between 2009 and 2012. In real estate, jobs growth is even faster than that in inner London. By contrast jobs in information, communication and administration only increased 10% between 2001 and 2011, compared to 32% in inner London, and employment in financial services and manufacturing shrank over the same period. These data show that outer London's jobs performance has been driven by its role as a successful residential commuter zone, with only a minority of areas building local economies that go significantly beyond the (extensive) services required to serve local residents.

While there will be a minority of areas where it is possible to create a centre for economic activity that goes well beyond residential services (for example Old Oak Common), for the majority of outer London we see the most fruitful approach as being rapid, ambitious and integrated upgrading of transportation, housing and residential services to build successful commuter areas and fuel local employment.

Figure 25

Sources of growth in outer London

Change in employment 2000-11[1]
Thousands



1 "London" defined as per NUTS 1, includes Greater London. Industry classification based on SIC 2007; 2011 employment for London consists of 1.1m in distribution, transport, accommodation and food, 1.1m in business services, 1.1m in public admin, education and health, 400k in information and communication, 400k in finance and insurance, 300k in construction and 600k in other

2 Includes professional, scientific and technical activities as well as administrative and support service activities – for London, 91% of growth driven by professional, scientific and technical activities

SOURCE: BRES; team analysis

LIMITED CAPACITY TO INVEST AND DELIVER

Compared to its international peers, London has much lower fiscal and political autonomy and is highly dependent on national policies and funding. For example, London government funding is highly dependent on spending allocated from central government: 74% of GLA and borough expenditure is based on intergovernmental transfers. This is considerably more than key peers such as New York (31%) and Paris (18%)[80].

London takes sole responsibility for only one tax, council tax (and even this is in practice highly regulated by central government), whereas peers set many more, enabling better long-term planning and greater flexibility. Grants from central government are highly volatile, making it difficult for the GLA and councils to plan far ahead. Furthermore, roughly three-quarters of the grants received are earmarked for specific purposes, limiting London's economic freedom[81].

London therefore has much lower capacity than many of its competitors to raise revenue, borrow for investment, capture the value of development for reinvestment, leverage its balance sheet of assets, or cross-finance services as needs require. It operates within a financial straitjacket that sets it apart from all other major world cities.

As pointed out in the work of the RSA City Growth Commission, further devolution to the UK's metro areas is not just something for London, but a force that could also benefit the rest of the UK's cities[82], which have not yet enjoyed the advantages London has secured from- limited- devolution to the Mayor.

Compared to many of London's peers the city's governance model is still relatively young, given that the Mayor and GLA were established only in 2000. As this governance system matures and as cities seek to secure greater powers and funding, London's internal governance could be further refined. For example, there is additional potential for groups of boroughs to build sub-regional partnerships around particular issues or services. Recent years have seen a substantial increase in such working, driven in part by the resource pressures that local government faces, and more is to be welcomed. Equally, there is more to be done in building the right balance of competencies across the GLA and boroughs: for example, for London to achieve its housing target may require greater central coordination. Many cities cope with this kind of complexity, and major structural reform is unlikely to be efficient given the level of disruption it would cause. However, increasing devolution from the national level will need to be met with a city-level governance system that can drive faster and more effective delivery of London's economic priorities.

[80] Slack, Enid, *International Comparison of Global City Financing*, 31 January, 2013

[81] See GLA and Council Annual Statements of Accounts for details

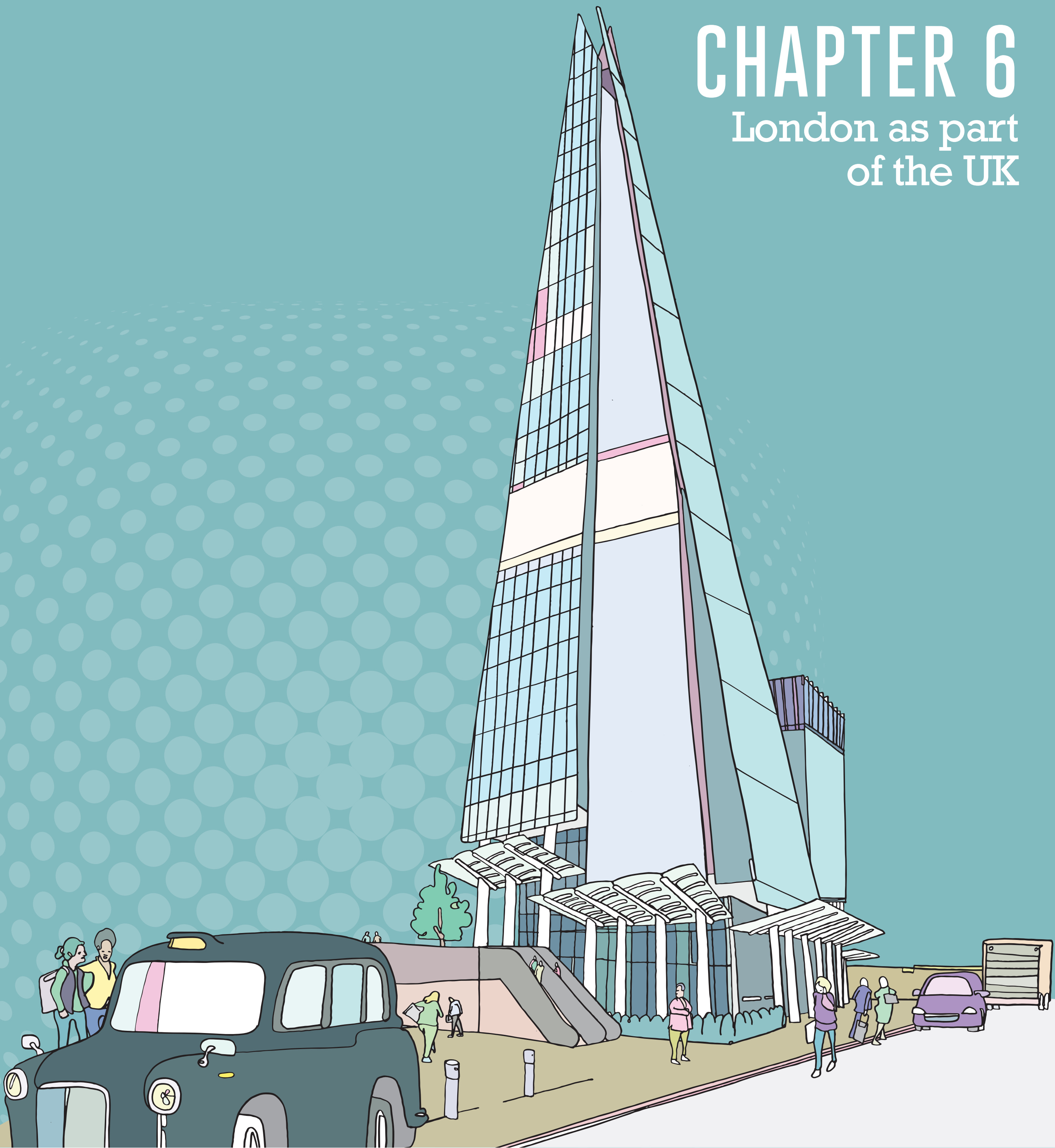
[82] RSA City Growth Commission, *Unleashing Metro Growth: Final recommendations of the City Growth Commission*, October 2014

COMPARED TO ITS INTERNATIONAL PEERS, LONDON HAS MUCH LOWER FISCAL AND POLITICAL AUTONOMY AND IS HIGHLY DEPENDENT ON NATIONAL POLICIES AND FUNDING.

IMPLICATIONS FOR LONDON'S ECONOMIC PRIORITIES

- London needs fast and integrated development of both housing and transport in order to cope with its rising population, spread growth to additional areas of the city, and to ensure rising costs do not put economic growth at risk.
- London needs to address specific weaknesses in air connectivity and digital connectivity to ensure growth fuelled by global openness and technology is not jeopardised.
- London faces a growing challenge around inclusion, covering both unemployment and in-work poverty, and needs much greater focus on ensuring lower-skilled Londoners can successfully compete in a rapidly changing labour market.
- London needs additional powers and resources at the city level in order to address these issues, to compete more effectively with international peers, and in particular to allow greater long-term investment.

CHAPTER 6
London as part of the UK



London's identity and attributes are deeply integrated into UK business culture and reputation: London is a key driver of the UK's business brand.

THE RELATIONSHIP BETWEEN LONDON AND THE REST OF THE UK

London's economy is deeply intertwined with that of the rest of the UK. As a global business hub, London serves the country as a whole as the principal location for corporate headquarters; as a gateway for international talent, tourists, and investment; and as the location for the provision of advanced services to many national industries. London's identity and attributes are also deeply integrated into UK business culture and reputation: London is a key driver of the UK's business brand.

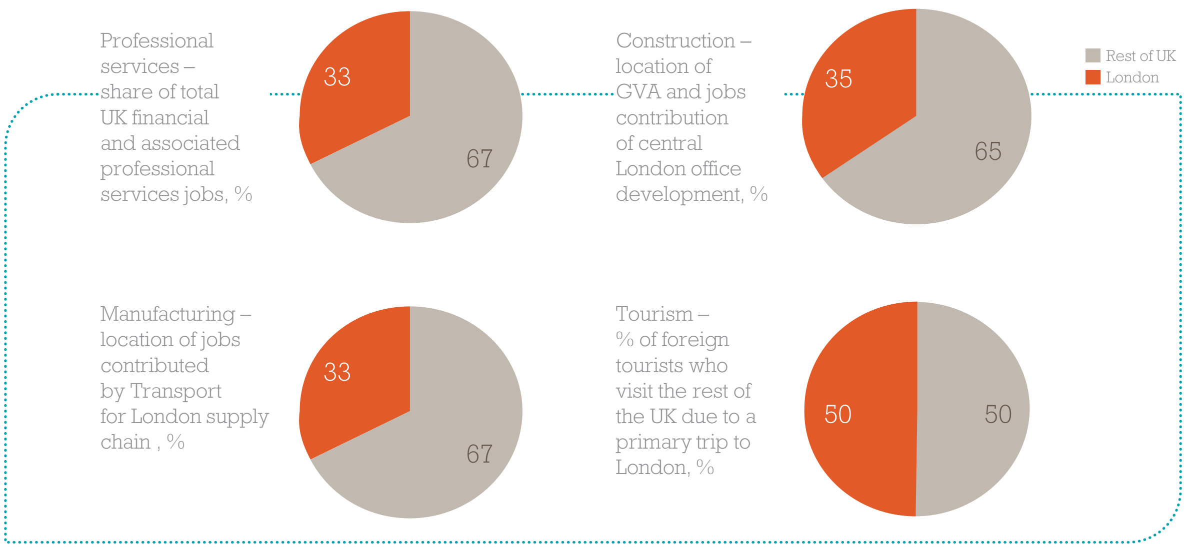
Equally, the rest of the UK provides London with a broad range of services, and trade relationships are strong. London and the rest of the UK provide complementary locations within important UK clusters and act as sources of talent for each other. There are strong labour flows between London and the rest of the UK. London is also a net exporter of government revenue, with an average of £12.5 billion per year of taxes raised in London being spent elsewhere in the UK, supporting the broader UK economy and public service provision[83]. Each of these points is explored in more detail below.

Trade relationships

While there is no official source for intra-UK trade statistics, the GLA estimates London's exports to the rest of the UK and the rest of the UK's exports to London at around £300 billion each[84]. An example of the strong trade relationships between London and the rest of the country is Transport for London's (TfL) supply chain, where two-thirds of the jobs driven by TfL's investment are based outside London. The jobs created by the construction of new office space in London are spread across the UK in a similar proportion [Figure 26].

Figure 26

ECONOMIC RELATIONSHIPS BETWEEN LONDON AND THE REST OF THE UK



SOURCE: City of London "Financial Services in the UK", 2013; TheCityUK; London First, "Building London, Building Britain", 2013; TfL Annual Report 2012/13; Oxford Economics, "London's Linkages with the Rest of the UK", 2004

[83] Oxford Economics/City of London Corporation, *London's Finances and Revenues*, December 2012

[84] Greater London Authority, *Growing Together II: London and the UK economy*, September 2014

UK clusters

London and the rest of the UK play complementary roles in a number of critical industry clusters, for example:

- the UK's successful life sciences cluster relies on outstanding academic institutions and teaching hospitals across the Greater South-East including London, but private-sector employment is more significant for areas outside the capital [Figure 27];
- London and other UK regions play complementary roles in the UK's provision of financial services: two-thirds of the UK's employees in financial and professional services are located outside London, with notable clusters in a series of UK locations, for example, US bank JP Morgan has a regional HQ in London and is also the largest private-sector employer in Dorset[85]; and
- company headquarters are concentrated within London, but there are strong spill-overs into the broader South-East, reflected in a large number of company headquarters located just outside London's administrative boundaries [Figure 28].

Figure 27

THE SPREAD OF THE LIFE SCIENCES CLUSTER AROUND LONDON

Share of employees working in pharmaceuticals or medical devices, percent

SOURCE: BRES; GLA; team analysis

An integrated labour market

London provides employment for 870,000 commuters from outside London, primarily from the South-East. London is surrounded by a ring of areas where more than half of the working population work in London, creating an obvious need for an integrated approach to housing and transport across the greater South-East [Figure 29].

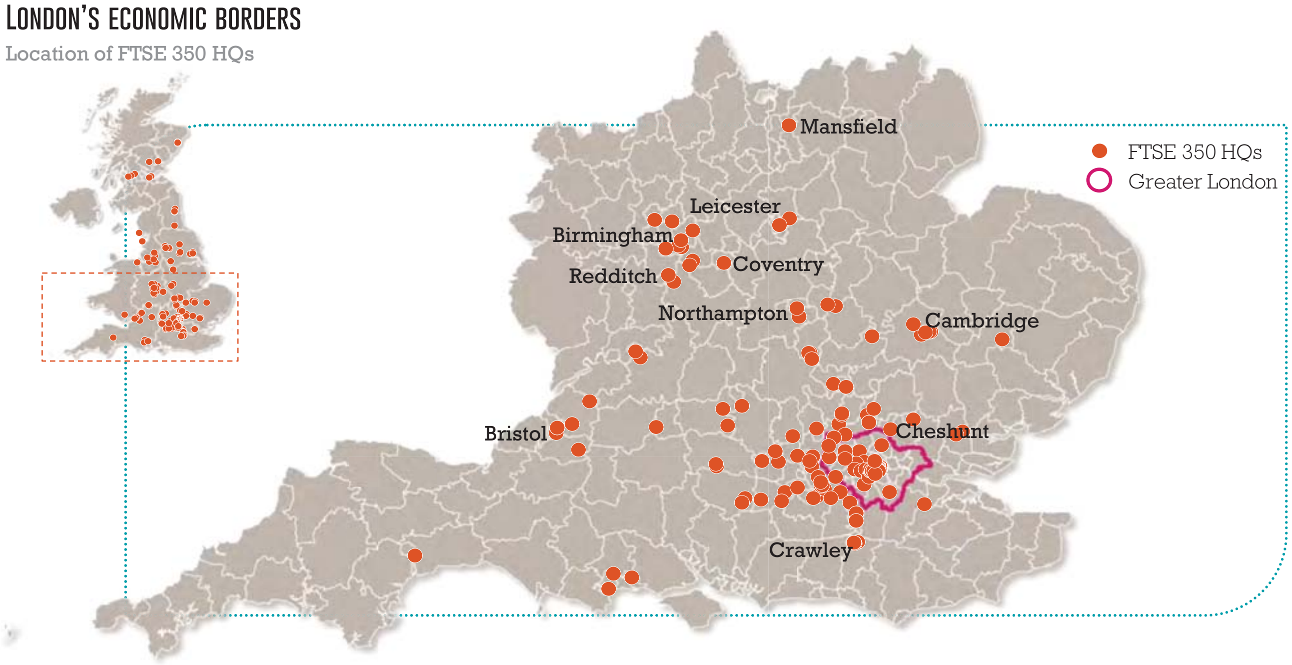
Looking beyond commuting, there is a flow of domestic migrants out of London each year to the rest of the UK, with around 60,000 more people migrating from London to the rest of the UK than vice versa. The composition of these flows is complex and changes over time but, in essence, those who move in to London are on average younger (16-24 is the only age group showing net migration into London from the rest of the country) and come from a broad spread of geographies; while those who leave London are typically older, more skilled and move primarily to the South-East.

[85] TheCityUK, *Driving Economic Growth; Creating Sustainable Jobs: How Financial And Related Professional Services Serve The UK*, April 2014

Figure 28

London's economic borders

Location of FTSE 350 HQs

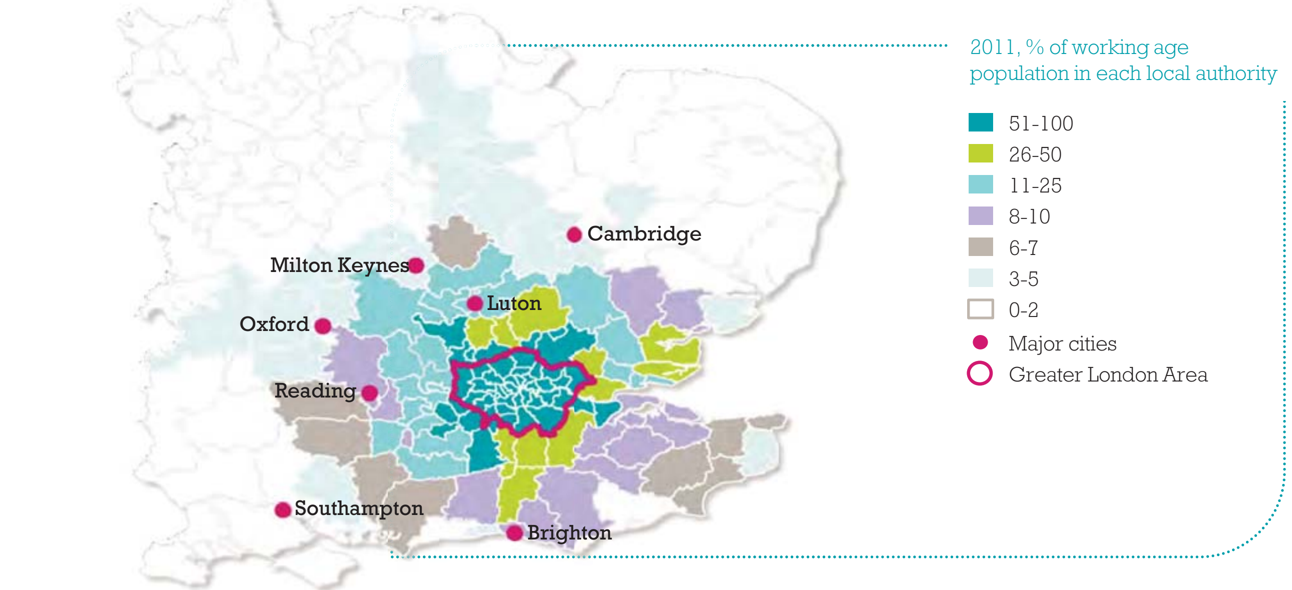


SOURCE: McKinsey analysis using data from Nomis, Business Register and Employment Survey

Figure 29

London's economic borders

Proportion of working age population that works in London



SOURCE: ONS 2013, Annual Population Survey commuter flows, local authorities in Great Britain, 2010 and 2011, cited in Centre for Cities, Cities Outlook 2014; Oxford Economics, "London's Linkages with the Rest of the UK", 2004

This means that while the South-East, East and South-West gain older, highly skilled migrants from London, other regions each have a net loss to London of between 1,000 and 2,200 people a year (averaged since 1975)[86].

These numbers are very small relative to the millions of people living in each of these regions, but they are disproportionately young and, potentially, high-skilled. However, the latest figures show that people aged 30-39 are leaving London at an increasing rate, which the ONS suggest could be due to rising house prices for family homes, and are going to a wide range of locations across the UK, with Birmingham being the most popular destination[87].

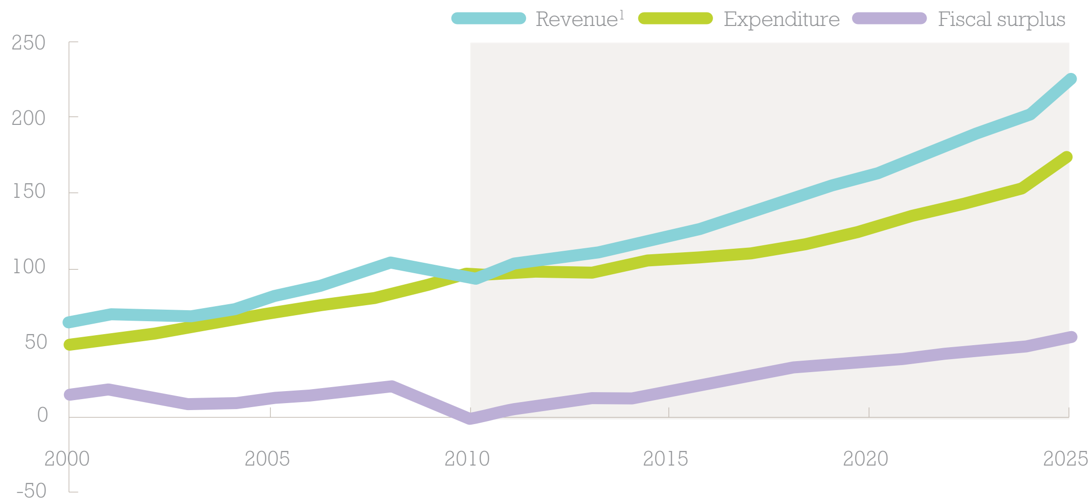
The fiscal relationship

Finally, London generates a significant fiscal surplus for the rest of the UK, with an average net contribution of £12.7 billion annually over the last ten years [Figure 30]. Overall London's economy increases levels of public investment in the rest of the UK, rather than taking away resources from other areas.

Figure 30

LONDON'S FISCAL CONTRIBUTION

London's tax revenue relative to public expenditure received
£ billions



1 Average revenue consists of a weighted average of resident-based revenue and workplace-based revenue

SOURCE: Oxford Economics (2012), "London's Finances and Revenues"

WORKING MORE EFFECTIVELY ACROSS THE GREATER SOUTH-EAST

The economic linkages described above are particularly significant for the South-East. They of course create economic opportunity for both London and the South-East. However, they also create practical challenges in driving integrated thinking across the region: for example, in developing the transport network to support commuting from outside London, or in establishing housing targets that could sit either inside or outside London's governmental boundary.

There is also an opportunity to drive local development strategies for areas near London that capitalise on the strengths of both the capital and its surrounding areas – for example the work being done on the London-Stansted-Cambridge Corridor to join up and magnify the work of local councils and the relevant Local Enterprise Partnerships (LEPs), and to leverage the connectivity created by the M11, A10, A1, the two rail lines and Stansted Airport.

[86] Greater London Authority, *Growing Together II: London and the UK economy*, September 2014

[87] See ONS, *Focus on London Moves* and accompanying data tables, November 2014

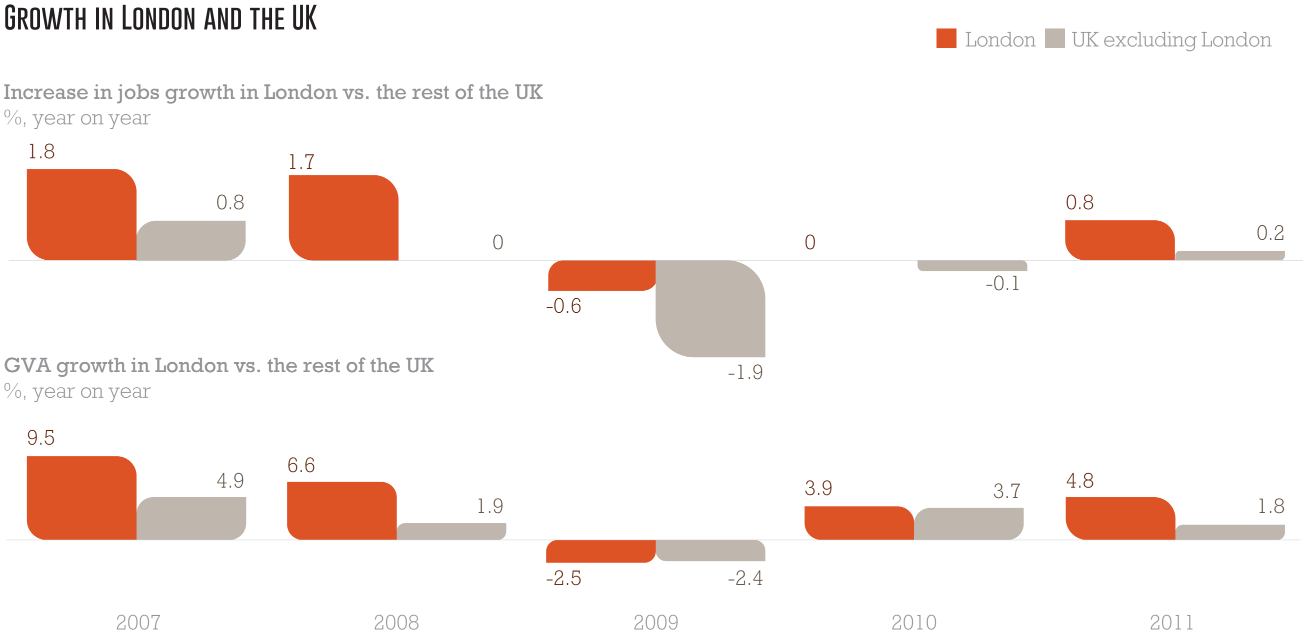
A similar approach is being taken by the Coast-to-Capital LEP that includes Croydon, the M23, Gatwick Airport and Brighton, and has been pioneered in the past by the Thames Valley and its various partnership groups along the M4 and the Paddington-to-Bristol rail link. More cross-regional thinking is needed to encourage existing regional bodies to co-operate more closely in understanding interdependencies and developing joint solutions. More incentives are needed to encourage and support such strategies.

WORKING MORE EFFECTIVELY ACROSS THE UK

London's performance and the UK's performance are highly correlated. Analysis in the GLA's Growing Together report confirms that when London performs well, the national economy tends to perform well and vice versa. However, over the recent past growth in London has been, on average, higher than growth in the rest of the UK [Figure 31]. The UK's major cities, outside the South-East, have experienced less strong performance than their counterparts in other European countries such as France and Germany [Figure 32].

Figure 31

Growth in London and the UK



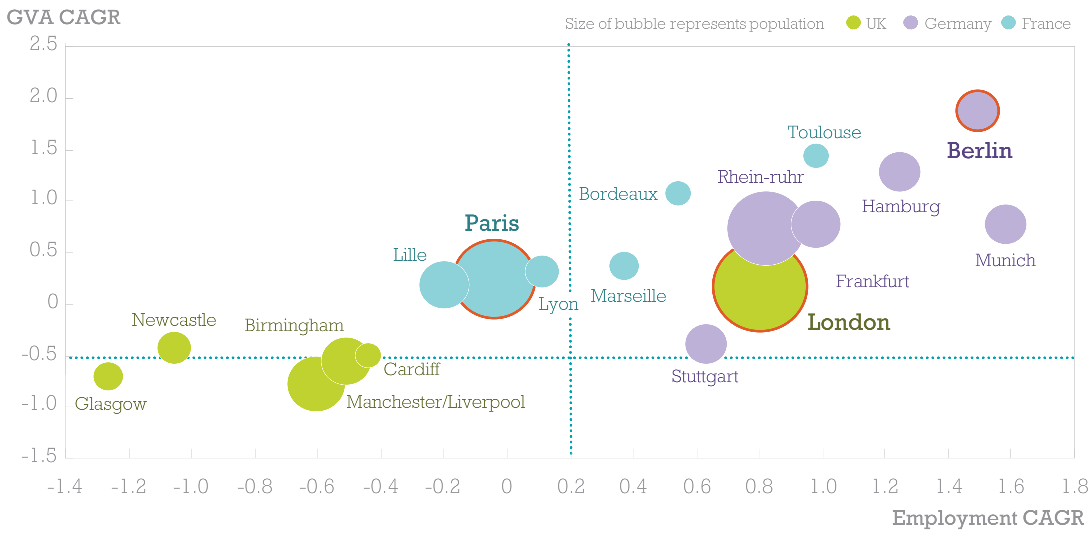
SOURCE: Annual Population Survey, Region and Country Profiles: Economy, ONS

LONDON GENERATES A SIGNIFICANT FISCAL SURPLUS FOR THE REST OF THE UK, WITH AN AVERAGE NET CONTRIBUTION OF £12.7 BILLION ANNUALLY OVER THE LAST TEN YEARS. OVERALL LONDON'S ECONOMY INCREASES LEVELS OF PUBLIC INVESTMENT IN THE REST OF THE UK, RATHER THAN TAKING AWAY RESOURCES FROM OTHER AREAS.

Figure 32

City performance

GVA growth and increase in employment among European cities[1], 20070-2012, %



1 Metros defined as contiguous urban area, not by administrative boundaries

SOURCE: LSE (2013), "European MetroMonitor"

This raises the question of whether the UK as a whole is set up to make maximum use of its access to one of the world's global economic hubs. Given the relatively small geographic size of the UK, proximity to London should work to the advantage of other UK regions. There is no fundamental reason why the UK cannot support a larger set of city-regions that are globally competitive in their own right, each with a set of complementary strengths and specialisations. One obvious opportunity to improve economic performance is through other UK cities and regions developing strategies that complement London; and for London to collaborate vigorously with such strategies. This could, for example, be through:

- joint foreign investment strategies for London and other UK cities to attract HQs and middle/back office locations in a complementary way (recognising that there are multinationals who are unlikely to locate their HQs in the UK outside of London, but would be interested in complementary locations near a smaller HQ);
- joint tourism promotion, capitalising on London as the gateway for most tourists visiting the UK and building on the recent successful joint campaigning between Wales and London;
- more industry-specific co-operation with successful clusters outside London, e.g., Bristol's electronics and tech clusters, and key customers of London, e.g., the UK's construction sector; and
- more joint advocacy on city devolution, building on the links which are already in place, recognising that increased pressure from other cities for devolution will boost London's case, and vice versa.

Without such collaboration this differing economic performance raises the risk of further political divergence. The whole of the UK needs to co-exist under a single set of national policies, for example on tax, immigration, and interest rates. However, economic and political differences between the capital and the rest of the country put this balance at risk. There are already important differences on issues that could be critical for London's future success: for example 54% of Londoners think immigrants have a positive impact on the UK economy, compared with only 28% of the UK population overall[88].

[88] Natcen, *British Social Attitudes 31*, 2014

IMPLICATIONS FOR LONDON'S ECONOMIC PRIORITIES

- London would benefit from addressing its economic opportunities in a way that maximises what it can deliver for the national economy – acting in conjunction with other city regions to support the healthy economic development of the UK as whole.

CHAPTER 7
Ambitions for London's economy

London faces a growing challenge around inclusion, covering both unemployment and in-work poverty, and needs much greater focus on ensuring lower-skilled Londoners can successfully compete in a rapidly changing labour market.

THE IMPLICATIONS OF THE ANALYSIS SO FAR

Looking back at the preceding chapters, the implications we have identified for London's future economic priorities are:

- London has a strong economic starting point, but its productivity performance has been badly set back by the crisis, and the city should seek to build strength in a broad set of high productivity sectors to build its future resilience, while also maintaining its recent track record in job creation;
- London is well-placed to benefit from a changing global economy that will increase the returns to talent, global openness and investing in technology, but relative to its future competitors it suffers from fewer geographical, cultural and linguistic links to Asia in general and China in particular;
- London has already established a unique position as the global hub for talent, business, finance and global visitors, however this could be put at risk by national policy on both immigration and Europe;
- London has an opportunity to establish itself as a global capital for technology, creativity and entrepreneurship, but to gain maximum economic benefit it needs to address the gaps in skills and funding that make it challenging for businesses to grow;
- London needs fast and integrated development of both housing and transport in order to cope with its rising population, spread growth to additional areas of the city, and to ensure rising costs do not put economic growth at risk;
- London needs to address specific weaknesses in air connectivity and digital connectivity to ensure growth fuelled by global openness and technology is not jeopardised;
- London faces a growing challenge around inclusion, covering both unemployment and in-work poverty, and needs much greater focus on ensuring lower-skilled Londoners can successfully compete in a rapidly changing labour market;
- London needs additional powers and resources at the city level in order to address these issues, to compete more effectively with international peers, and in particular to allow greater long-term investment; and
- London would benefit from addressing its economic opportunities in a way that maximises what it can deliver for the national economy – acting in conjunction with other city regions to support the healthy economic development of the UK as whole.

WHAT THIS MEANS FOR LONDON'S ECONOMY

Building on these observations, we have defined three broad imperatives for London's economy between now and 2036.

- First, London should **cement its position as the leading global hub for business and talent**, building deeper links to emerging markets and addressing uncertainty about national policy on immigration and Europe.
- Second, London should **fuel diversity in future growth by capitalising on its strengths in technology and creativity**, improving its ability to scale up entrepreneurial businesses to drive large scale job creation.
- Third, London should **more actively address its challenges around inclusion, infrastructure and governance** as these will become increasingly problematic as London grows.

These themes support each other. For example, London's status as the global hub is fuelled by its cultural strengths while London's creativity is supported by its role as a global melting pot. Equally, London's attractiveness to talent is dependent on its ability to invest in housing and infrastructure while investment is in turn fuelled by economic growth.

Other cities face similar challenges. Some have similar strengths. Many have similar ambitions. However London uniquely combines a realistic aspiration to be the leading global hub for business at the same time as being the leading capital of creativity and technology – and has to pursue this aspiration while operating within a complex governance model that considerably limits its freedom to fix its own problems.

AMBITIONS FOR LONDON'S ECONOMY IN 2036

By 2036, London's economy needs to reflect progress against each of these themes. The existing achievements of the city as the world's leading global hub should have been maintained and extended, even in the face of rising competition. The potential of the city as the world's leading creative engine should have been fulfilled. The challenges of inclusion, infrastructure delivery and governance that limit London as a city that works well should have been addressed. If these three imperatives are followed then London's economy should have made progress towards a broad set of ambitions in 2036:

A. Cementing existing leadership: The Global Hub

- ☑ Attracts and welcomes the best talent from around the world to study and to work
- ☑ Is the first choice location for global businesses, whether from mature or emerging markets
- ☑ Has a clear lead as the world's most important centre for financial and business services
- ☑ Attracts significantly more spend from overseas visitors than anywhere else in the world
- ☑ Has an unrivalled breadth of global relationships across Europe, the Americas, Asia and Africa.

B. Fuelling more diverse growth: The Creative Engine

- ☑ Is the best place in the world to be an entrepreneur, whether starting up or scaling up a business
- ☑ Has the world's strongest collection of academic institutions and uses them to fuel world-beating innovation
- ☑ Is the world's capital of culture, reflected in the world's largest creative sector
- ☑ Has the world's largest technology cluster not counting physical manufacturing
- ☑ Provides a better environment than anywhere else for fast-growing firms, with the technical talent and infrastructure to support growth.

C. Addressing weaknesses: The City that Works

- ☑ Controls a minimum of 10% of its total tax base and has the ability to fund and finance its own long-term investments
- ☑ Has an integrated transport system that stays ahead of rapidly-expanding needs across the region
- ☑ Builds housing at a rate of at least 50,000 new homes a year
- ☑ Creates economic opportunity for all its residents and reduces unemployment to at least the UK average
- ☑ Responds quickly and co-operatively to new threats and opportunities, through a well-functioning governance system.

And across all three priorities:

☑ Works closely with the rest of the UK to generate economic growth across the country as a whole.

HOW TO GET THERE

We have identified a set of specific priorities on which London needs to focus to deliver these ambitions for 2036.

These priorities, three for each major theme, and one cross-cutting, are designed to:

- define the most important areas for action with the highest impact on GVA and jobs (rather than being an exhaustive list of everything that could be done to support economic growth)
- identify areas of weakness in London's existing plans or progress relative to our 2036 economic ambitions (not just repeat things that are already being progressed fast enough)
- be based on a clear case for intervention by public and/or private sector stakeholders (not just things that the market will deliver by itself); and
- be long-term priorities that will last over at least a 3-5 year timescale (not just concerns for the next 1-2 years), and that will serve London well through both political and economic cycles.

Many of these areas are already the focus of existing work. However, we believe that in each of them there is room for a more concerted effort, united across all of London's stakeholders, to drive faster change. Under each of these priorities the next step will be to develop a set of specific actions, both short- and long-term, to drive change. This will require a deeper consultation process with the relevant stakeholders from across private and public sectors, as well as more time to be spent on issue-specific analyses and best practice and on building a strong understanding of what has been tried before and worked or not. As a starting point we have suggested what some of the actions under each of the areas could look like; however these ideas are not a replacement for the detailed and longer-term planning that is now needed.

LONDON WOULD BENEFIT FROM ADDRESSING ITS ECONOMIC OPPORTUNITIES IN A WAY THAT MAXIMISES WHAT IT CAN DELIVER FOR THE NATIONAL ECONOMY – ACTING IN CONJUNCTION WITH OTHER CITY REGIONS TO SUPPORT THE HEALTHY ECONOMIC DEVELOPMENT OF THE UK AS WHOLE.

LONDON UNIQUELY COMBINES A REALISTIC ASPIRATION TO BE THE LEADING GLOBAL HUB FOR BUSINESS AT THE SAME TIME AS BEING THE LEADING CAPITAL OF CREATIVITY AND TECHNOLOGY – AND HAS TO PURSUE THIS ASPIRATION WHILE OPERATING WITHIN A COMPLEX GOVERNANCE MODEL THAT CONSIDERABLY LIMITS ITS FREEDOM TO FIX ITS OWN PROBLEMS.

THE PRIORITIES IN SUMMARY

A. Cementing existing leadership: The Global Hub

1. **Stay open for business:** strengthen London's voice on national policies that could put London's status as the global hub for business and finance at risk: particularly immigration and the UK's relationship with Europe.
2. **Increase focus on emerging markets:** develop new approaches and radically step up promotion to win emerging market investment, business, visitors, talent and students, starting with Asia.
3. **Improve global access:** accelerate the creation of aviation capacity in the South East and improve the visa system for global visitors.

B. Fuelling more diverse growth: The Creative Engine

4. **Train more technical talent:** respond to market shortages of technically capable workers by improving education and training at all levels from school through to adult education.
5. **Improve digital connectivity:** ensure high speed, affordable, secure and resilient digital connectivity across the whole of London.
6. **Improve funding for growing SMEs:** expand access to equity-based funding opportunities for high-growth SMEs, filling the gap between start-up funding and flotation.

C. Addressing weaknesses: The City that Works

7. **Secure long-term infrastructure investment:** negotiate greater devolution of taxes raised in London and expand London's ability to capture the uplift in property values from transport investment.
8. **Accelerate housing delivery:** improve incentives, coordination, capabilities and resourcing across the GLA and the boroughs to increase dramatically the planning and building of new homes.
9. **Develop Londoners' employability:** dramatically scale up efforts to ensure that everyone who grows up in London is equipped to compete for jobs in a changing and increasingly competitive labour market.

10. **Support UK-wide growth**: step up support to economic development across the UK, with a stronger role in promoting city devolution, forging regional co-operation and designing complementary growth strategies.

CHAPTER 8

Exploring the themes and priorities

London needs to translate its strong relationships with the Western world into an equally strong position with the emerging world.

THE GLOBAL HUB: CEMENTING EXISTING LEADERSHIP

Why this theme and priorities

This is an important theme for London's economy because:

- London's mutually reinforcing strengths as the global hub for business, talent and financial and business services have been the most important driver of its past economic performance and have given the city a pre-eminent position in terms of its global competition.
- Looking ahead, London has the potential to drive further growth in GVA and jobs, for example, by capturing global opportunities in emerging markets, capitalising on further integration of the European services market and leveraging the growth in tourism to create large-scale employment growth of a kind that is increasingly rare.
- However, this analysis has identified some risks to London's leadership position, particularly in light of growing competition from global cities in emerging markets:
  - national public opinion and hence UK government policy could put pressure on London's openness to immigration and relationship with the European Union;
  - international economic growth is moving ever faster to emerging markets, particularly to Asia where London's relationships are not as strong as its relationships with the West; and
  - London faces practical challenges in accessing the talent and visitors that will fuel its global relationships – both from physical airport capacity and specific visa services and policies.

Priorities for action

1. **Stay open for business**: strengthen London's voice on national policies that could put London's status as the global hub for business and finance at risk: particularly immigration and the UK's relationship with Europe.

Our analysis of London's strengths and weaknesses does not suggest London needs to adjust to become radically more pro-business, following the path set out by competitors like Dubai. London has many other strengths, and indeed aspects of regulation are likely to prove a critical lever in improving the city's resilience. However, current uncertainty about immigration policy and the UK's relationship with Europe are beginning to send a message to the rest of the world that London is turning its back on international openness.

The levers here are held by national government, but London must have a much stronger, united voice from across the public and private sectors that clearly articulates the economic benefits from the city's relationship with the European Union and openness to global talent. On immigration, London spokespeople have a particularly powerful opportunity in a national setting since they can accurately represent the relatively pro-migration views of the majority of Londoners.

2. **Increase focus on emerging markets**: develop new approaches and radically step up promotion to win emerging market investment, business, visitors, talent and students, starting with Asia.

London needs to translate its strong relationships with the Western world into an equally strong position with the emerging world. London is well positioned to do this – taking advantage of both its historic links to India, and its location as a gateway to Africa. However, as described above, London faces much tougher competition in the future, and already shows pockets of weakness, for example in relations with China.

Part of this work is essentially promotional. London is already undertaking significant promotional activity in all these markets, but the scale is modest. For example London and

Our analysis of London's strengths and weaknesses does not suggest London needs to adjust to become radically more pro-business, following the path set out by competitors like Dubai. London has many other strengths, and indeed aspects of regulation are likely to prove a critical lever in improving the city's resilience.

Partners, the agency with responsibility for promoting London internationally, has five staff in China (necessarily focused in Beijing and Shanghai only). There is considerable room to step up promotion – whether through additional publically funded work and/or a much more concerted and co-ordinated private sector approach. This should, where possible, be done in conjunction with other UK cities but London should not wait for UKTI to provide the impetus for change.

However, ensuring London builds truly strong relationships with key emerging markets is about much more than expanding promotion. London needs a clear understanding of:

- where its relationships are weak and strong, including how this varies by individual market, industry, location within London and type of connection;
- how London performs against the needs and requirements of emerging market visitors and investors and what are the most important blockers and opportunities (across the full spectrum of underlying issues e.g., language knowledge); and
- what specific actions are required to address the opportunities identified, whether they are in the control of boroughs, London government, national government or the private sector.

This should not just be about attracting business directly, but also about building the broader relationships and contacts that will foster long-term bonds – whether through study or tourism or otherwise.

In the near term, we would suggest the geographic focus should be on London's area of greatest apparent weakness: China. At the same time as the broader strategic effort described above, London should immediately scale up the level of budget, manpower, frequency of visits, seniority of delegations and number of cities in focus for promotion in China.

3. **Improve global access:** accelerate the creation of aviation capacity in the South East and improve the visa system for global visitors..

London cannot retain its position as the global hub if global visitors are physically or procedurally discouraged from visiting it.

On airport capacity much has already been considered: this report reiterates that this is an absolutely critical economic priority for London given that capacity is likely to be a clear constraining factor on London's global connectivity by 2036. We are therefore recommending that London supports moves rapidly to expand airport capacity in the South-East.

On visas, London needs to introduce a rigorous process to identify the specific (and sometimes relatively minor) policy or processing changes that matter most to London's economy, and then coalesce around a common set of messages to national government. Positive progress has been made in the past, partly as the result of campaigning by London businesses, for example in recent incremental reforms to Chinese visa processes. The next wave of targets could include:

- improving ease of access to post-study visas for potential entrepreneurs;
- creating ''scale-up'' visas to make it easier for fast-growing companies to hire skilled workers;
- streamlining the processes for applying for a UK and European Schengen visitor visa in parallel, to help attract more of the Chinese pan-Europe tour market; and
- changing the way student visas are processed to avoid the signal that the UK does not welcome students from particular countries.

THE CREATIVE ENGINE: FUELLING MORE DIVERSE GROWTH

Why this theme and priorities

- The mutually-reinforcing technology and creative sectors already represent the largest contributor to London's recent jobs and GVA growth and look like London's best concrete opportunity to diversify growth alongside London's existing strength in financial and business services.
- Looking forward, technology-driven growth is likely to continue on a large scale – the world is at the early stages of seeing the impact of a number of major disruptive technologies, and London's fundamental strengths in research, talent, creativity and finance should make it an unparalleled location for commercial innovation.
- However, in order to harness maximum economic benefit from its strengths in entrepreneurship and technology, London needs to ensure that innovative businesses reach scale, which means addressing:
  - an acute shortage of technical talent;
  - pockets of inadequate digital connectivity in places where many SMEs are concentrated; and
  - gaps in the equity-based finance that innovative companies need to fund their growth.

London's priorities for action

4. **Train more technical talent**: respond to market shortages of technically capable workers by improving education and training at all levels from school through to adult education.

While talent shortages are to some extent an expected phenomenon for a young, high growth field like technology, this is an area where there is a strong case for collective intervention, given that skills pathways are long-term and complex across schools, further and higher education and the private sector.

Improving the supply of technically-qualified people will require a range of measures: from adjustments to school curriculums and career advice; through to changes of emphasis in both further and higher education; through to greater levels of industry co-operation and provision. It also connects to the work described under Priority 3 on visa access for high-talent groups and the work described under Priority 9 on driving employment for lower-skilled Londoners. Some of the levers will be held nationally, some by London government and some by the private sector. Working collectively across the stakeholder groups London needs to:

- understand the true nature of the talent gaps, for example how much of the problem is driven by lack of specific technical skills and how much of the problem is driven by lack of on-the-job experience in those who have the relevant skills;
- create a robust process for monitoring London's performance on technical skills over time, that is much more targeted on specific skill types than existing measures of skills shortages such as the UK Employer Skills Survey;
- identify the underlying reasons for lack of supply in critical areas: for example does the problem begin with Londoners' choices while at school, given a limited understanding of potential career choices, or is the problem driven by qualified people moving out of London; and
- build a set of interventions to address the gaps: balancing quicker win initiatives like adult retraining in immediate shortage areas like coding with long-term interventions addressing root causes of shortages in underlying STEM skills through school curriculums and careers guidance.

5. **Improve digital connectivity**: ensure high-speed, affordable, secure and resilient digital connectivity across the whole of London.

The UK has a market-driven approach to the provision of digital connectivity and, as noted above, the result has been low-cost, high quality consumer-grade connections for approaching 90% of London overlaid by the universal availability of business-grade Ethernet. However, one consequence of the commercial choices made by customers and suppliers is that London has a lower average broadband speed performance, as measured by on-line speed checkers, than cities such as Seoul who have set top-down, ambitious speed and connectivity targets and been prepared to use public investment to achieve them.

For London there are three issues that merit attention.

First, there are the areas of London that are not covered by superfast broadband[89]. Although coverage is improving rapidly and Ofcom expect it to reach 91% soon[90], some of the ''not spots'' overlap with places where there are many innovative SMEs, for example Shoreditch. There are a number ways in which London could explore speeding up either the roll-out of high-speed broadband or the take-up of Ethernet. For example:

- ensuring developers of all new sites are required to ensure that there is provision for access to high-speed, open-access, digital connectivity on a non-exclusive basis;
- streamlining planning restrictions on the deployment of street cabinets, which is often cited as a barrier to investment;
- encouraging commercial landlords to provide shared (and thus low cost-per-user) Ethernet connectivity in multi-tenanted buildings, for example through a public ratings system to make premises' level of connectivity visible to potential tenants; and
- introducing public funding to expand broadband into areas where there is not a commercial return (which for central London areas would entail looking more carefully at what can be achieved in a way that is consistent with the EU State Aid regime).

Second, where superfast broadband is already in place, take-up has been low. Around 27% of fixed connections are superfast,[91] while nearly 90% of properties have access to these connections, and a significant part of this take-up is by households who been upgraded by their provider at no cost. This low take-up of faster connections could reflect either a lack of understanding of the benefits of faster connections by residents and SMEs or a true lack of demand, given the expected economic benefits of paying to move from ''fast'' to ''superfast''.

Third, there is a set of digital connectivity issues that are important to London businesses that go beyond fixed broadband. For example, mobile coverage, at 4G in particular, can be patchy in some areas of central London and Ofcom's most recent speed tests show central London has slower 3G and 4G speeds than Birmingham, Edinburgh, Glasgow or Manchester[92]. London also lacks a city-wide approach to public WiFi access and risks falling behind as other cities develop more consistent approaches: for example, New York has announced an intention to build LinkNYC, upgrading existing public phone locations to provide what it intends to be ''the fastest and largest free municipal Wi-Fi deployment in the world"[93].

Developing a clear London-level strategy for digital connectivity would help stem concerns from the tech community that London is being left behind internationally.

Digital infrastructure is identified as a priority by the draft London Infrastructure Plan 2050, which recommends the creation of a Connectivity Advisory Group to better understand, monitor and deliver against London's connectivity requirements. In the short-term it is essential that this plan be given the remit, resources and expertise that will be needed to cut through long-standing obstacles.

A separate issue from infrastructure provision is the risk to London's connectivity posed by deliberate cyber-attack – as illustrated by the attacks on JPMorgan in the US in August 2014. This is an issue that is becoming increasingly important, and one to which London's global connections, finance industry, and technology-driven strengths could make it particularly vulnerable. Unlike many of the other natural and security threats that London faces this is one where there is not a long-standing institutional approach to protection and response.

[89] Defined by Ofcom as speeds exceeding 30 Mbps

[90] *Ofcom, Communications Market Report*, August 2013

[91] As quoted in BT response to the GLA consultation on the London Infrastructure Plan 2050

[92] Ofcom, *Measuring mobile broadband performance in the UK*, November 2014

[93] See http://www.link.nyc/ for further details

The defence to this is not about further infrastructure construction but rather about the individual and collective security of London's corporate networks. There is a strong case for stakeholders across the city to mirror efforts in the US to step up the collective level of defence given the collective consequences of a failure. This could include, for example, better information sharing about the scale of existing attacks and attempted attacks; clearer industry-wide standards for protection; and integrated, rehearsed approaches to responding to attacks.

6. **Improve funding for growing SMEs**: expand access to equity-based funding opportunities for high-growth SMEs, filling the gap between start-up funding and flotation.

The risk for London is that the reported financing challenges facing London's highest growth companies are not simply a reflection of risk and reward for investors, but rather reflect:

- a relative lack of experienced technology investors with the right entrepreneurial background – particularly for larger opportunities where over £500,000 of investment is needed;
- a set of entrepreneurs who do not have the experience and skills to identify sources of appropriate finance and successfully pitch their growth opportunities; and
- a lack of an institutional framework that helps investors and high performance SMEs find each other easily – which is likely to be particularly pertinent outside the established clusters like Tech City.

The challenge therefore for London's stakeholders is to identify where there is opportunity for meaningful intervention, either private or public, to build a deeper and broader funding market. There is a constellation of existing European and UK initiatives in this area, for example the newly-created British Business Bank. They are not yet, however, working hard enough for London given the rapidly-increasing demand for funding and the importance of high-growth firms to the city's future performance.

Potential areas for additional intervention could include:

- supporting the growth of private sector, corporate-driven investment funds, like Intel Capital in the US, which capitalise on London corporates' requirements for tech-driven growth while supporting start-ups and scale-ups;
- building the profile of London among US venture capital firms, marketing London as a place with relatively good-value opportunities and high potential for international expansion compared with the US;
- improving signposting to existing UK and European initiatives, particularly for firms located outside high-growth hubs;
- building infrastructure to support better credit information in equity markets, for example establishing abbreviated rating services for mid-market companies; and
- piggybacking on existing schemes to ensure sufficient focus on London – for example establishing a London fund modelled on the equity activities of the British Business Bank.

DEVELOPING A CLEAR LONDON-LEVEL STRATEGY FOR DIGITAL CONNECTIVITY WOULD HELP STEM CONCERNS FROM THE TECH COMMUNITY THAT LONDON IS BEING LEFT BEHIND INTERNATIONALLY.

THE CITY THAT WORKS – ADDRESSING WEAKNESSES

Why this theme and priorities

- An effective, integrated and affordable system of transportation coupled with sufficient housing across the South-East critically underpins London's ability to attract and retain talent and to create growth and jobs across more areas of the city.
- Achieving this will require a significant pick-up in both investment and pace of delivery as London faces:
  - a rapidly rising population, reaching 10 million by 2036;
  - a rate of house-building that is delivering half the number of new homes required; and
  - an acute lack of autonomy to make long-term investment decisions given its dependence on central government transfers.
- In addition, London faces missed economic opportunity from both the unemployment and under-employment of lower-skilled Londoners, as well as long-term risk to the social cohesion and stability that the city needs if it is to continue to attract global talent and investment.

Where London should focus

7. **Secure long-term infrastructure investment:** negotiate greater devolution of taxes raised in London and expand London's ability to capture the uplift in property values from transport investment.

There is a strong case for further devolution of a range of powers to cities across the UK, for example as argued by the RSA Cities Growth Commission[94]. In London's case, the arguments are supported both by a record of successful devolved government, and by a particularly unique economic position within the UK which makes "one-size-fits-all" policy making ineffective. As described above, London operates under a much more centralised system than its international peers.

From the perspective of jobs and growth, the most important aspect of devolution is likely to be its impact on London's ability to make long-term investments in infrastructure, to meet the rising requirements (and bills) we have described. The London Finance Commission identified further devolution of property taxation to London as a practical way of improving London's ability to invest– by allowing greater certainty of income against which to plan, a fiscal base against which to borrow additional funds and, ultimately, the choice of whether to raise taxation in order to fund specific projects[95] . This is not about London reducing its contribution to the national exchequer; additional local tax-raising would be offset by a reduction in central government grants to London. Given the importance of this issue London needs to:

- make a much louder and more persuasive case for devolution to the capital, using 2015 to capitalise on the Scottish Referendum, the recent devolution settlement in Manchester, the results of the City Growth Commission and London's own work on the London Infrastructure Plan 2050;
- build a broader coalition of stakeholders from across the city to drive an integrated campaign, with a strong voice from business leaders alongside the public sector; and
- work closely with other city-regions around the UK to establish a shared voice that can effectively persuade national government.

However, London cannot rely on devolution alone. Infrastructure will be needed, whether or not a political settlement on fiscal devolution is reached. Therefore focus also needs to be given to alternative funding mechanisms, not all of which require further formal devolution and many of which are explored in the draft London Infrastructure Plan. In particular, looking at international success cases such as the Hong Kong MTR's "rail and property" model , we would advocate a greater focus on capturing the property values uplift associated with investment in new transport infrastructure. For example, in the case of Crossrail 2 this might mean a more intense level of development around stations, with use of the Community Infrastructure Levy to capture more of the uplift in land values to pay for development[97].

[94] *RSA City Growth Commission, Unleashing Metro Growth: Final recommendations of the City Growth Commission*, October 2014

[95] *London Finance Commission, Raising the capital – The report of the London Finance Commission*, May 2013

[96] See description in, for example, MTR, Sharon Liu, Chief Town Planning Manager, *The "Rail + Property" Model: Hong Kong MTR's Experience*, December 2013

[97] See London First, *Funding Crossrail 2*, February 2014

Beyond funding, London would also benefit from broader devolution of powers and resources, for example on skills, as we discuss under Priority 9.

8. **Accelerate housing delivery:** improve incentives, coordination, capabilities and resourcing across the GLA and the boroughs to increase dramatically the planning and building of new homes.

As described above, London needs to see a dramatic increase in the pace at which new housing is delivered. The good news is that improved sale conditions are already driving a strong increase in private housing construction "starts" since late 2013, which should convert over time into an improved rate of completions. Molior estimates that the recent level of starts for large private sector developments could deliver around 23,000 homes per year just from this segment of the market (which has historically accounted for about half of London's private housing development)[98]. However, this progress needs to be both maintained and broadened. It needs to be maintained by continuing the flow of planning consents for large sites and the flow of sites shifting from consent to actual building; and it needs to be broadened by achieving equally strong improvements in smaller private developments and public developments.

There is no single quick fix to ensure this happens[99]. Elements of the solution need to include:

- hard incentives, both positive and negative, to make sure borough-level development targets agreed with the Mayor are met;
- a comprehensive approach to bringing undeveloped land into development, particularly brownfield sites held by the public sector today (building on existing work by the London Development Panel in disposing of GLA-held sites);
- beefing up borough-level planning resources to speed up planning and pre-commencement processes, particularly for smaller developers[100];
- reforms to planning policy to allow denser development around accessible transport locations and (ultimately) selective development in low-quality land currently designated as greenbelt;
- working with the construction sector and skills providers to ensure a lack of construction skills in London does not become a barrier to home building;
- removing restrictions on local authorities borrowing against the value of their housing stock (within prudential limits) as recommended by the London Finance Commission; and
- finally and critically, strong integration with future transport strategies to ensure that new housing is developed as investment in transport brings new locations into viability for development.

9. **Develop Londoners' employability**: dramatically scale up efforts to ensure that everyone who grows up in London is equipped to compete for jobs in a changing and increasingly competitive labour market.

As discussed above, today London performs poorly on poverty, employment and inclusion measures. From the perspective of a jobs and growth strategy, the most worrying part of the picture is the wasted opportunity inherent in London's unemployment and under-employment rates. As this report has discussed, low-skilled Londoners are likely to face increasing challenges in accessing employment opportunities as the economy moves inexorably to higher-skilled jobs. There is no clear reason to expect the market to fix this challenge alone since the London economy can fill most skill shortages with people from outside London, either from the rest of the UK, Europe or the rest of the world. For example, 24% of London's construction workers come from the EEA[101]. Given European law on the free movement of people, managing this skills challenge by closing London's borders, even if desirable, is not an option without giving up the economic benefits of EU membership. London's response must be to help Londoners compete successfully for work.

[98] See Molior's report to the GLA: *Barriers to Housing Delivery- Update: Private Sector housing Development on Larger Sites in London*, July 2014

[99]See discussion in, for example, *London First, Home Truths: 12 Steps to Solving London's Housing Crisis*, March 2014

[100] See discussion in *LCCI, Getting our house in order: The impact of housing undersupply on London businesses*, May 2014

[101] ONS, *Annual Population Survey*

[102] London Councils, *London's skills challenge: meeting London's skills gap*; May 2013; *London Councils, Getting London Working, A Ten Point Plan to Improve Employment Provision*, October 2012

[103] See summary in *AOC, Briefing: Devolution of skills policy and funding– some practical issues*, November 2014

Given European law on the free movement of people, managing this skills challenge by closing London's borders, even if desirable, is not an option without giving up the economic benefits of EU membership. London's response must be to help Londoners compete successfully for work.

This is already an area that receives a lot of attention and funding. Over £550 million is spent on adult skills in London, with around 80% of this spend delivered through centrally (not locally) designed programmes[102]. Multiple reviews have argued for further devolution of skills budgets to local providers[103]. The arguments for such devolution are even stronger in London than elsewhere, not least because London's skills challenges are different from those faced in much of the UK, given the city's exceptional success in importing talent. However, further devolution of skills budgets and responsibilities will not fix this challenge alone; this needs to be combined with a broad reform agenda to ensure spending is as effective as possible at delivering employment outcomes. Elements of such reform could include:

- stretching targets for providers based around employment outcomes, not just skills levels or courses completed;
- more emphasis on ensuring skills provision maps to known skills gaps, with sector-specific, large-scale responses in shortage areas such as construction;
- improved labour market information and advice to help match skills demand to employment opportunities, for example through enhanced careers advice in schools;
- building a much stronger focus in provision on the "employability" skills (including business awareness and attitudes to work) being demanded by businesses today[104]; and
- much stronger vocational pathways, including an expanded and simplified apprenticeship system.

None of these ideas is new by itself. Change has proven hard to crystallise, not least because of the complex landscape of institutions in this area. Action will need collective commitment across a range of stakeholders. This issue needs the same kind of focus that the London Challenge gave to improvements in academic achievement in schools – combining experimentation on the ground, rapid feedback and learning with strong project management across multiple policy strands[105] .

LONDON'S ROLE IN THE WIDER UK ECONOMY

10. **Support UK-wide growth**: step up support to economic development across the UK, with a stronger role in promoting city devolution, forging regional co-operation and designing complementary growth strategies.

We describe above in Chapter 6 why a critical plank of London's economic strategy must be to work with other parts of the UK in leveraging London's strengths to support their own growth plans. This tenth priority area does not stand independently of the rest of this agenda. The other nine must also be delivered in a way that benefits both London and the UK. For example, actions that London could take to pursue its priorities in a way that supports the rest of the UK include:

- working with other cities on joint promotional campaigns in growth markets that emphasise the complementary strengths of London and other UK locations;
- ensuring London builds technical talent for the UK, not just for London, so the capital is exporting talent to (as well as importing talent from) emerging tech hubs across the country;
- playing an active role alongside other UK cities in building a nationwide approach to connectivity, as digital connectivity challenges are not unique to London;
- ensuring London-specific SME funding efforts are complementary to national institutions like the British Business Bank, and that successful policies used within or outside London are rapidly exported or imported elsewhere; and
- working more vigorously with other cities in advocating city-level devolution across the UK.

[104] See *CBI, Gateway to Growth, CBI/Pearson Education and Skills Survey 2014*, July 2014

[105] See for example, discussion in *Kidson & Norris, Institute for Government, Implementing the London Challenge*, July 2014

WHY DOES THIS AGENDA MATTER FOR LONDONERS?

For people who live in London:

- More house-building to make housing more affordable
- Faster investment in infrastructure for better quality of life
- Better support for developing your skills and finding work

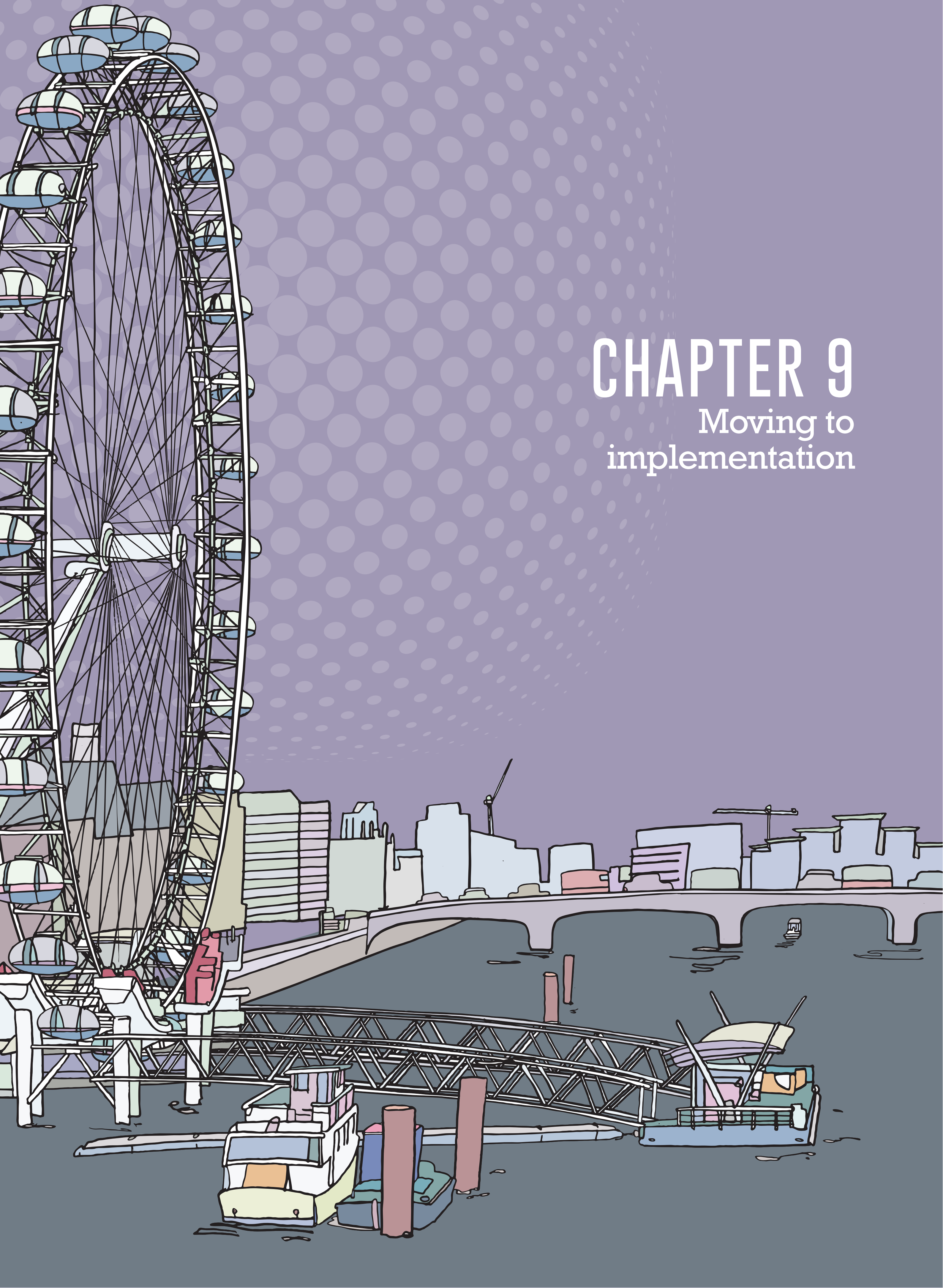
For people who work in London:

- Faster growth in jobs
- Job opportunities in a wider range of industries
- Easier commuting and home-working

For people who run businesses in London:

- Easier access to global markets and global talent
- More skilled Londoners to fill vacancies and support growth
- Faster growth through better access to funding

CHAPTER 9
Moving to implementation



HOW WILL WE KNOW WE ARE MOVING IN THE RIGHT DIRECTION?

Given the specific focus of this plan, the ultimate measure of whether London has achieved success will be GVA, jobs creation and diversification as set out in Chapter 1:

- **the fastest income growth among cities of its scale and type**, with growth in GVA per head that is faster over the long-term than New York, Paris or Tokyo's, and that delivers more benefit to the wider UK;
- **job growth that translates into opportunity,** with employment rates higher than both the UK average and the equivalent rates in New York and Paris; and
- **diversity and resilience**, with strong performance across more of the economy in order to improve the city's resilience against crises, with no single sector driving more than 40% of GVA or jobs growth.

However, there are also leading indicators that will help London understand whether the city is moving in the right direction on tomorrow's critical sources of growth. Such indicators would not supersede the range of metrics already tracked by the GLA and others, but would be designed specifically to help the London Enterprise Panel review London's progress against this agenda.

The right indicator or indicators for each area will need to be agreed as part of the development of specific action plans. In Figure 33 we list a suggestion for these indicators aligned against each priority area, recognising that the implementation teams will want to refine this list over time and potentially have more than one metric per area. Some of these metrics are relative to other cities – particularly where London is competing for a global resource like visitors or HQs; others are absolute, where the question is not whether London is doing better than others but whether it is achieving its own internal goals.

Notably, some of the metrics are not tracked today – we have tried to use pre-existing metrics wherever they are broadly fit-for-purpose, but in some areas there is a likely need for new things to be tracked to improve London's understanding of the city's underlying performance.

We have also looked at London's performance against these indicators today – which reinforces that the city is performing well today against its aspiration to be the leading global hub, but that there are gaps in delivering against both its potential as a centre for technology and its requirements as a city that works.

Figure 33

WHAT WOULD SUCCESS LOOK LIKE – POTENTIAL METRICS AND TARGETS

Themes	Action	Potential goal and associated metric	How is London performing today?
The Global Hub	1 Stay open for business	**Clear lead as number 1 global financial and business centre** Highest employment in financial and professional services	✓
	2 Focus on emerging markets	**First choice location for emerging market companies** New measure of Fortune 500 emerging market companies in London	?
	3 Improve global access	**Leading destination for international visitors** Ranking in Global Cities Destination Index overnight visitors	✓
The Creative Engine	4 Build more technical talent	**Technical skills not holding back growth** New measure of technical skills shortages in London	✗
	5 Improve digital connectivity	**Over 50% take-up of Ethernet or high-speed broadband** % take-up across Greater London by consumers and businesses	✗
	6 Improve funding for growing SMEs	**Creating twice as many new £100 million businesses** New measure of number of companies crossing a revenue threshold	?
The City that Works	7 Secure long-term infrastructure investment	**Fiscal devolution agreed with national government** Proportion of revenue from own sources (not central transfers)	✗
	8 Accelerate housing delivery	**50,000 new homes per year in Greater London** Number of new homes in Greater London, as tracked by GLA	✗
	9 Develop Londoners' employability	**London unemployment below UK average** Unemployment rate by region	✗

✓ Hitting target ✗ Missing target ? Current status not measured

WHAT WILL IT TAKE TO GET THERE?

Economic growth planning is not a one-off project, and this agenda will need continuing work both to develop and implement the actions that sit behind it, and to ensure it remains robust as it is tested with further stakeholders and against new circumstances.

For London in particular, there is no institution that can naturally own this entire plan. The London Enterprise Panel (which advises the Mayor on growth) is the natural home for driving this agenda, but needs to do so by working in conjunction with public and private sector stakeholders in each area, and by bringing in new institutional capacity to drive implementation. Overall oversight will be designed to sustain the planning process over time, to track progress against the priorities and to ensure stakeholders are both aligned with the plan and accountable for delivery.

It is ultimately the launch of specific initiatives, involving targeted action to address these priorities, which will determine success. We recognise that these priorities will need quite different delivery approaches to reflect their different areas of focus. For example, some of these priorities are essentially about influencing and advocacy, while others will entail direct delivery within London. Equally, for some of the priority areas there are existing organisations with relatively clear ownership and responsibility, while others have no existing point of ownership.

Each initiative will be owned by an appropriate team, which might be private, public or a mix of the two, depending on the nature of the area. The initiative leader(s) will need to develop business plans, raise resources, define milestones, lead implementation, and track progress for each initiative. We hope that this agenda can command broad support, and that these areas of focus can drive action across both economic and political cycles.

WHAT HAS BEEN CRITICAL IN OTHER CITIES' IMPLEMENTATION APPROACHES?

1. **Strong business support** – successful implementation plans identify the key business leaders who have the appetite, resources, network and influence to become active sponsors of the plan and invest in seeing the plan through.
2. **A clear road map and scorecard** – just as any private sector organisation has a clear road map, with a set of milestones and metrics, successful city plans have a clear implementation plan with a set of performance indicators to track progress. This enables key stakeholders to hold the plan and its relevant sponsors to account, track progress transparently and incentivise delivery.
3. **Early progress** – momentum and tangible progress against actions within the first 12 months sets the tone for the rest of the implementation timeline. Therefore it is important to demonstrate quick wins and sufficient progress in a few areas rather than little progress across all actions.
4. **Sufficient human and financial resources** – getting the right level of resources, capabilities and the right governance model requires continual investment and renewal – we observed that often times the investment required in delivering the plan is underestimated.
5. **Savvy communications and engagement** – interest is difficult to sustain over the longer run – especially as the plan competes with multiple priorities and interests and lasts across political cycles.

This agenda is designed to deliver a stronger economy for London, making a stronger contribution to the UK. Successful delivery would mean more employment opportunities and a greater variety of work for Londoners; easier and faster growth for business owners; and more affordable housing and better transportation across the South-East. Turning the agenda into action will require involvement from a broad set of stakeholders and an investment of time and energy from groups across London. We believe the prize is worth it.

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ORGANISATIONS CONSULTED

Representatives from the organisations listed below were consulted during the development of this report. Inclusion on this list does not, of course, imply endorsement of the report's conclusions.

3i Group plc
Abellio
Accenture
Addleshaw Goddard LLP
AECOM
Allen & Overy LLP
Alliance Boots
Almacantar
Alstom UK Ltd
Anthology London
Aon
Archial NORR
Argent (Property Development) Services LLP
Arizion
ARM
Arup
Asda Group Ltd
Ashurst LLP
Associated British Foods
AstraZeneca
Atkins
Atos
Avanta Serviced Office Group plc
Aviva
AXA Art Insurance Ltd
Baccma Consulting
Baker Tilly
Ballymore Group
BAM Nuttall
Bank of America Merrill Lynch
Barclays
Barnet and Southgate College
Barratt London
Battersea Power Station
BBC
Bechtel
Benoy
Berkeley Group
Berwin Leighton Paisner
Bircham Dyson Bell
Birkbeck College
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BNY Mellon
British Land
British Transport Police
Brookfield Multiplex
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Business Design Centre Group
Cabinet Office
Camden Town Unlimited
Canary Wharf Group plc
Capital & Counties Properties plc
Carmichael Fisher Ltd
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Centre for Cities
Centre for London
CGI IT UK Limited
CH2M HILL
Chelsea Football Club
Circle Housing Group PLC
Cisco
Citigroup
City & Islington College
City of London Corporation
City University London
CLS Holdings plc
Coast to Capital Local Enterprise Partnership
Cofely GDF SUEZ
College of Haringey, Enfield and North East London
D & D London
Decision Strategies International
Delancey Real Estate Asset Management Limited
Deloitte LLP
Dentons
Department for Business, Innovation and Skills
Department for Communities and Local Government
Department of Transport
Derwent London plc
Development Securities PLC
DHL UK & Ireland
DLA Piper UK LLP
DP9
DSI
easyJet plc
EC Harris
Edelman
EDF Energy Plc
Education Endowment Foundation
Edwardian Group London
EE Ltd
Enders Analysis
Enterprise M3 Local Enterprise Partnership
Europcar UK Group
European Land and Property Limited
Eurostar International Limited
Eversheds
ExCeL London

Exterion Media
EY
Farrells
Federation of Small Businesses
Financial Reporting Council
Financial Times
FirstGroup plc
Fishburn
Fortnum & Mason
Four Communications
Freshfields Bruckhaus Deringer
Frogmore Property Company
FTI Consulting
GE Capital Bank
Gensler
Gerald Eve LLP
GL Hearn
Glasgow City Council
Global Aerospace
Go-Ahead Group plc
Google
Grainger plc
Great Portland Estates Plc
Greater London Authority
Grosvenor
GSK plc
GVA
Hammerson PLC
Harrods
Harrow College
Heathrow Airport Holdings Limited
Heathrow Hub
Helical Bar PLC
Heron International
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Hitachi Rail Europe
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Hogan Lovells
Home Office
Honeyslug
HS1 Limited
HSBC Bank
Hyperoptic Limited
Imperial College London
Indigo Planning
Institute of Education
Intel Corporation (UK) Ltd
International Airlines Group
International Business Advisory Council
Institute of Directors
J Sainsbury PLC
Jacobs
John Lewis Partnership
Jones Lang LaSalle
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London Stansted Airport
Mace
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Magic Lantern
Manpower UK Ltd
Marks and Spencer
McDonald's Restaurants Ltd
Merlin Entertainments Group
Metropolitan Housing Group
Middlesex University
Ministry of Sound
Mitsui Fudosan UK
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Nomura International
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Norton Rose Fulbright LLP

Notting Hill Housing Group
Odgers Berndtson
Old Mutual Wealth
Oliver Wyman
Parsons Brinckerhoff
Peabody
Pearson
Phase4 Partners
Pinsent Masons LLP
Places for People
Powerday
Primark
Prudential
PricewaterhouseCoopers
Qatari Diar Development Company (UK)
Quintain
Quod
Regus UK
Rider Levett Bucknall UK
Rolls Royce
Royal Borough of Kensington & Chelsea
Royal Brompton & Harefield NHS Foundation Trust
Santander Corporate Banking
Savills
Schneider Electric (UK) Ltd
School of Oriental and African Studies
SEGRO
Siemens
Silvertown Partnership LLP
Sir Robert McAlpine
Skanska
Smith & Williamson
Soho Estates
South East Local Enterprise Partnership
South Thames College
Stork & May LLP
Swan Housing Association
TATA Capital Plc
Tech City News
Tech Hub
Tech London Advocates
TelecityGroup
Telefonica S.A.
Terence O'Rourke
Tesco
Thales UK
Thames Tideway Tunnel
Thames Valley Berkshire Local Enterprise Partnership
Thames Water Utilities
The Bank of England
The Business of Cities Ltd
The Cadogan Estate
TheCityUK
The Collective Ltd
The Crown Estate
The Howard de Walden Estate
The London Enterprise Panel
The Nichols Group
The O2
The Portman Estate
The Prince's Trust
The Queen Elizabeth II Conference Centre
The Royal Bank of Scotland
The Wellcome Trust
Tilfen Land
Tottenham Hotspur Football Club
Transport for London
Tristan Capital Partners
TUC Southern & Eastern Region
Turley
Turner & Townsend
UCL
UK Power Networks
Unilever
UNITE Group
University of Cambridge
University of East London
University of London
University of Roehampton
Urbanest UK Limited
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Westfield Group
Whitbread plc
Willis
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WPP Group
Wragge Lawrence Graham & Co LLP
WSP Group
Xooloo

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SIC CODES USED FOR DATA ANALYSIS

SIC CODES USED FOR DATA FROM 2000-07
SIC 2003 CLASSIFICATION

Industry	SIC 03	Description	Weight
Financial services		**Overall figures from ONS used instead of detailed breakdown**	
Tourism	55.1	Hotels	56%
Tourism	55.2	Camping sites and other provision of short-stay accommodation	56%
Tourism	55.3	Restaurants	41%
Tourism	55.4	Bars	41%
Tourism	60	Land transport; transport via pipelines	19%
Tourism	61	Water transport	19%
Tourism	62	Air transport	19%
Tourism	63.3	Activities of travel agencies and tour	100%
Tourism	92.3	Other entertainment activities	13%
Tourism	92.5	Library, archives, museums and other	13%
Tourism	92.7	Other recreational activities	13%
Tourism	92.6	Sporting activities	13%
Tourism	93.04	Physical well-being activities	13%
Creative (excl. tech)	74.4	Advertising	100%
Creative (excl. tech)	74.2	Architectural and engineering activities	100%
Creative (excl. tech)	36.2	Manufacture of jewellery and related articles	100%
Creative (excl. tech)	92.1	Motion picture and video activities	100%
Creative (excl. tech)	92.2	Radio and television activities	100%
Creative (excl. tech)	74.81	Photographic activities	100%
Creative (excl. tech)	22.11	Publishing of books	100%
Creative (excl. tech)	22.12	Publishing of newspapers	100%
Creative (excl. tech)	22.13	Publishing of journals and periodicals	100%
Creative (excl. tech)	22.15	Other publishing	100%
Creative (excl. tech)	92.5	Library, archives, museums and other	87%
Creative (excl. tech)	22.14	Publishing of sound recordings	100%
Creative (excl. tech)	92.3	Other entertainment activities	87%
Digital technologies	30	Manufacture of office machinery and computers	100%
Digital technologies	31	Manufacture of electrical machinery and apparatus not elsewhere classified	100%
Digital technologies	32	Manufacture of radio, television and communication equipment and apparatus	100%
Digital technologies	33.2	Manufacture of instruments and appliances for measuring, checking, testing, navigating and other purposes, except industrial process control equipment	100%
Digital technologies	33.3	Manufacture of industrial process control equipment	100%
Digital technologies	72.2	Publishing of software	100%
Digital technologies	72.3	Data processing	100%
Digital technologies	72.4	Database activities	100%
Digital technologies	72.6	Other computer related activities	100%
Professional services	74.11	Legal activities	100%
Professional services	74.12	Accounting, book-keeping and auditing	100%
Professional services	74.14	Business and management consultancy	100%
Real estate	70	Real estate activities	100%
Life sciences (incl. HE and healthcare)	24.41	Manufacture of basic pharmaceuticals	100%
Life sciences (incl. HE and healthcare)	24.42	Manufacture of pharmaceutical preparations	100%

Life sciences (incl. HE and healthcare)	33	Manufacture of medical, precision and optical instruments, watches and clocks	100%
Life sciences (incl. HE and healthcare)	85.1	Human health activities	100%
Life sciences (incl. HE and healthcare)	85.2	Veterinary activities	100%
Life sciences (incl. HE and healthcare)	73.1	Research and experimental development	100%
Life sciences (incl. HE and healthcare)	80.3	Higher education	100%
Life sciences (incl. HE and healthcare)	51.46	Wholesale of pharmaceutical goods	100%
Wholesale and retail	50	Sale, maintenance and repair of motor	100%
Wholesale and retail	51	Wholesale trade and commission	100%
Wholesale and retail	52	Retail trade, except of motor vehicles	100%
Wholesale and retail	51.46	Wholesale of pharmaceutical goods	-100%
Transportation	60	Land transport; transport via pipelines	81%
Transportation	61	Water transport	81%
Transportation	62	Air transport	81%
Transportation	63	Supporting and auxiliary transport activities;	100%
Transportation	64	Post and telecommunications	100%
Construction	F	Construction	100%
Manufacturing	D	Manufacturing	100%
Manufacturing	24.41	Manufacture of basic pharmaceuticals	-100%
Manufacturing	24.42	Manufacture of pharmaceutical preparations	-100%
Manufacturing	33	Manufacture of medical, precision and optical instruments, watches and clocks	-100%
Manufacturing	30	Manufacture of office machinery and computers	-100%
Manufacturing	31	Manufacture of electrical machinery and apparatus not elsewhere classified	-100%
Manufacturing	32	Manufacture of radio, television and communication equipment and apparatus	-100%
Manufacturing	33.2	Manufacture of instruments and appliances for measuring, checking, testing, navigating and other purposes, except industrial process control equipment	-100%
Manufacturing	33.3	Manufacture of industrial process control equipment	-100%

SIC CODES USED FOR DATA FROM 2008-12
SIC 2007 CLASSIFICATION

Industry	SIC 07	Description	Weight
Financial services		Overall figures from ONS used instead of detailed breakdown	
Tourism	55	Accommodation	100%
Tourism	561	Restaurants and mobile food service activities	41%
Tourism	563	Beverage serving activities	41%
Tourism	49	Land transport and transport via pipelines	19%
Tourism	50	Water transport	19%
Tourism	51	Air transport	19%
Tourism	791	Travel agency and tour operator activities	100%
Tourism	90	Creative, arts and entertainment activities	13%
Tourism	91	Libraries, archives, museums and other cultural activities	13%
Tourism	92	Gambling and betting activities	13%
Tourism	93	Sports activities and amusement and recreation activities	13%
Creative (excl. tech)	7311	Advertising agencies	100%
Creative (excl. tech)	7312	Media representation	100%
Creative (excl. tech)	7111	Architectural activities	100%
Creative (excl. tech)	3212	Manufacture of jewellery and related articles	100%
Creative (excl. tech)	741	Specialised design activities	100%
Creative (excl. tech)	5911	Motion picture, video and television programme production activities	100%
Creative (excl. tech)	5912	Motion picture, video and television programme post-production	100%
Creative (excl. tech)	5913	Motion picture, video and television programme distribution	100%
Creative (excl. tech)	5914	Motion picture projection activities	100%
Creative (excl. tech)	601	Radio broadcasting	100%
Creative (excl. tech)	602	Television programming and broadcasting activities	100%
Creative (excl. tech)	742	Photographic activities	100%
Creative (excl. tech)	5811	Book publishing	100%
Creative (excl. tech)	5812	Publishing of directories and mailing lists	100%
Creative (excl. tech)	5813	Publishing of newspapers	100%
Creative (excl. tech)	5814	Publishing of journals and periodicals	100%
Creative (excl. tech)	5819	Other publishing activities	100%
Creative (excl. tech)	743	Translation and interpretation activities	100%
Creative (excl. tech)	9101	Library and archive activities	87%
Creative (excl. tech)	9102	Museum activities	87%
Creative (excl. tech)	592	Sound recording and music publishing activities	100%
Creative (excl. tech)	8552	Cultural education	100%
Creative (excl. tech)	9001	Performing arts	87%
Creative (excl. tech)	9002	Support activities to performing arts	87%
Creative (excl. tech)	9003	Artistic creation	87%
Creative (excl. tech)	9004	Operation of arts facilities	87%
Digital technologies	2611	Manufacture of electronic components	100%
Digital technologies	2612	Manufacture of loaded electronic boards	100%
Digital technologies	262	Manufacture of computers and peripheral equipment	100%
Digital technologies	264	Manufacture of consumer electronics	100%
Digital technologies	2651	Manufacture of instruments and appliances for measuring, testing and navigation	100%
Digital technologies	268	Manufacture of magnetic and optical media	100%
Digital technologies	3313	Repair of electronic and optical equipment	100%
Digital technologies	5821	Publishing of computer games	100%

Digital technologies	5829	Other software publishing	100%
Digital technologies	6201	Computer programming activities	100%
Digital technologies	6202	Computer consultancy activities	100%
Digital technologies	6203	Computer facilities management activities	100%
Digital technologies	6209	Other information technology and computed service activities	100%
Digital technologies	6311	Data processing, hosting and related activities	100%
Digital technologies	6312	Web portals	100%
Digital technologies	9511	Repair of computers and peripheral equipment	100%
Financial services	641	Monetary intermediation	100%
Financial services	642	Activities of holding companies	100%
Financial services	643	Trusts, funds and similar financial entities	100%
Financial services	649	Other financial service activities, except insurance and pension funding	100%
Financial services	661	Activities auxiliary to financial services, except insurance and pension funding	100%
Financial services	663	Fund management activities	100%
Insurance	651	Insurance	100%
Insurance	652	Reinsurance	100%
Insurance	653	Pension funding	100%
Insurance	662	Activities auxiliary to insurance and pension funding	100%
Professional services	69	Legal and accounting activities	100%
Professional services	702	Management consultancy activities	100%
Real estate	68	Real estate activities	100%
Life sciences	21	Manufacture of basic pharmaceutical products and pharmaceutical preparations	100%
Life sciences	86	Human health activities	100%
Life sciences	75	Veterinary activities	100%
Life sciences	266	Manufacture of irradiation, electromedical and electrotherapeutic equipment	100%
Life sciences	267	Manufacture of optical instruments and photographic equipment	100%
Life sciences	325	Manufacture of medical and dental instruments and supplies	100%
Life sciences	721	Research and experimental development on natural sciences and engineering	100%
Life sciences	854	Higher education	100%
Life sciences	4646	Wholesale of pharmaceutical goods	100%
Life sciences	4774	Retail sale of medical and orthopaedic goods in specialised stores	100%
Wholesale and retail	4511	Sale of cars and light motor vehicles	100%
Wholesale and retail	4519	Sale of other motor vehicles	100%
Wholesale and retail	452	Maintenance and repair of motor vehicles	100%
Wholesale and retail	4531	Wholesale trade of motor vehicle parts and accessories	100%
Wholesale and retail	4532	Retail trade of motor vehicle parts and accessories	100%
Wholesale and retail	454	Sale, maintenance and repair of motorcycles and related parts and accessories	100%
Wholesale and retail	4611	Agents involved in the sale of agricultural raw materials, live animals, textile raw materials and semi-finished goods	100%
Wholesale and retail	4612	Agents involved in the sale of fuels, ores, metals and industrial chemicals	100%
Wholesale and retail	4613	Agents involved in the sale of timber and building materials	100%
Wholesale and retail	4614	Agents involved in the sale of machinery, industrial equipment, ships and aircraft	100%
Wholesale and retail	4615	Agents involved in the sale of furniture, household goods, hardware and ironmongery	100%
Wholesale and retail	4616	Agents involved in the sale of textiles, clothing, fur, footwear and leather goods	100%
Wholesale and retail	4617	Agents involved in the sale of food, beverages and tobacco	100%

Wholesale and retail	4618	Agents specialised in the sale of other particular products	100%
Wholesale and retail	4619	Agents involved in the sale of a variety of goods	100%
Wholesale and retail	4621	Wholesale of grain, unmanufactured tobacco, seeds and animal feeds	100%
Wholesale and retail	4622	Wholesale of flowers and plants	100%
Wholesale and retail	4623	Wholesale of live animals	100%
Wholesale and retail	4624	Wholesale of hides, skins and leather	100%
Wholesale and retail	4631	Wholesale of fruit and vegetables	100%
Wholesale and retail	4632	Wholesale of meat and meat products	100%
Wholesale and retail	4633	Wholesale of dairy products, eggs and edible oils and fats	100%
Wholesale and retail	4634	Wholesale of beverages	100%
Wholesale and retail	4635	Wholesale of tobacco products	100%
Wholesale and retail	4636	Wholesale of sugar and chocolate and sugar confectionery	100%
Wholesale and retail	4637	Wholesale of coffee, tea, cocoa and spices	100%
Wholesale and retail	4638	Wholesale of other food, including fish, crustaceans and molluscs	100%
Wholesale and retail	4639	Non-specialised wholesale of food, beverages and tobacco	100%
Wholesale and retail	4641	Wholesale of textiles	100%
Wholesale and retail	4642	Wholesale of clothing and footwear	100%
Wholesale and retail	4643	Wholesale of electrical household appliances	100%
Wholesale and retail	4644	Wholesale of china and glassware and cleaning materials	100%
Wholesale and retail	4645	Wholesale of perfume and cosmetics	100%
Wholesale and retail	4647	Wholesale of furniture, carpets and lighting equipment	100%
Wholesale and retail	4648	Wholesale of watches and jewellery	100%
Wholesale and retail	4649	Wholesale of other household goods	100%
Wholesale and retail	4651	Wholesale of computers, computer peripheral equipment and software	100%
Wholesale and retail	4652	Wholesale of electronic and telecommunications equipment and parts	100%
Wholesale and retail	4661	Wholesale of agricultural machinery, equipment and supplies	100%
Wholesale and retail	4662	Wholesale of machine tools	100%
Wholesale and retail	4663	Wholesale of mining, construction and civil engineering machinery	100%
Wholesale and retail	4664	Wholesale of machinery for the textile industry and of sewing and knitting machines	100%
Wholesale and retail	4665	Wholesale of office furniture	100%
Wholesale and retail	4666	Wholesale of other office machinery and equipment	100%
Wholesale and retail	4669	Wholesale of other machinery and equipment	100%
Wholesale and retail	4671	Wholesale of solid, liquid and gaseous fuels and related products	100%
Wholesale and retail	4672	Wholesale of metals and metal ores	100%
Wholesale and retail	4673	Wholesale of wood, construction materials and sanitary equipment	100%
Wholesale and retail	4674	Wholesale of hardware, plumbing and heating equipment and supplies	100%
Wholesale and retail	4675	Wholesale of chemical products	100%
Wholesale and retail	4676	Wholesale of other intermediate products	100%
Wholesale and retail	4677	Wholesale of waste and scrap	100%
Wholesale and retail	469	Non-specialised wholesale trade	100%
Wholesale and retail	4711	Retail sale in non-specialised stores with food, beverages or tobacco predominating	100%
Wholesale and retail	4719	Other retail sale in non-specialised stores	100%
Wholesale and retail	4721	Retail sale of fruit and vegetables in specialised stores	100%
Wholesale and retail	4722	Retail sale of meat and meat products in specialised stores	100%
Wholesale and retail	4723	Retail sale of fish, crustaceans and molluscs in specialised stores	100%
Wholesale and retail	4724	Retail sale of bread, cakes, flour confectionery and sugar confectionery in specialised stores	100%
Wholesale and retail	4725	Retail sale of beverages in specialised stores	100%
Wholesale and retail	4726	Retail sale of tobacco products in specialised stores	100%
Wholesale and retail	4729	Other retail sale of food in specialised stores	100%

Wholesale and retail	473	Retail sale of automotive fuel in specialised stores	100%
Wholesale and retail	4741	Retail sale of computers, peripheral units and software in specialised stores	100%
Wholesale and retail	4742	Retail sale of telecommunications equipment in specialised stores	100%
Wholesale and retail	4743	Retail sale of audio and video equipment in specialised stores	100%
Wholesale and retail	4751	Retail sale of textiles in specialised stores	100%
Wholesale and retail	4752	Retail sale of hardware, paints and glass in specialised stores	100%
Wholesale and retail	4753	Retail sale of carpets, rugs, wall and floor coverings in specialised stores	100%
Wholesale and retail	4754	Retail sale of electrical household appliances in specialised stores	100%
Wholesale and retail	4759	Retail sale of furniture, lighting equipment and other household articles in specialised stores	100%
Wholesale and retail	4761	Retail sale of books in specialised stores	100%
Wholesale and retail	4762	Retail sale of newspapers and stationery in specialised stores	100%
Wholesale and retail	4763	Retail sale of music and video recordings in specialised stores	100%
Wholesale and retail	4764	Retail sale of sporting equipment in specialised stores	100%
Wholesale and retail	4765	Retail sale of games and toys in specialised stores	100%
Wholesale and retail	4771	Retail sale of clothing in specialised stores	100%
Wholesale and retail	4772	Retail sale of footwear and leather goods in specialised stores	100%
Wholesale and retail	4773	Dispensing chemist in specialised stores	100%
Wholesale and retail	4775	Retail sale of cosmetic and toilet articles in specialised stores	100%
Wholesale and retail	4776	Retail sale of flowers, plants, seeds, fertilisers, pet animals and pet food in specialised stores	100%
Wholesale and retail	4777	Retail sale of watches and jewellery in specialised stores	100%
Wholesale and retail	4778	Other retail sale of new goods in specialised stores	100%
Wholesale and retail	4779	Retail sale of second-hand goods in stores	100%
Wholesale and retail	4781	Retail sale via stalls and markets of food, beverages and tobacco products	100%
Wholesale and retail	4782	Retail sale via stalls and markets of textiles, clothing and footwear	100%
Wholesale and retail	4789	Retail sale via stalls and markets of other goods	100%
Wholesale and retail	4791	Retail sale via mail order houses or via Internet	100%
Wholesale and retail	4799	Other retail sale not in stores, stalls or markets	100%
Transportation	49	Land transport and transport via pipelines	81%
Transportation	50	Water transport	81%
Transportation	51	Air transport	81%
Transportation	52	Warehousing and support activities for transportation	100%
Transportation	53	Postal and courier activities	100%
Construction	41	Construction of buildings	100%
Construction	42	Civil engineering	100%
Construction	43	Specialised construction activities	100%
Manufacturing	C	Manufacturing	100%
Manufacturing	2611	Manufacture of electronic components	-100%
Manufacturing	2612	Manufacture of loaded electronic boards	-100%
Manufacturing	262	Manufacture of computers and peripheral equipment	-100%
Manufacturing	264	Manufacture of consumer electronics	-100%
Manufacturing	2651	Manufacture of instruments and appliances for measuring, testing and navigation	-100%
Manufacturing	268	Manufacture of magnetic and optical media	-100%
Manufacturing	3313	Repair of electronic and optical equipment	-100%
Manufacturing	21	Manufacture of basic pharmaceutical products and pharmaceutical preparations	-100%
Manufacturing	266	Manufacture of irradiation, electromedical and electrotherapeutic equipment	-100%
Manufacturing	267	Manufacture of optical instruments and photographic equipment	-100%
Manufacturing	325	Manufacture of medical and dental instruments and supplies	-100%

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