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DECENTRALISING BRITAIN

**THE 'BIG PUSH' TOWARDS
INCLUSIVE PROSPERITY**

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ABOUT THE IPPR ECONOMICS PRIZE

The inaugural IPPR Economics Prize invited entries in response to the question: “What would be your radical plan to force a step change in the quality and quantity of the UK’s economic growth?”

We wanted to know whether the downward trend in the rate of economic growth can be reversed, and if so, how this can be done. Is it realistic, desirable and achievable for the UK economy to grow at 3 or 4 per cent in the 2020s? We wanted to capture the best new thinking out there.

Crucially, we wanted to understand not just what policies could raise the growth rate, but also how growth could translate into higher pay for ordinary households and reduced inequalities across regions and generations. We wanted to know whether such proposals could be environmentally sustainable, accelerate decarbonisation, and ensure that the UK meets its international commitments and its responsibilities to present and future generations.

We offered a main prize-pot of £100,000, with a dedicated under-25s prize of £25,000 and a runners-up prize also of £25,000. IPPR and the judging panel, chaired by Stephanie Flanders, with John Eatwell, John Mills and Helena Morrissey, examined over 200 ideas and ultimately awarded prizes to four entries: two winners of the main prize, an under-25 and a runner-up.

The IPPR Economics Prize was generously supported by John Mills, The de Laszlo Foundation, the Nigel Vinson Charitable Trust and Christopher Nieper.

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SUMMARY

The UK economy is chronically ill. A record-strong labour market masks a worrying trend of persistently low growth in labour productivity.

The long-term slowdown in productivity growth is a global phenomenon, but the UK's weakness stands out. The country has lower productivity than its peers, suggesting greater scope for growth. However, this gap has widened further, as the UK's productivity stagnated after 2008.

The UK's 'lost decade' cannot be explained by the Great Recession alone. The stagnation is structural and has origins long before the financial crisis. Standard fiscal and monetary tools cannot address the UK's low levels of investment, pervasive skills mismatches, corporate short-termism and impaired financial intermediation.

A significant part of the slowdown is attributable to the loss of momentum in the most productive firms and sectors, which had driven growth since the 1990s, masking the stagnation in the rest of the economy.

These decades of divergence between firms have also had a distinct regional dimension in the UK. Jobs in high-productivity sectors are disproportionately located in the south east regions of England. Moreover, it is the most productive firms *within* these sectors that are based in London, the South East, and the East of England.

Globalisation and technological progress have led to a concentration of economic activity in other countries as well. However, the UK stands out as the most regionally unequal country in Europe – a disparity that has widened since the Great Recession.

We see widening regional disparities as one of the defining challenges of contemporary capitalism – its persistence compromises social cohesion, delegitimises capitalism and promotes extreme alternatives that are destructive in the long-term.

We believe a new model must unlock a step change in UK growth – one that relies on a broad-based productivity growth across many businesses and industries; one that includes 'left behind' communities and promotes the fundamental idea that decisions are best made by those directly affected by them. At the same time, redesigning the UK's economic model provides a unique opportunity to address the UK's international and moral obligation to decarbonise. To this end, we suggest a set of policies under the theme of decentralisation to radically restructure and rebalance the economy to achieve broad-based, long-term and more sustainable prosperity.

We define decentralisation in the broadest sense, advocating the decentralisation of economic activity, political governance, knowledge, finance, and capital in the UK.

Firstly, we believe that resources in many regions are inefficiently utilised. A well-thought-out plan for spatial decentralisation can solve this mismatch of economic activity and deliver a further economic dividend by reducing congestion, pollution, and all related economic, health, and environmental costs.

However, coordination failures and a capital deficit in many English regions, Wales, Scotland and Northern Ireland, means that the benefits of spatial decentralisation cannot be achieved through market forces alone. We therefore propose a

progressive profile of investment in transport, housing and digital infrastructure outside the south east regions to boost the productivity of these regions and retain the benefits of connectivity to London ‘remotely’. To facilitate the redistribution of economic activity, we will offer government-backed financing to encourage the mobility of credit-constrained households and firms. We also endorse targeted relocation of public institutions to maintain sectoral clusters by encouraging the coordinated relocation of interdependent businesses.

The large economic imbalances in the UK originate also from the underrepresentation of regional and local interests in the political system. To make spending decisions more accountable and responsive to local needs, we propose further decentralisation of public expenditure from central to local government.

Large public investments in economic development tend to cross local authority boundaries and scale is needed to deliver public services efficiently. We therefore promote the formalisation of ‘combined local authorities’ with elected representatives into a new layer of regional government to deliver public expenditures and investments in economic development that are responsive to local needs.

Our policies further aim to boost innovation by opening access to knowledge. Collaboration between firms with knowledge and firms with complementary resources can facilitate better transmission of innovation and managerial best practice between firms. This can be achieved by reforming intellectual property protection to remove barriers to the reuse of ideas, reductions in the validity length of most patents, and a new system of compulsory licensing to encourage ‘downstream’ innovation and promote the commercial use of IP by other firms. A novel knowledge-sharing tax relief scheme, coupled with government-facilitated marketplaces, can also help encourage more business-to-business R&D cooperation whilst minimising tax abuse and wasteful investment duplication.

A more decentralised and diverse financial sector can reduce the UK’s vulnerability to global financial shocks and provide funding to small innovative firms currently starved of credit. We also envisage a greater role for finance that funds projects with greater social and environmental return. For example, we propose the setting up of a network of community banks that are tied in ownership to local authorities and have social as well as financial goals. Local intelligence allows community banks to offer loans at lower cost than traditional banks, crowd-in other sources of funding and generate wealth that is retained in communities. Additionally, scaling social impact investment can direct private capital to underfunded policy areas, freeing-up public funds in the process.

We also take the theme of decentralisation to the private sector, where the detached UK shareholder model has contributed to the macroeconomic picture of low investment and low productivity. Decentralising firm-level decision-making and widening the number of stakeholders influencing corporate decisions can boost private investment in capital and innovation, increase localisation, and reduce costly firm-stakeholder conflict.

Many of the policies we advocate have been suggested or even implemented before. However, these attempts have been piecemeal. Instead, decentralisation requires a coordinated effort – a concept that we term the ‘Big Push’. We therefore propose policies that collectively address each of the UK’s complex productivity problems. We believe a step change in the UK’s growth prospects is only possible with the kind of focused blueprint for radical restructuring and empowerment that our policy combination represents. Together, these policies also provide a unique opportunity to re-engineer the UK’s economic model towards greener growth by promoting long-term corporate decision-making and investments in low-carbon infrastructure.

The successful implementation of this model requires refocused public investment, legislative change, and limited constitutional reform. The implementation and impacts of these policies are long-term but achievable with affordable increases in public investment and a strategic focus from Westminster to catalyse the shift. The result will be an environmentally sustainable country whose population is prosperous, less economically divided and less disconnected from decisions over its future.

1. INTRODUCTION

The UK economy has had a split personality since the Great Recession, combining a record-strong labour market with historically low productivity growth. A solution to this 'productivity puzzle' has so far eluded policymakers, but it is indispensable for the country's future prosperity. In this report, we advance a bold set of policies to end the stagnation, while simultaneously redesigning the UK's economic model towards more inclusive and greener growth.

Decades of productivity divergence among British firms and an increasing concentration of highly productive businesses and industries in south east regions of England¹ have transformed the UK into the most regionally unequal country in Europe. The same period witnessed a decline in innovation and infrastructure spending, a concentration of knowledge in fewer firms, weakening local government, uncontrolled growth and consolidation of the financial sector, and a detached shareholding class monopolising corporate governance.

Our proposed remedy is simple: to decentralise the UK economy.

We recommend decentralisation in the broadest sense, going beyond the usual meaning of transferring political and fiscal governance from central to local government. Our proposal is more radical. We want to decentralise many more aspects of the UK economy than just political governance.

This report outlines our plan for the decentralisation of economic activity, political governance, knowledge, finance, and capital in the UK. Our ambition is to reduce the UK's economic dependence on the south east regions and rebalance growth across all regions. In addition, we want to decentralise political and corporate decision-making to bring it closer to those who are affected by it.

Our plan also targets knowledge and ideas, currently concentrated in too few hands. The proposed policies will facilitate a more efficient diffusion of innovation and best practice across the UK's firms. Other policies aim to decentralise the UK's financial sector, whose existing structure is failing the needs of the British economy. Finally, we want to encourage a broader distribution of power in corporate decision-making, giving more authority to stakeholders with a long-term outlook.

Many of the policies we advocate have been suggested or even implemented before. However, we will argue that they have not been successful because they were not applied simultaneously. To make decentralisation a success, a coordinated policy effort is required, which we refer to as the 'Big Push'.

Chapter 2 explains the causes underlying the stagnation of UK's labour productivity. Chapter 3 explains how decentralisation creates inclusive growth. Chapter 4 lays out our plan for regionalisation. Chapter 5 presents a strategy for decentralising fiscal and political governance. Chapter 6 outlines our plan for the decentralisation of knowledge. Chapter 7 explains how and why we intend to decentralise finance. In chapter 8, we explain our plan for decentralising capital through a reform of corporate governance. Chapter 9 puts forward the suggested phasing and implementation of the proposed policies. Finally, chapter 10 concludes.

¹ Unless specified otherwise, 'south east regions' refer to London, the South East and the south of East of England.

2.

THE UK'S PRODUCTIVITY CRISIS

Studying the different drivers of labour productivity, this chapter finds that a large share of the slowdown is explained by a loss of momentum in the most productive firms and sectors, as well as a broken transmission of innovation from frontier companies to laggards. Furthermore, the UK's economy-wide weaknesses include low investment in capital and innovation, skills mismatches, a business culture of short-termism, and impaired financial intermediation. The chapter also explains how several of these factors contributed to deepening the UK's regional inequalities.

2.1 AN ANATOMY OF THE PUZZLE

Long-term prosperity requires labour productivity growth

There are two ways in which an economy can grow: increasing labour supply or improving labour productivity. The first captures the total number of hours worked, while the latter measures the output created in one working hour.

In the last decade, the UK has been a strong performer in the first category.

- The share of working-age population in employment reached a record high of 76.1 per cent in early 2019 (ONS 2019a) – well above the OECD average of 68.5 per cent (OECD 2019a).
- The number of unemployed people in Britain dropped to levels last seen in 1975, at only 3.9 per cent (ONS 2019a). This figure itself is likely to overstate the true levels of joblessness as it includes the natural flow of people between jobs.
- Underemployment has been low. Since 2013, the dominant driver of jobs growth has been full-time employment rather than less secure forms of work (Strauss 2019).
- The average number of weekly working hours increased over the last decade, interrupting a decline that began in the early 19th century (ibid).

By contrast, growth in labour productivity has been stubbornly elusive. In 2018, GDP per hour worked was only 2.5 per cent above the 2007 pre-crisis peak (figure 2.1).

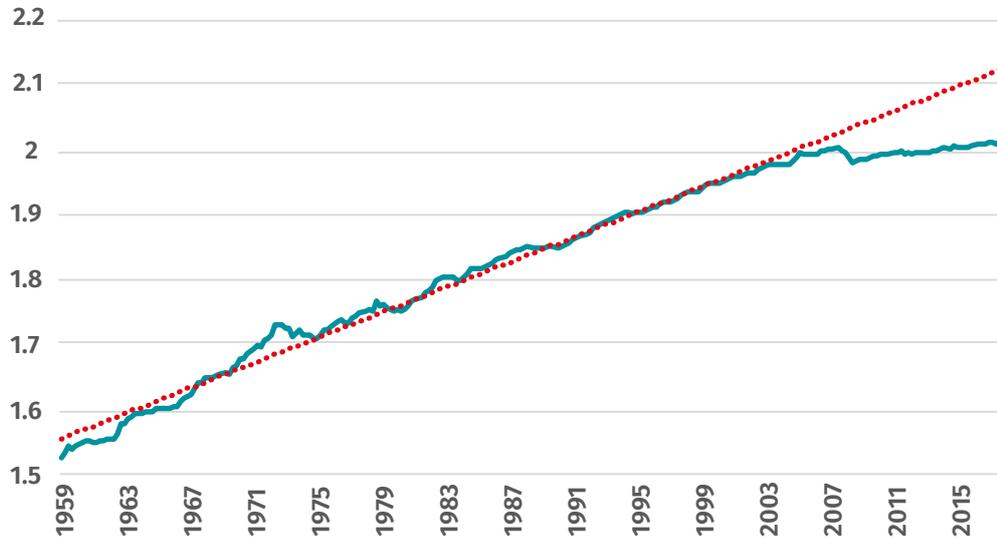
As the UK's record-setting labour market exhausts the possibility of further improvements, long-term prosperity can only be sustained through improvements in labour productivity.

Moreover, labour productivity is a more desirable source for economic growth. Firstly, longer working hours reduce leisure time and can therefore lead to lower levels of wellbeing. Increases to labour productivity face no such trade-off. Secondly, labour productivity is a key driver of wage growth. This is because workers will gain a share in the additional surplus that firms earn from increasing labour productivity.

Despite the central importance of productivity growth, successive governments have failed to end the stagnation in labour productivity.

FIGURE 2.1: UK LABOUR PRODUCTIVITY IS WELL BELOW THE AVERAGE GROWTH TREND

Log of UK labour productivity (1959–2018)



Note: Expressed in logs, a variable with constant growth rate displays linear growth. The dashed red line extrapolates the average growth trend of 1959–2007.

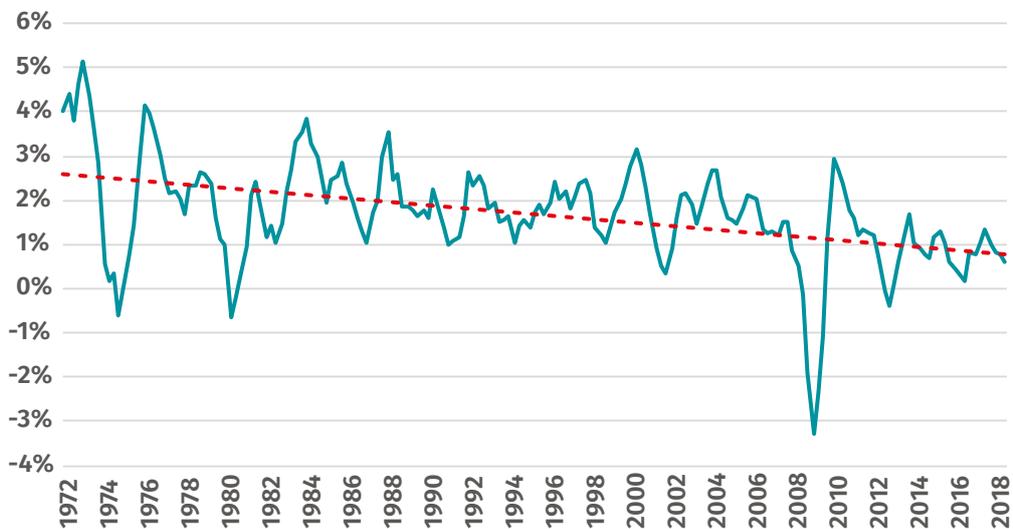
Source: ONS (2018a), authors' calculations

The productivity puzzle reflects problems specific to the UK

To some extent, the UK's productivity slowdown is part of a long-term, global trend. Figure 2.2 shows the year-on-year labour productivity growth in OECD countries. The long-term trend over the past four decades shows a gradual decline in the annual growth rate. Developing economies have experienced a similar dynamic (Haldane 2017).

FIGURE 2.2: PRODUCTIVITY GROWTH HAS BEEN DECLINING IN DEVELOPED ECONOMIES OVER THE PAST FOUR DECADES

Annual growth in labour productivity in the OECD

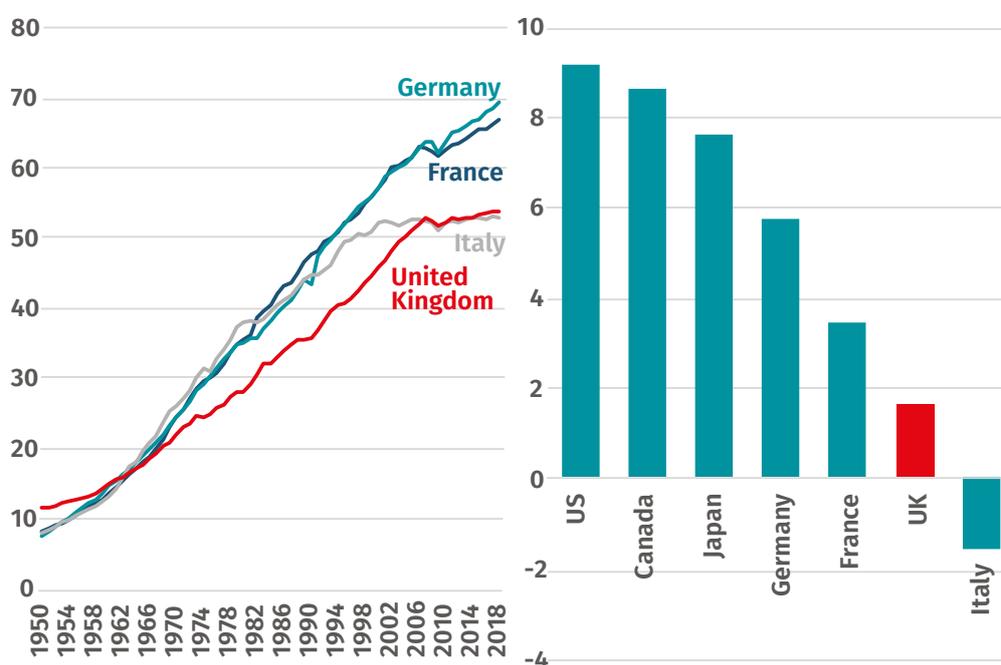


Source: OECD (2019b)

However, the UK has two weaknesses of its own. Firstly, compared to other major developed nations, the UK has a lower absolute level of productivity. An average British worker is 24 per cent less productive than an average French worker, 29 per cent less than a German worker, 34 per cent less than an American worker (The Conference Board 2019), and 18 per cent less productive than the average of the G7 group of world's largest developed economies (ONS 2019b).² The second UK-specific weakness is the markedly lower growth since 2008. This trend has further widened the productivity gap between the UK and its economic peers (see figure 2.3).

FIGURE 2.3: THE UK LOST ITS ROLE AS EUROPEAN PRODUCTIVITY LEADER IN THE 1960S AND THE GAP WITH MAJOR ECONOMIES CONTINUES TO WIDEN

Left: Labour productivity, index (1950–2018). Right: Change in labour productivity (2007–2016) (%)



Source: The Conference Board (2019) and ONS (2019b)

The productivity weakness is not cyclical

Cyclical explanations of the puzzle that focus on the weakness of demand since the 2008 crash are unsatisfactory. Recent evidence does not find idle resources in the economy.

On the labour side, the UK labour market is at near-full employment. There is also little evidence of there being underutilisation of workers in production. For example, employers may 'hoard' labour during recessions to maintain minimum business functions and to save hiring and firing costs (Barnett et al 2014a). Such effects may explain productivity slowdowns in the early years after a recession. However, the strength of the UK labour market since 2012 casts doubt on the idea that employees are underutilised (Barnett et al 2014b).

² But note that the gap is partially attributable to measurement inconsistencies. For example, when adjusted to a common measure, half of the gap with France disappears (Jackson 2018).

Companies may also under-utilise their capital (eg buildings, machinery) during recessions for the same reasons they hoard labour. Bank of England researchers, however, found “little evidence of spare capacity” in the UK economy as early as 2014 (Barnett et al 2014a). In quantitative terms, the underutilisation of production inputs (including labour and capital) are thought to explain only 17 per cent of the cumulative productivity gap compared to the pre-crisis trend (Goodridge et al 2016).

If the productivity stagnation cannot be attributed to cyclical drivers, monetary and fiscal levers are incapable of alleviating the UK’s productivity problem. When labour and capital are fully utilised in an economy, looser monetary policy only stokes inflation. Similarly, increased fiscal expenditure cannot aid long-term growth unless it is targeted at investments (that enhance innovation or infrastructure, for example).

Most of the productivity slowdown is attributable to total factor productivity

The UK productivity crisis is therefore of a structural nature, attributable to weaknesses on the supply (production) side rather than demand side.

To pinpoint the precise problem, it is helpful to consider the three supply-side drivers of labour productivity growth.

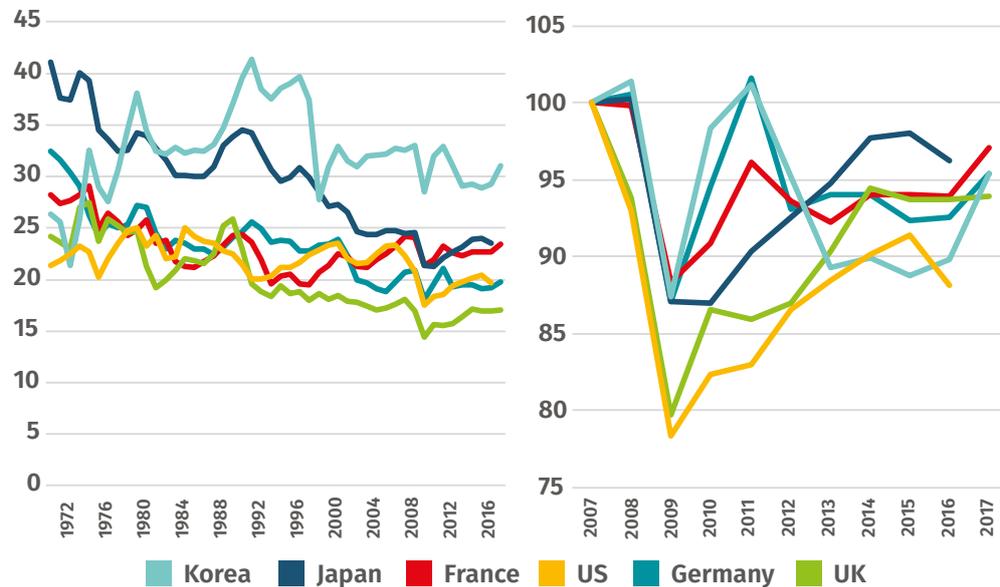
- Capital deepening refers to the growth of capital per worker. Capital – such as buildings, machines, vehicles, or computers – makes workers more productive.
- Labour quality captures workers’ skill acquired through education and training.
- Total-factor productivity (TFP) is a measure of technology, or the efficiency at which inputs (labour and capital) are utilised in the production process.

There is some evidence that lower growth of physical capital (capital deepening) contributed to the UK’s productivity slowdown. This has happened through several channels:

1. Underinvestment: firms’ investment in new machines and equipment tends to be pro-cyclical. Capital formation experienced a steep fall after the global financial crisis and only a slow recovery thereafter. Weak investment has been attributed to firms’ uncertainty of the economic outlook and unfavourable credit conditions (Barnett et al 2014a). Public sector investment was also cut as part of post-recession austerity. Working with fewer and lower-quality machines will reduce per-hour output. The decline in investment in the UK has been comparable to other developed countries, but from a significantly lower level of investment to begin with; the UK’s investment as a share of GDP has been well below the average of other rich countries since the late 1980s (figure 2.4).

FIGURE 2.4: THE POST-2008 RECOVERY WAS SIMILAR TO OTHER DEVELOPED ECONOMIES, BUT INVESTMENT HAS BEEN LOW IN THE UK SINCE THE 1980s

Left: Capital formation as percentage of GDP (1970–2017). Right: Investment to GDP ratio as percentage of its 2007 level.



Source: World Bank (2017), authors' calculations

2. Capital-labour substitution: due to the flexibility of the UK's labour market, the 2008 crisis led to only a modest increase in unemployment, but a significant fall in real wages (Barnett et al 2014a). Lower labour costs may have incentivised businesses to use more labour-intensive methods of production instead of investing in capital (Pessoa and Van Reenen 2013). On this evidence, the UK's impressive jobs growth may have driven the decline in labour productivity. It is, however, difficult to determine whether the fall in real wages is a cause or consequence of low labour productivity (Giugliano 2015).

However, quantitative estimates show that 'capital shallowing' can explain only a fraction of the productivity puzzle.³

Similarly, explanations related to 'labour quality' are inadequate. The share of people with less than a secondary education has been dropping steadily in the UK, while the share of people with a university degree has increased in a similar way to other countries (Goldin et al 2018).

Although the growth in employment after the 2009 recession was initially concentrated in low-skilled, less productive labour (Martin and Rowthorn 2012), there is limited evidence that lower-skill workers make up an increasing share of the workforce (Goodridge et al 2016). In fact, firms tended to hold on to their most productive workers during the downturn and laid off or cut hours of the less experienced or less qualified ones (Blundell et al 2014). Similarly, the ONS (2019c) finds that the increase in employment since 2011 was not in jobs that could be done by machines. As a result, there are fewer workers in areas that can be easily automated.

³ Goodridge et al (2016), for example, concluded that even with aggressive assumptions to account for premature scrapping of capital equipment during the recession, the change in capital stock per worker can explain only a small share of the productivity shortfall.

The lion's share of the explanation for the UK productivity slowdown must therefore be in TFP (Goodridge et al 2016, Riley et al 2018). While generally understood to capture technological efficiency, it is estimated as the residual share of GDP growth that is not explained by labour quantity, labour quality, or capital deepening. It is therefore difficult to untangle what exactly drives TFP. This is why the UK's productivity slowdown is characterised as a 'puzzle'.

2.2 SECTORAL EXPLANATIONS

The productivity slowdown is explained by low growth in only a few sectors

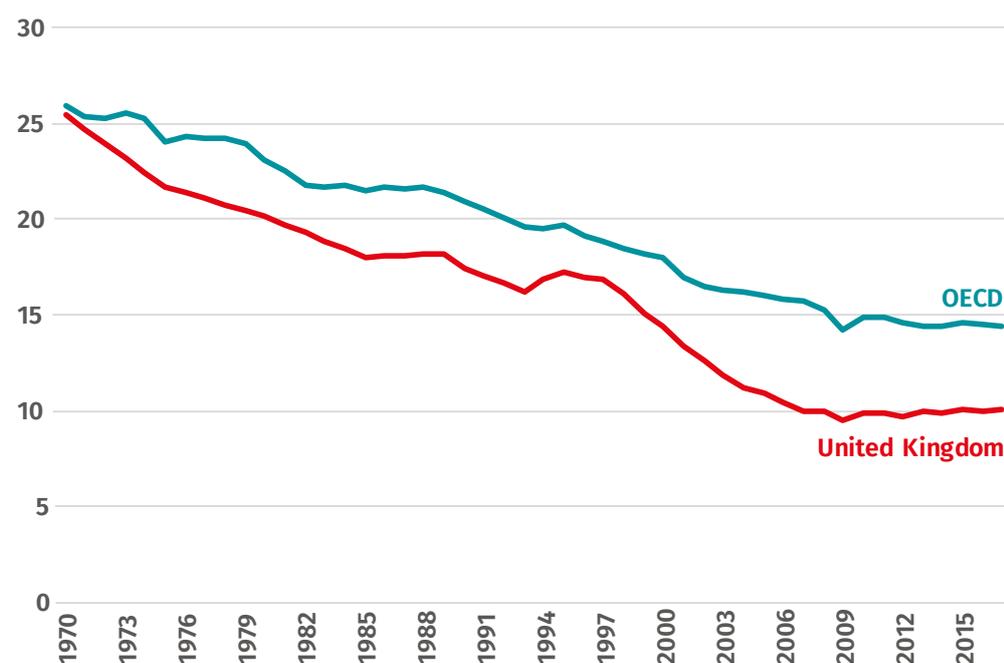
The UK productivity 'puzzle' is less obscure if one looks beyond the 2008 crisis. The causes of the UK's productivity weakness have deeper roots.

Over the long-term, labour reallocates from sectors with high productivity growth to sectors with low productivity growth. This is because less labour is required for production when productivity increases. The dramatic decrease of employment in agriculture from a third of the UK workforce in 1800 to only 1 per cent today best exemplifies this trend (Roser 2019). A similar process is underway in manufacturing, as automation reduces the need for human input, and workers move to the services sector. As labour re-allocates from industries with fast-growing productivity to lower productivity growth industries, the pace of labour productivity growth inevitably falls.

While the experience of de-industrialisation is shared by most developed economies, the decline of industrial employment has been more pronounced in the UK (figure 2.5). This is partially because de-industrialisation was fuelled by the discovery of North Sea oil and the rise of London as a global financial centre. Both sectors inflated the value of sterling, making manufacturing exports less competitive (Jones 2016).

FIGURE 2.5: MANUFACTURING AS A SHARE OF TOTAL OUTPUT DECLINED IN THE UK FASTER THAN IN OTHER OECD COUNTRIES

Manufacturing as percentage of GDP (1970–2017)



Source: UNCTAD (2019), authors' calculations

As well as driving de-industrialisation, North Sea oil and the finance sector's high productivity masked the slowdown in the rest of the economy by propping up the UK's productivity growth in the 1990s and early 2000s (Jones 2016, Tenreyro 2018).

However, this boost proved to be short-lived: in both cases, productivity growth diminished. For North Sea oil, this is because oil and gas reserves and production declined after 2000, making extraction much more costly (Jones 2016). For the banking industry, the rapid productivity growth in the early 2000s was, to a large extent, the upside to excessive risk-taking (ibid). The financial crisis ultimately showed that the contribution of finance to the economy was overstated because of the implicit subsidy to the UK banking sector paid by the taxpayer and exposed during the state-funded bailouts (BoE 2012). The stringent regulation put in place after the crisis was designed to temper the risks that financial institutions can take. This resulted in a stagnation of the sector's productivity (Jones 2016). Furthermore, it can be argued that finance has had a further detrimental effect on the economy by siphoning the UK's top talent. In this way, finance has potentially reduced productivity growth in other sectors.⁴

Goodridge et al (2016) quantifies the negative contribution that the oil & gas and finance sectors have had on UK productivity: they estimate that 35 per cent of the TFP shortfall can be explained by weak growth in these sectors alone.

Other studies also find that labour productivity growth lost most momentum in industries that experienced strong growth before the crisis. Riley et al (2018) and Tenreyro (2018) both conclude that the productivity gap is almost fully accounted for by a slowdown in a small number of highly productive sectors. Schneider (2018), similarly, shows that the UK's post-crisis productivity slowdown compared to the 2000s is attributable to a small share of companies at the top end of the productivity distribution.

Rebalancing of growth is needed for a productivity boost

The UK's productivity growth in the 1990s and 2000s (and to some extent since the 1970s) has therefore been driven by a relatively small number of industries and firms. However, it increasingly appears that these 'frontier' industries and businesses have lost momentum and are no longer able to drive growth. As such, the UK requires a new economic model to propel its prosperity.

The challenge is not only to revitalise growth in the most productive industries and firms, but also to lift the rest of the economy. The distribution of productivity across UK firms displays a short, fat tail of low-productivity companies and a long, thin upper tail of relatively few high-productivity firms. Worryingly, the divergence of productivity *across* sectors as well as across firms *within* sectors has increased significantly over the last 40 years (Haldane 2017).

The failed diffusion of innovation from 'frontier' to 'laggard' companies is seen by the OECD as the chief culprit of productivity slowdowns in most developed economies (McGowan et al 2015). In the UK, this productivity dispersion is far higher than in other advanced economies and has diverged at a faster rate (Haldane 2017).

Moreover, the persistence of so many low-productivity firms widens income inequality. This is because wage growth is inherently linked to labour productivity growth.

A slowdown in the performance of frontier companies and a declining rate of diffusion of innovation and best practice from 'frontier' to 'laggard' companies are key pieces in the UK's productivity puzzle.

⁴ This point is further elaborated in chapter 7.

2.3 THE REGIONAL DIMENSION

The drivers of UK's regional divergence

The UK's historical divergence in productivity growth across sectors and firms has a distinct regional dimension. It is a story of overperformance in the south east regions and underperformance everywhere else. Today, the most productive industries and firms are disproportionately located in London and the South East. For example, London's productivity is about 75 per cent higher than the productivity of the North East (Haldane 2017).

The decline of manufacturing was felt strongest in regions outside London and the South East, exacerbating the UK's regional inequalities (Batchler 2004). The associated job losses were disproportionately concentrated in the North West, North Yorkshire, Humberside, Scotland, and Wales where one third of all manufacturing jobs were lost (Batchler 2004).⁵ These employment opportunities were either not replaced or replaced by roles in lower-productivity services sectors.

Meanwhile, the south east regions benefited from a boom in high-productivity knowledge-based services. Such services often benefit from clustering in the same location. Concentration in one area thus becomes self-perpetuating.⁶ Other regions across the UK have failed to attract the new drivers of post-industrial growth to the same extent.

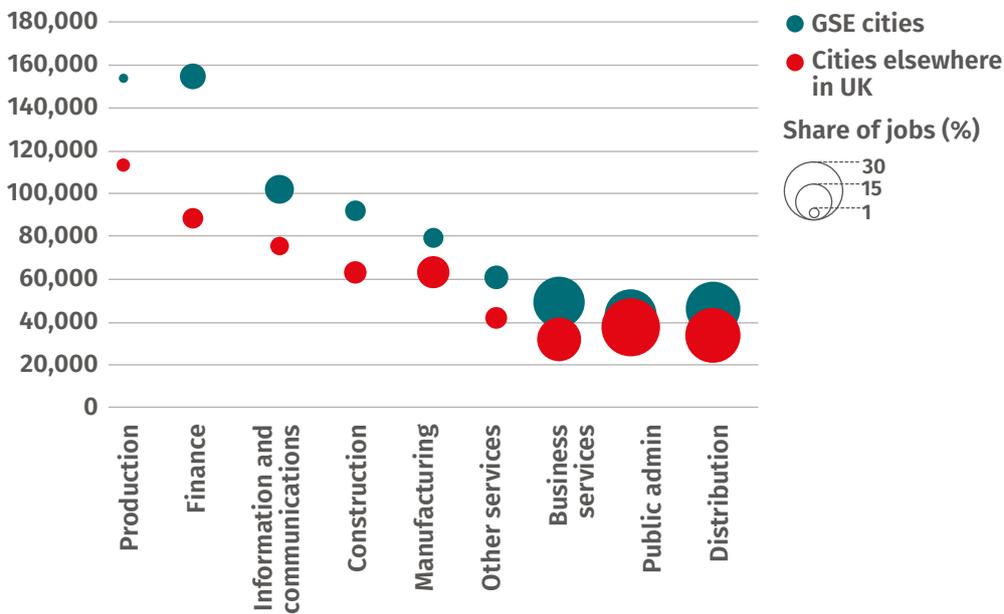
As demonstrated in figure 2.6, jobs in the high-productivity finance and ICT sectors are disproportionately concentrated in London, the South East and East of England (Swinney and Breach 2017). Moreover, it is the most productive firms *within* the services sectors that are based in these regions. These regional differences are less pronounced in lower-productivity sectors.

5 Employment in the UK manufacturing sector fell from 7.6 million to 4.9 million between 1972 and 1997.

6 See section 3.2 for an elaboration of the concept of agglomerations.

FIGURE 2.6: HIGH-PRODUCTIVITY SECTORS AND FIRMS WITHIN THESE SECTORS ARE DISPROPORTIONATELY CONCENTRATED IN THE SOUTH EAST REGIONS OF ENGLAND

Output per worker (£) and employment shares of different industries in cities in the 'Greater South East' (London, South East, East of England) and the rest of the UK, 2015



Note: GSE includes London, the South East and the East of England. Sectors are ordered according to their productivity at a national level. Agriculture is excluded because of its very small representation in cities, and real estate is excluded because its much greater size masks the patterns of other sectors. Source: Swinney and Breach (2017)

A region's success requires specialisation and ability to attract leading firms

The drivers of economic success of UK regions can be divided into *intra*regional (within a region) and *inter*regional (across regions) effects.

Intra-regional effects capture a region's specialisation in certain sectors of the economy. London provides a good example. It is due to its unique strength in financial and knowledge-based sectors that the city significantly outperforms the lagging tail of UK regions.

Sector specialisation is generally associated with higher growth. The ONS (2018b) shows that the fastest growing regions increased their level of relative specialisation each year, while the regions with the slowest productivity growth kept their specialisation constant. This suggests that policy efforts should encourage regions to establish their own sector niches to improve their competitiveness.

The inter-regional approach compares the productivity levels of the same industry across all regions. Quantitative evidence suggests that these inter-regional effects appear to have had a stronger impact on the UK's regional productivity divergence (ONS 2017c). Figure 2.7 compares the productivity of manufacturing and services across UK regions in 1997 and 2017.

The most productive regions, London and the South East, were the only regions achieving productivity above the national average in both sectors at both points in time. Meanwhile, the lagging UK nations and English regions (Northern Ireland, Wales, South West, Yorkshire and the Humber, North East, West Midlands and East Midlands) were below the UK average in both years and both sectors.

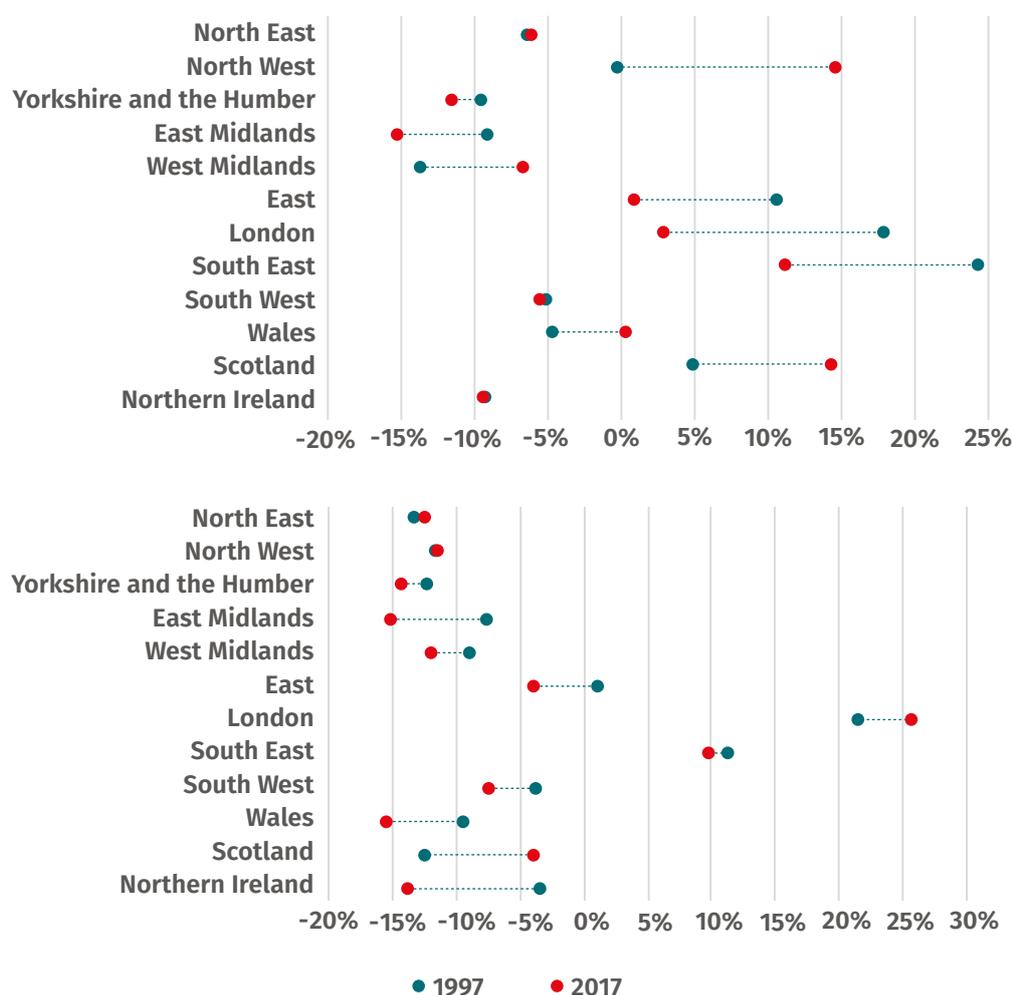
These findings suggest that the UK's regional disparities can only be partially attributed to the fact that the most productive sectors are disproportionately represented in London and the South East. Perhaps even more significantly, it is the difference between the regions' productivity *within* a given sector that creates the gap.

Notably, the productivity dispersion of firms *within* the services sectors is more than 50 per cent higher in the UK than in other developed economies (Haldane 2017).

FIGURE 2.7: LONDON AND THE SOUTH EAST LEAD REGIONAL PRODUCTIVITY RANKING IN BOTH SERVICES AND MANUFACTURING

Top: Output per hour in manufacturing relative to UK average (1997 and 2017).

Bottom: Output per hour in services relative to UK average (1997 and 2017)



Source: ONS (2017b), authors' calculations

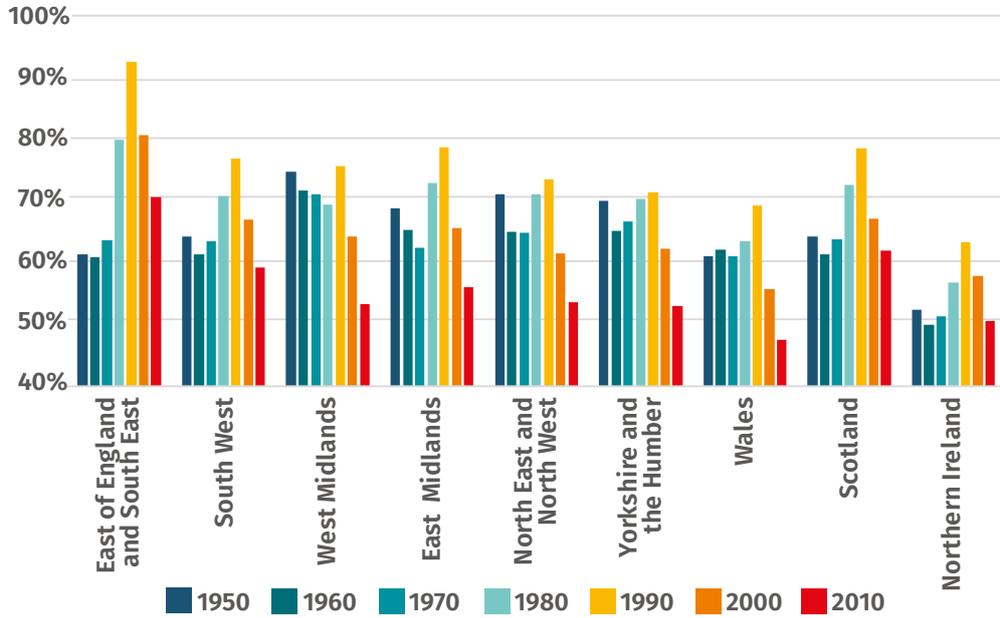
Productivity divergence transformed the UK into the most regionally unequal country in Europe

The deep roots of this regional divergence can be illustrated by comparing the GDP per capita across all UK regions expressed as a percentage of London (figure 2.8).

Since the 1960s, only the East of England and the South East reached 80 per cent of London's per capita GDP. In all regions, this disparity with London declined until 1990, before worsening each decade until 2010.

FIGURE 2.8: MOST REGIONS WERE CONVERGING TO LONDON'S PER CAPITA INCOME UNTIL 1990 BUT HAVE BEEN DIVERGING SINCE

Regional GDP per capita (PPP), international 1990 dollars, percentage of London

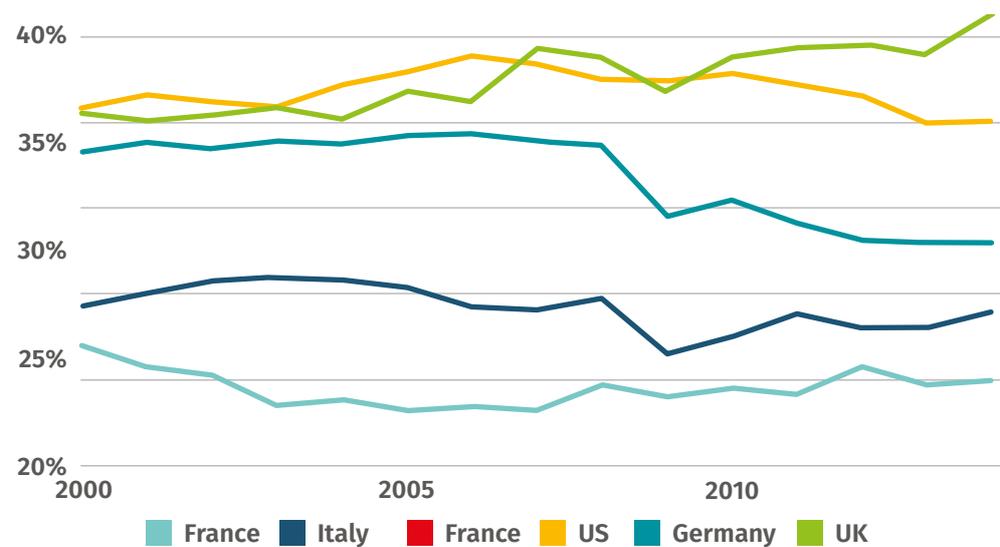


Source: Rosés and Wolf (2018), authors' calculations.

Furthermore, the UK's economic slowdown since the Great Recession has widened the regional disparities further. This differs to most other developed economies which saw convergence over the same period (figure 2.9).

FIGURE 2.9: UNLIKE IN OTHER DEVELOPED ECONOMIES, THE PRODUCTIVITY GAP BETWEEN THE TOP AND THE BOTTOM UK REGIONS HAS WIDENED SINCE 2008

Difference in labour productivity between the top and the bottom 20 per cent of regions (%)

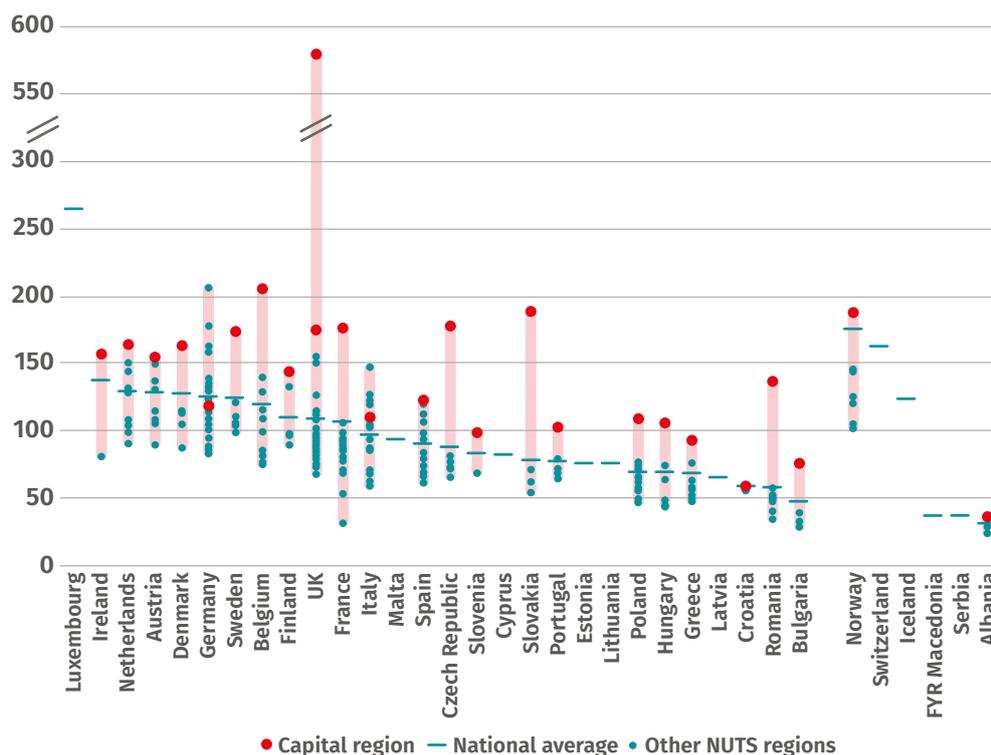


Notes: UK regions evaluated at the NUTS1 level

Source: OECD (2017a)

This makes the UK a clear outlier in regional economic inequality (figure 2.10). The difference between the GDP (PPP) per capita in London and the UK's poorest regions exceeds those of other EU member states several times. While London is comfortably Europe's wealthiest region, most other UK regions are among the poorest in Western Europe.

FIGURE 2.10: THE UK IS THE MOST REGIONALLY UNEQUAL COUNTRY IN THE EU
Regional GDP in purchasing power per inhabitant, percentage of EU average, 2015



Notes: Ranked on the national average. The UK has two capital city regions: Inner London – East and Inner London – West. Ireland, Norway and Albania data is for 2014.
Source: Eurostat (2017a)

2.4 ECONOMY-WIDE WEAKNESSES

Low innovation, skills mismatches, and impaired access to finance hold back growth

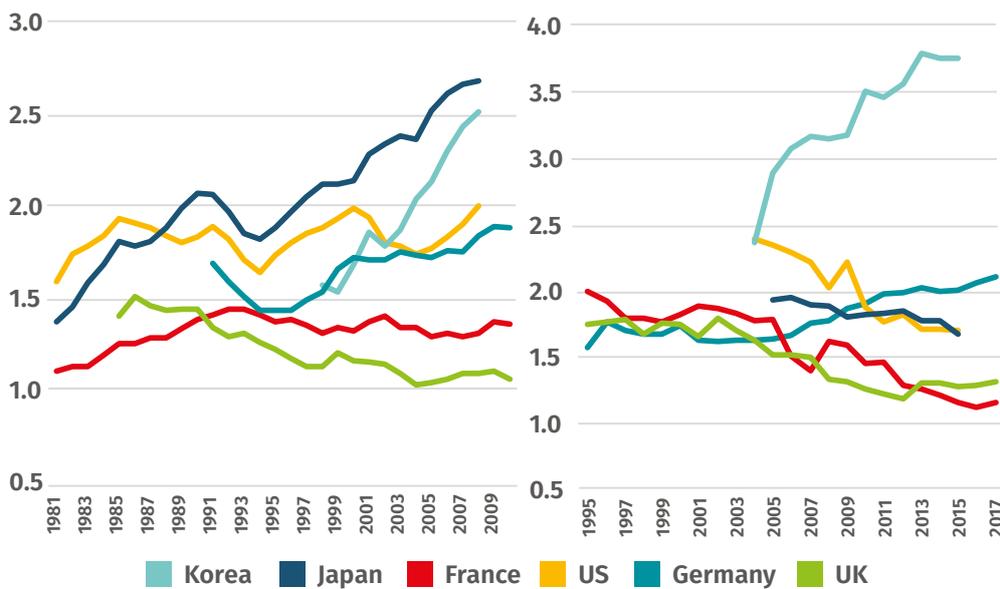
The UK's poor productivity performance cannot be explained by sectoral factors alone. A significant share of the TFP slowdown is driven by a loss of momentum across most sectors in the economy (Haldane 2017). The drivers are complex and only partially understood. However, some notable weaknesses include the following.

- **Low innovation spending:** Innovation spending in the UK has lagged behind the world's other major economies for decades (figure 2.11). Moreover, UK industry has become less research intensive over the last decade at a time when other countries have been increasing their commercial R&D intensity (figure 2.11). Although the link between R&D intensity and economic performance is not straightforward, the long-term decline in innovation spending is a likely contributor to the current stagnation.

- **A business culture of short-termism:** The UK's innovation deficit is also attributable to a culture of short-termism in UK business. This is a product of a dominant corporate governance model that maximises short-term shareholder returns over long-term growth and vision. As a result, UK businesses have failed to invest in the accumulation of 'knowledge-based capital' (McGowan et al 2015). Beyond low-levels of expenditure on R&D, this includes low investment in organisational know-how, intellectual property, managerial capital, or worker training. For example, the lack of management quality is thought to be one of the explanations underlying the UK's fat tail of unproductive companies (Haldane 2017).
- **Misallocation of skills and poor labour mobility:** According to the OECD, almost a quarter of British workers report a mismatch between their existing skills and those required for their job (McGowan et al 2015). Over-skilling is two and a half times more widespread than being under-qualified (McGowan et al 2015). A third of young graduates across the UK are in non-graduate jobs (Clarke 2017a). An important part of the problem is low mobility. According to Clarke (ibid), the share of graduates who move region and change jobs has fallen by 80 per cent since 2001. A lack of affordable housing and poor infrastructure have contributed to the problem. However, a key issue is the unavailability of well-paying and attractive jobs across the country (ibid).
- **Credit constrained start-ups:** The UK is successful in stimulating the creation of start-ups, but many small productive businesses struggle to access finance for growth. Instead, bank lending is directed to residential housing rather than business investment and non-bank finance is disproportionately provided to firms in London and the South East.⁷

FIGURE 2.11: BOTH PRIVATE AND PUBLIC INNOVATION SPENDING LAGS BEHIND OTHER MAJOR DEVELOPED ECONOMIES

Left: Business R&D as percentage of GDP. Right: Public R&D investment as percentage of total public expenditure



Source: Eurostat (2011) and Eurostat (2017b)

7 Chapter 7 provides a more detailed discussion of the problems in the UK's financial sector.

UK's economic centralisation is both a symptom and a contributor to the UK's failing economic model

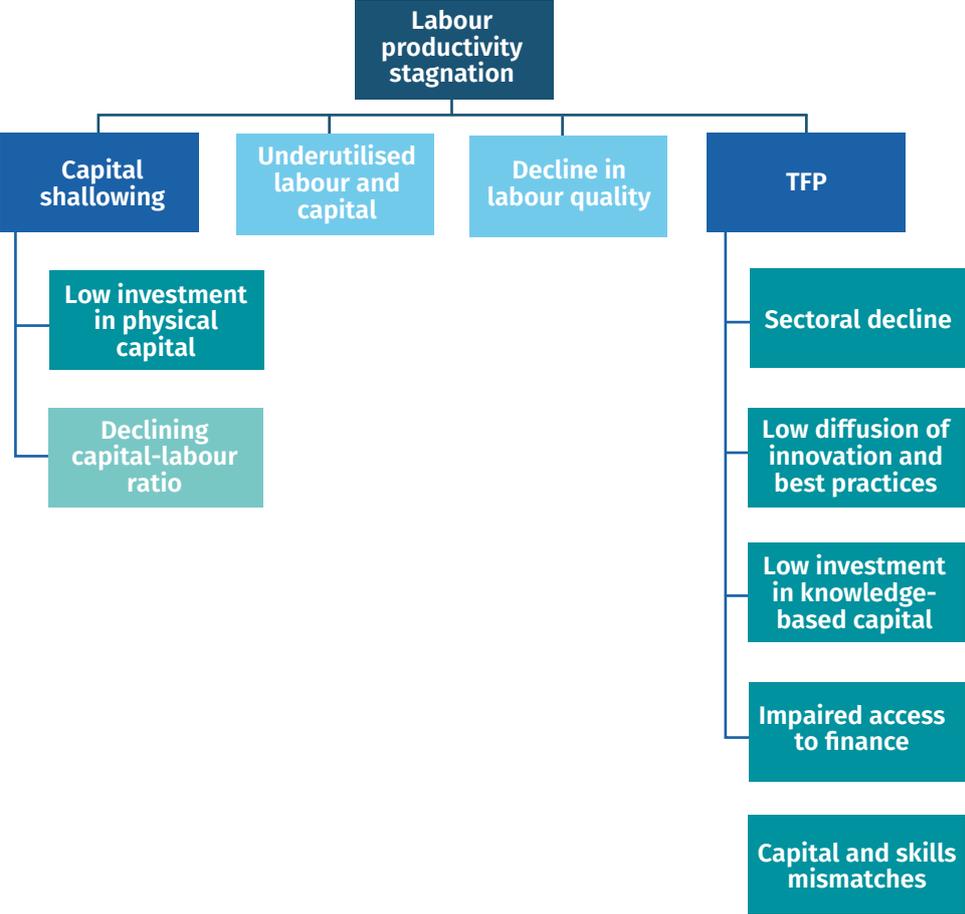
Summing up the above analysis, a solution to the UK's growth problem should:

- target supply-side rather than demand-side constraints
- stimulate the diffusion of knowledge and innovation across firms, sectors, and regions
- reverse the trend of the concentration of productivity growth in London and the South East
- support regional specialisation and efforts to attract leading firms to UK's less developed regions
- encourage more private and public investment in physical and knowledge-based capital
- address obstacles that prevent start-ups and SMEs from growing (eg access to credit)
- facilitate better matching of overqualified workers to higher-skilled jobs
- reorient bank lending from residential housing to business investment
- combat short-termism in UK corporate governance to boost investment in innovation
- encourage investment that is committed to social and environmental objectives.

We believe these targets are best met by a coordinated policy effort to radically decentralise the UK economy. Excessive centralisation (defined in the broad sense) is both a symptom and a cause of the UK's failing economic model. The rest of this report demonstrates how excessive centralisation holds back green, inclusive growth and what can be done to reclaim it.

FIGURE 2.12: THE UK'S LABOUR PRODUCTIVITY STAGNATION IS DRIVEN BY LOW INVESTMENT AND STAGNATING TOTAL FACTOR PRODUCTIVITY

The drivers of UK's labour productivity slowdown



Note: Cells shaded in darker tones represent more significant drivers.

Source: Authors' analysis

3.

HOW DECENTRALISATION CREATES GROWTH

There are a number of channels through which decentralisation raises the quality and quantity of growth in the UK.

- In both political and corporate domains, a decision-maker's proximity to the problem can lead to better solutions. A person directly affected by their decisions has 'skin in the game'; their private incentives are aligned with the collective interest. For example, better incentive alignment can lead to the pursuit of long-term objectives and therefore higher innovation and infrastructure spending, or business models that internalise their impact on the local community and the environment.
- Local stakeholders further benefit from information advantages, which can again increase the quality of decisions they make. For example, deep local knowledge and networks decrease a bank's cost of assessing the creditworthiness of SME loan applicants.
- Regional rebalancing of economic activity has the potential to reduce skills mismatches and encourage more efficient use of capital and labour. For example, more opportunities for highly skilled workers in the UK's less developed regions can reduce the share of people overqualified for their job and earning less than their potential.
- Moreover, spatial decentralisation of economic activity can make capital and labour more productive by reducing congestion, commute times, pollution and the associated economic, health, and environmental costs.
- Knowledge and ideas are improved rather than depleted through use. A greater diffusion of innovation and know-how therefore stimulates growth.
- Lower inequality, achieved through decentralisation, fosters social cohesion and cooperative social norms, while reducing industrial conflicts, destructive populism, crime, and other phenomena that inhibit growth.

After explaining the benefits of decentralisation in more detail, this chapter articulates the potential costs of decentralisation and the ways in which these costs can be minimised.

Finally, this chapter argues that despite the net benefits of decentralisation, coordination failures prevent their materialisation through market forces alone. Instead, an external intervention is needed to unlock new sources of growth. Following the economic literature, we call this intervention the 'Big Push'.

3.1 ECONOMIC BENEFITS OF DECENTRALISATION

Incentive alignment prevents externalities

Incentives are currently geared towards short-term gain at the expense of long-term benefit. This can be seen in a range of activities from government-funded projects which mature within a political cycle to shareholders prioritising immediate gains at the expense of long-term investment. Inevitably, this type of behaviour leads to insufficient and inefficient investment. This culminates in lower productivity and, ultimately, lower economic growth.

At a high-level, this problem can be described as one of negative externalities: agents with decision-making power make choices that are based on a *private* cost-benefit analysis but carry *social* costs.

For example, firms in which management prioritises the satisfaction of short-term shareholders have little incentive to make long-term investments. Their decisions may also ignore the effects of the firm's production on the local community or environment and they may adopt cost-saving labour practices at the expense of beneficial investments in labour productivity. Similar problems can occur in political decision-making, where insufficient accountability can lead to incentives that are not aligned with the socially optimal outcome.

Centralised political and economic leadership structures divorce decision-makers from the social costs and benefits of their actions. A decentralisation of both political and corporate governance would shift decision-making to those who are directly affected and have a longer-term stake. This would result in a closer alignment of private incentives with socially desirable objectives and the avoidance of costly firm-stakeholder conflicts. Chapters 5 and 8 detail the benefits of decentralised decision-making at the political and corporate level, respectively.

Local decision-makers have information advantages

Local stakeholders have clear information advantages for decision-making. They draw on a wider set of local knowledge than centralised structures. The resulting choices and outcomes are therefore more likely to be based on the right information.

A reduction in communication costs, associated with the rise of digital technologies, enables decentralised decision-makers to remain interconnected and therefore base their choices on both a comprehensive outlook and their local knowledge (Malone 2003). This contrasts with centralised institutions, where leadership may have a global vision but are unaware of relevant local subtleties (eg local tastes).

For example, local knowledge and networks could mitigate information asymmetries that lead to the undersupply of credit to innovative SMEs. Chapter 7 provides a more detailed discussion of the benefits of local banks and branch-level decision-making.

Skills better matched to jobs make the economy more efficient

Labour mismatch occurs when there are barriers to mobility across distinct parts of the labour market, such as skills or location of work (Turrell et al 2018). People are often unable or unwilling to move for jobs. Vacancies remain in one area, while the suitable skills can be found in another. Unless either workers or firms relocate, vacancies remain unfilled or filled by underqualified or overqualified workers. This mismatch reduces earnings and harms aggregate productivity.

The geographical concentration of many of the UK's highly productive businesses in the south east regions is one source of skills mismatches. Qualified workers may struggle to find opportunities in their occupation in their home region. Unable or unwilling to move for a job, they may accept a lower-skill job, where their human capital deteriorates.

Research suggests that resolving regional skills mismatch at the start of 2008 would have seen UK productivity increase sufficiently to completely offset the

UK's 'productivity puzzle'.⁸ There is, thus, a great potential to expand aggregate productivity by reducing the skills mismatch through greater labour mobility and a redistribution of opportunities across the country. This idea is explored further in chapter 4.

Spatially dispersed production is more cost-efficient

If economic activity is rebalanced to regions outside of London where land and labour are cheaper, then the production costs faced by the firms that relocate would decline. Decentralisation can thus facilitate faster growth through more cost-efficient production.

Such regional rebalancing would not constitute a mere zero-sum transfer. Shorter commutes, less congested traffic, and lower air pollution could yield net economic benefits, as well as a positive impact on health or the environment. Moreover, when firms save on paying high (unproductive) rents to landowners, the higher profits are likely to stimulate more investment and allow the firms to pay higher wages. This would stimulate both economic growth and a more equitable distribution of incomes, as wages outside London and the South East catch-up. Chapter 4 details our proposal for realising this economic dividend.

Sharing of knowledge stimulates innovation

Knowledge is a non-rival good – it does not deplete through use. A more efficient diffusion of product and process innovation across firms brings net economic benefits, provided such sharing does not discourage investment in innovation. Moreover, if productivity laggards are more successful in adopting best practices of frontier businesses, competition is strengthened and with it its positive impact on efficiency and lower consumer prices. Effective knowledge sharing also prevents research duplication and stimulates more 'downstream' innovation that builds on earlier inventions. Chapter 6 discusses how knowledge can be decentralised to maximise the economic benefits of new ideas.

Reducing inequalities unlocks economic growth and increases well-being

Our plan for the decentralisation of economic activity, knowledge, finance, and capital - developed in the following chapters - will lead to a more equitable distribution of incomes.

There is an economic dividend to greater equality. Increasing the income of the worse-off above subsistence levels allows them to invest more time and money in their education or health, which can make them more productive (Chang 2011). A more equal distribution of incomes fosters social cohesion, community building, and cooperative social norms, while reducing industrial conflicts, crime, and other phenomena that damage growth (Rufancos et al 2013, Enamorado et al 2016, Hicks and Hicks 2014). In the long-term, a more equal society that caters for the well-being of the worse-off is more likely to avoid political populism and the economic self-harm it can lead to through poor policymaking (Shankar and Shah 2003).

Moreover, the benefits of a more equitable society go beyond standard measures of economic output. Empirical research shows that for most people, every extra pound of income yields less satisfaction than the last (Horowitz et al 2007). This phenomenon of 'diminishing marginal utility' arises because people prioritise the satisfaction of their most important needs (Lerner 1947). A more equitable distribution of wealth will therefore maximise the satisfaction of high-priority needs and lead to higher aggregate welfare. Consequently, rebalancing growth

8 The authors do not suggest that regional mismatch is behind the 'productivity puzzle', simply that it can offset it (Turrell et al 2018). Whilst this particular paper addresses regional mismatch by redirecting labour towards the South East, our proposal would create vacancies and opportunities beyond the south east regions.

towards less developed regions creates more total well-being even if the GDP gains were identical to growth concentrated in wealthy regions.

3.2 COSTS OF DECENTRALISATION

Centralised production benefits from agglomeration spillovers

Agglomeration effects are the principal economic benefit of centralisation. The spillovers resulting from businesses being close to each other include knowledge sharing, access to specialised labour, the development of sector-specific infrastructure or access to customers within supply-chains. Clustering of economic activity in particular cities or regions can thus lead to higher economic growth (Glaeser 2010).

Agglomeration effects explain why firms concentrate in London and the South East, even though the prices of production inputs (labour, land etc) are far higher there than in the rest of the country. Firms also choose to incur other costs, including congestion, higher transportation costs, pollution or more crime. The fact that businesses nevertheless continue concentrating in London testifies to the size of agglomeration benefits.

The developments in information and communication technology reduce the importance of physical location and therefore the need for physical concentration. However, globalisation has acted to strengthen agglomeration benefits further (Barca et al 2012).

Less centralised countries are able to benefit from agglomeration effects

It could be argued that the higher economic growth driven by agglomeration benefits means that we should promote centralisation instead of regionalisation.

However, agglomeration benefits are not unique to the UK – and yet other developed countries do not suffer a similar bias towards a single city (Parkinson et al 2012).

Most of the countries which show similar levels of centralisation to the UK are small. Small countries are naturally more likely to create only one hub in order to capture agglomeration benefits. However, the UK is not small and is almost unique among large developed countries in its economic dependence on the capital (Cox et al 2014).

Agglomeration effects are an important driver of growth, but they do not justify the dominance of London as the sole major economic hub in the UK. Chapter 4 explains how a decentralised Britain can retain the benefits of clustering.

3.3 THE TRANSITION TO A NEW, DECENTRALISED EQUILIBRIUM

Coordination failures, capital scarcity and entrenched interests hold back decentralisation

Despite the net benefits from decentralisation, the current centralised structure of the UK economy is perpetuated because of coordination failures and an institutional set-up that favours the status quo. Market forces alone cannot unlock the dividend from decentralisation.

The UK is stuck in a lower-growth equilibrium because it is not viable for individual actors to unilaterally change their behaviour. Deviation is only profitable if it occurs in tandem with a sufficient number of other actors (Rosenstein-Rodan 1943). This is because businesses benefit from one another's geographical proximity through spill-overs.

If agents change their behaviour in a coordinated manner rather than in isolation, a new outcome can become an equilibrium (Murphy et al 1989). A coordinated policy effort is therefore required to initiate a transition from an equilibrium in

which all sectors are concentrated in the south east regions towards one in which individual sectors form regional clusters across the UK (see chapter 4).

This outcome, however, also requires the development of regional infrastructure. Businesses do not concentrate in London only because of agglomeration effects, but also to benefit from its high infrastructure stock. At present, infrastructure spending is disproportionately focused on London in per capita terms (Chadha 2018). This is a consequence of the political bargaining power that Londoners hold, rather than a result of market processes (Kim 2011). Breaking the barriers to decentralisation requires policies that overcome coordination failures and supply more infrastructure capital to the regions.

Lastly, decentralisation of corporate and political governance is prevented because it is not in the interest of the decision-makers that currently concentrate power. Shareholders benefit from their monopoly in corporate decision-making while Westminster is unwilling to reduce its influence by transferring power to sub-national authorities. Similarly, strong intellectual protection laws hinder effective transmission of innovation from top performers to other businesses, entrenching the position of the frontier companies and stifling competition.

The 'Big Push'

The fundamental tenet of our proposal is that our policies need to be conducted simultaneously in order for them to have a significant effect on the economy. In the economics literature, this idea is known as the 'Big Push'. Some of the policies we recommend have been suggested or even implemented in the past, but we argue that they have not previously been successful as they were not applied simultaneously as a series of policies and therefore failed to have their desired effect.

This theory is thus central to our policies and highlights that piecemeal efforts to move from a low equilibrium to a high equilibrium (ie moving from a centralised to a decentralised economic and political system) are insufficient.

The 'Big Push' can overcome coordination failures. The outcome of a spatially decentralised Britain requires complementary investments and actions to be made but individuals are unable to coordinate their actions with each other, instead focusing only on their private decisions. Yet, if a critical mass of firms moved to a particular region, then a new cluster could be established, attracting further investment and talented labour force. To get there, the 'Big Push' is required, which we propose takes the form of government involvement to encourage businesses to relocate.

In parallel, the 'Big Push' can facilitate the decentralisation of knowledge and governance. The policy areas discussed in this report are interrelated and the success of one may depend on the progress in others. Chapter 9 explains this in greater detail and proposes an implementation plan that builds on the linkages.

4.

DECENTRALISATION OF ECONOMIC ACTIVITY: REGIONALISATION

London and the South East alone account for almost 40 per cent of UK output and are the only regions that outperform the UK's average labour productivity (Chadha 2018). The UK is the most geographically imbalanced economy in Europe (IPPR 2017).

Agglomeration arguments, that stress the role of concentrated economic activity in modern knowledge economies, do not justify the UK's extreme regional imbalance given the existence of relative regional balance in other countries.

The benefits of a single agglomeration like London is also tempered by the existence of new digital technologies (Jacobs et al 2017): the internet allows companies and employees to reap agglomeration benefits remotely. In other words, the advent of 'remote agglomerations' weakens the case for the UK's model of regional imbalance. Policies that encourage the relocation of firms and households could therefore maintain these remote agglomerations whilst at the same time benefiting from the lower costs and higher quality of life that regions outside of the south east offer. Additionally, research suggests that the benefits of knowledge spillovers (a key driver of agglomeration benefits) are strongest within a distance of only a mile, suggesting that London may already be too large and the natural relocation of some sectors out of London will increase agglomeration benefits both in London and around the country (Rosenthal and Strange 2003).

Even so, market failures and coordination issues mean that we should not expect a natural convergence of economic activity across the UK without coordinated government intervention.

We believe action is necessary. Rebalanced growth could revive entire regions and unlock an economic dividend that enhances UK growth and reduces inequality. More specifically, this dividend could come from the more efficient matching of two types of economic activity:

- businesses and locations, where businesses locate to areas where factor costs (eg of rents and labour) and congestion costs (and all associated productivity costs) are lower
- talent and jobs, where highly skilled workers migrate to maximise their job opportunities (higher-paid/higher-skilled jobs) and avoid the negative health effects of congestion and pollution.

The outcome will be reduced business costs in the first instance, productivity gains (and wage growth) in the second, and lower environmental and health costs in both instances.

Unfortunately, these potential benefits are currently insufficient. The attractiveness of cities beyond London and the South East is limited by the long history of underinvestment. Investment in the UK is both significantly below the OECD's

recommended level (OECD 2015b)⁹ and disproportionately focused on London in per capita terms: London received £5,000 per capita of public investment or double the per capita share of the South West (Chadha 2018). Over decades, this inequality in public investment results in large regional differences in the stock of several kinds of capital that characterise the attractiveness of cities (eg infrastructure, cultural capital, human capital). We term these differences the ‘capital deficit’ between regions. This deficit undermines productivity and leaves areas on the economic periphery ill-equipped to contribute to the UK’s productivity growth needs.

Furthermore, the benefits of relocation for a single company may not be enough. Some businesses are interdependent – they need to be in close proximity and need to coordinate their investments (eg those with common markets, technologies, labour needs, and supply chains). In other words, some firms may not relocate because of the need for coordination.

For this reason, our vision for a more regionally balanced economy can only be achieved through measures that:

1. reduce this capital deficit
2. facilitate the voluntary movement of households and businesses
3. facilitate ‘remote agglomeration’
4. foster regional clusters that can encourage interdependent groups of businesses to move in unison.

To this end, this chapter explores the following policies in detail.

- A progressive profile of public investments in regions characterised by a ‘capital deficit’. The focus of this chapter is on closing the capital deficit through progressive and ultimately more equitable capital investments that are responsive to need.
- Investments in information and communications technologies to facilitate ‘remote agglomeration’ (measures to encourage knowledge sharing are explored separately in chapter 6).
- Government-backed financing to allow credit-constrained households and firms to move to new regions to unlock the benefits of relocation. We call this ‘mobility funding’.
- Targeted relocation of state agencies and institutions to foster regional clusters.
- Construction of new homes to lower house prices and encourage the reallocation of finance towards more productive assets.

These policies and their objectives are detailed below.

4.1 INVESTING IN CITIES TO CLOSE THE ‘CAPITAL DEFICIT’ AND RETAIN AGGLOMERATIONS

The regional capital deficit is perpetuated by funding biases

A progressive profile of public investments in regions that have a ‘capital deficit’ would make them attractive destinations for high-productivity businesses and employees without the loss of benefits of connectivity to a large city like London.

However, the level and effectiveness of infrastructure investment in the UK generally and across regions is held back by a lack of political vision and the failure of successive governments to commit to a credible long-term infrastructure strategy (Atkins et al 2017).

9 For details, also see: <https://bit.ly/2W63HFt> [accessed on 31/05/2019]

In many cases, transport schemes are centred around London (eg Crossrail and HS2).¹⁰ This bias partly reflects the complexity of UK infrastructure funding as per HM Treasury's 'Statement of Funding Policy'.¹¹ The result is a spending profile on infrastructure that is largely at the discretion of a central government that is misinformed of the needs of specific communities, underfunds the devolved administrations and leaves regional funding subject to the whims of central government.

This bias in funding perpetuates the inefficient 'single hub and spoke' model that forces many commuters to travel to their destinations indirectly via London rather than supporting direct links between cities and towns that should be connected directly. These journey times make it difficult for cities to exchange ideas and to become larger markets/agglomerations by pooling their customer base and physical and human capital (Venables 2007, Graham 2007). These facts demonstrate the 'capital deficit' in regional transport.

The UK also faces a capital deficit in broadband. There are only 44 postcodes in Britain that offer 'gigabit speed' – the benchmark for the ideal standard for internet speeds in the future and over 20 times faster than the average speed in the UK (Smith et al 2018). This places the UK below 25 other European countries for broadband speeds (Wakefield 2018).

Targeted investment in transport and digital infrastructure can reduce reliance on London

Our proposals focus on reducing the 'capital deficit' in transport infrastructure and broadband connectivity.

- **Transport:** As a minimum, we advocate the provision of £43 billion of long-term transport funding from government for regional cities (NIC 2018). This will complement existing funds generated as part of the Northern Powerhouse scheme (HM Government 2016). Additional funding will also be available for cross-regional schemes that require more significant funds to connect regions to international destinations and with each other. Together, this funding will be progressive, prioritising cities whose potential to become regional hubs is hampered by their capital deficits in transport. Regional schemes can contribute to the revival of entire regions.
- **Broadband and mobile connectivity:** Investments in fibre broadband and 5G mobile connectivity will allow companies and employees to reap the agglomeration benefits of London without the need to physically locate in London. This will complement the trend towards remote working, with half the UK working population expected to do so by 2020,¹² and allow both firms and households to locate to cheaper, less congested areas. We can encourage private investment in broadband connectivity through government support from financial incentives and/or regulatory intervention to mandate fibre connectivity requirements.

Infrastructure building decisions should be devolved to sub-national authorities

Funding for both schemes will be committed alongside reforms to give local authorities more discretion over the allocation of public investment in infrastructure and bring decision-makers closer to constituents. Local authorities were responsible for just 13 per cent of the Department for Transport's (DfT) total capital budget in 2017/18 (DfT 2018). We propose doubling this to 26 per cent (equivalent to £3.5 billion per year in 2017/18).

10 See: <https://bit.ly/2zjXuND> [accessed on 31/05/2019]

11 For details, see NAO (2019) 'Investigation into devolved funding'. <https://bit.ly/2zjXuND> [accessed on 31/05/2019]

12 See <https://bit.ly/2SBIgf2> [accessed on 04/04/2019]

This will ensure that public expenditure decisions are optimal (better informed, accountable and aligned with constituents) and ultimately responsive to need. To begin with, the DfT's capital budget for local authorities and the additional £43 billion of regional transport funding will be devolved to local authorities and 'metro mayors' after they have built the capabilities to undertake this new function and published integrated public investment plans.¹³ In some cases, these plans will be developed in partnership with other local authorities and metro mayors for larger schemes that cross regional boundaries. The concept of devolved budgets and 'combined local authorities' that can deliver these larger schemes are explored further in chapter 5.

Devolution of this will mean that local authorities and metro mayors will have autonomy to direct infrastructure (and the provision of public services – as explored in chapter 5) in line with need. We therefore make no commitment on how these funds will be spent, but we envisage these funds to be directed at schemes that increase inter-regional connectivity (eg electrified rail and high-speed broadband) and reduce commute times and congestion within cities (eg cycling and public transport).

The result will be schemes that improve health and wellbeing, contribute to the government's climate change commitments, have a higher marginal return for taxpayers, businesses and citizens, and improve the access of cities to talent, supply chains, markets and knowledge. This reduction in the capital deficit of these regions will therefore improve productivity, encourage the relocation of firms and businesses, support the realisation of 'remote agglomeration' effects and help realise the economic dividend from regionalisation.

Once the existing capital deficit has been eliminated, the principle of progressive investment will be replaced by a policy of allocating public resources on a strictly per capita basis. This long-term policy will depoliticise the allocation of funds across regions and reverse the bias in infrastructure expenditure against most English regions.

In addition, our policy proposals in chapter 7 outline how private finance can be leveraged to support these public investments.

4.2 MOBILITY FUNDING

There is evidence to suggest that labour mobility in the UK is low, with the share of working-age population moving region having fallen by 25 per cent since 2001. The most significant decline of which has been seen for young graduates (Clarke 2017b). The effect of this declining mobility is to reduce the ability for firms to match with the most appropriate employees, leading to lower productivity as a result of skills mismatch.

To reverse this trend and encourage geographical mobility, optimising job matching, we suggest government backed, below-market interest rate, loans for individuals and households that find themselves unable to move for financial reasons. This will primarily be available to households who cannot afford to relocate to areas where they would be most productive.¹⁴ With savings at an all-time low, many households may be unable to pay the upfront travel and removal costs of relocating (ONS 2018e). Furthermore, around one in four young adults lived with their parents in 2015

13 The National Infrastructure Commission (2018) proposes that metro mayors develop integrated strategies for transport, housing and employment.

14 It is also a possibility that a small number of households will find themselves in negative equity if house prices equilibrate across the country. This would inhibit their ability to move location and may hinder aggregate productivity as a result of skills mismatch. Such households would also be eligible to access mobility funding, offering short-term loans to help these households establish themselves in a different locality.

(ONS 2016), meaning some would be unable to afford the costs of renting without short-term assistance, particularly in a new destination where individuals are likely to have a smaller social network.

The short-term loan will enable those individuals seeking to relocate the ability to do so, thereby facilitating our overall aim of regionalisation. Such a policy could be financed by ending the Help to Buy Scheme. To date, this scheme has provided £9.9 billion in loans, equivalent to an average loan of £53,819 for each beneficiary (MHCLG 2018). By ending the scheme, funds will be freed up which can encourage labour mobility instead of fuelling unproductive assets and an upward spiral of house prices.

Moreover, this policy could be extended to SME firms which are looking to relocate.¹⁵ Such firms may require financial support if they face credit constraints and/or have insufficient short-term funds to finance relocation.

4.3 BUILDING NEW HOMES

The UK's regional concentration contributes to the housing crisis

Over the next 20 years, the number of households in England is expected to rise, on average, by around 159,000 each year (ONS 2018c). This is in addition to a severe backlog of housing supply, estimated to be as large as 2 million. The result is overcrowding, homelessness and young adults remaining in their parental homes (Shelter 2015). Demand for housing will therefore rise sharply in the long-term (figure 4.1).

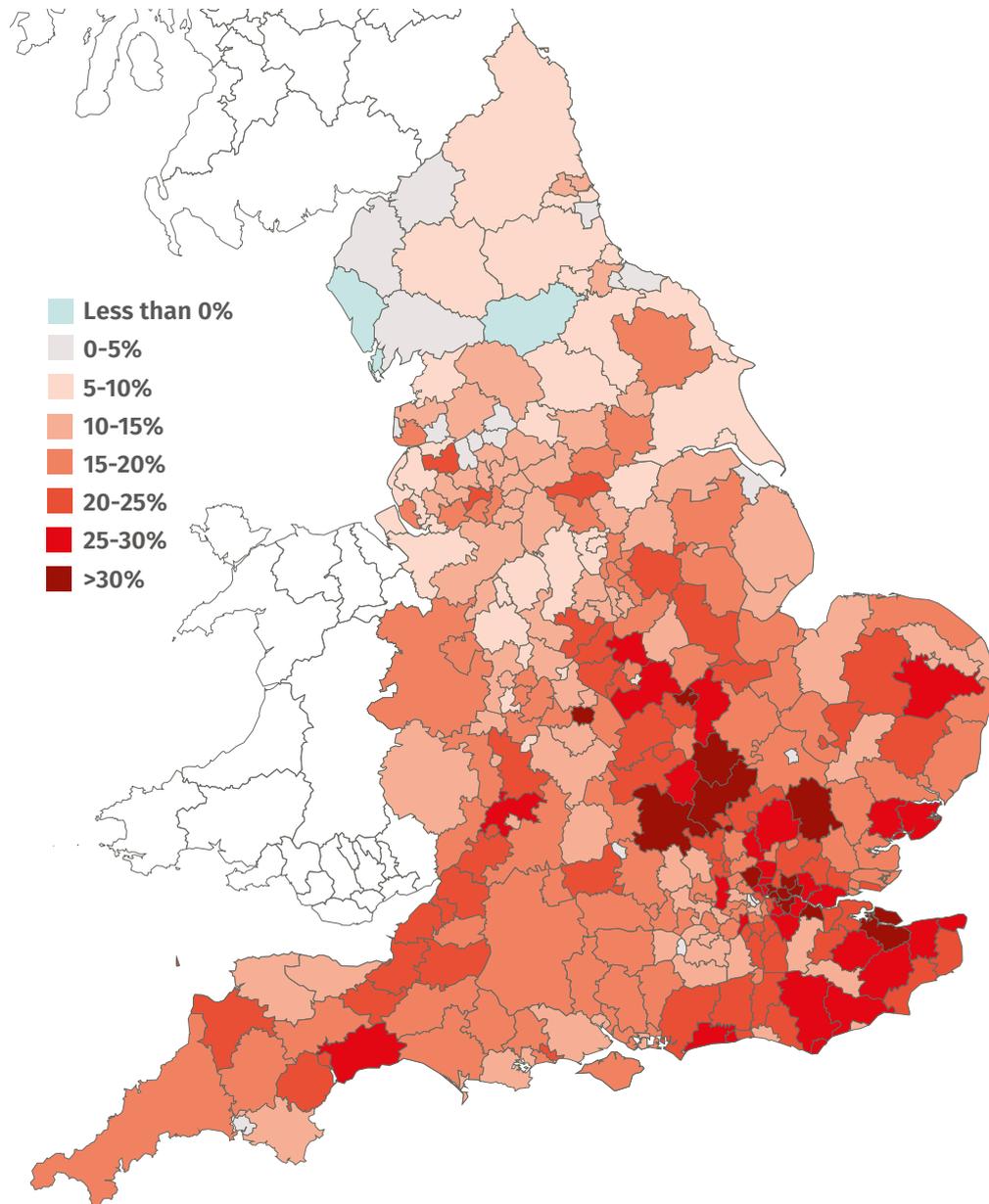
Current forecasts predict most of this additional household growth to be focused in the south east regions (figure 4.1), where supply of households is already severely constrained as a result of Green Belt and other land use constraints (Wilson and Barton 2018). Furthermore, household demand in some northern areas is actually forecast to fall, highlighting the stark contrast in geographical demand for housing.

However, it is not the case that the housing crisis is a result of a lack of land to build on. Only 3 per cent of England is built on, or 1 per cent of the UK as a whole (UK National Ecosystem Assessment 2011).

¹⁵ Large firms are more likely to have retained profit or access to capital to finance relocation.

FIGURE 4.1: MOST HOUSEHOLD GROWTH IS EXPECTED TO BE CONCENTRATED IN THE SOUTH EAST REGIONS OF ENGLAND

Projected household growth by local authority (% change 2016–2041)



Source: Wilson and Barton (2018)

Regional rebalancing is an opportunity to improve the quantity, quality and environmental sustainability of the housing stock

This all suggests that a policy which shifts domestic demand for homes outside of the south east regions and rebalances household growth more evenly across the country will allow supply to expand, unconstrained by rigid land policy, resulting in the building of more affordable homes. Our policy of regionalisation will have such an effect, increasing demand for households where there is currently greater supply and lowering aggregate housing costs.

The quality of the housing stock is also an issue, with house sizes declining in recent years (LABC 2018). By shifting demand to areas with greater land supply, new builds can be built on greater plot sizes, permitting an improvement in living standards.

Furthermore, the house-building boom which will occur to satisfy the increased demand for new homes outside the south east regions is an excellent opportunity to promote green technologies and improve the energy efficiency of the housing stock. Increasing requirements on the environmental standards of new builds – particularly council housing – will reduce the UK's carbon emissions and contribute towards the achievement of the 80 per cent carbon emissions reduction committed to in the Climate Change Act 2008. Additionally, improved energy efficiency can permanently reduce energy bills by £300 each year and improve health and wellbeing (UKGBC 2014). To address these issues, we recommend that private new builds should have an energy performance certificate of at least a C rating. Greater funds will also be devoted towards the enforcement of energy efficiency requirements as 10 per cent of private new builds do not meet legal requirements for energy efficiency (Webb 2010). Where possible, new builds should be connected to low-carbon sources of energy (CCC 2019).

Local authorities should play central role in building affordable homes

To achieve the ambitious expansion of housing stock necessitated by our policy of regionalisation we will empower local authorities to build new affordable homes. Since 1939, the delivery of 200,000 homes per year has occurred largely due to the efforts of major local authority house-building programmes (Wilson and Barton 2018), highlighting that whilst private sector efforts to build new homes would be welcome, the sector has not demonstrated a credible track record of generating the quantity of new households required.

Public involvement and decentralised decision-making of house building to local authorities will help ensure sufficient settlement where it is most needed. This will prevent the rise of uninhabited cities (Alghais et al 2018). These schemes will be buttressed with new services and infrastructure, which local authorities will be empowered to deliver alongside house building in an integrated way, as set out in section 4.1.

To facilitate this additional local authority house building programme, we make a number of proposals. Firstly, we would encourage local authorities to utilise the relaxation of the housing borrowing cap on local authorities, allowing them to fund new builds by borrowing. Secondly, we would adopt international accounting conventions to remove council house investment borrowing out of the main measure of government debt. This will encourage further borrowing to fund this investment (Perry 2018). Thirdly, we would end the policy of right to buy. This will allow local authorities to increase their stock of affordable housing without uncertainty of their revenue streams from this policy. It will also increase the long-term income from social housing, ensuring the sustainability of local authority home building. Fourthly, the increase in affordable housing will result in a reduction in housing benefit, which we propose is instead funnelled back to local authorities to fund additional housing and the mobility fund that we propose in section 4.2.

More affordable housing releases funds for productive investment and improved living standards

The shift in demand from high land-value regions to lower land-value regions will not only increase the number of households – providing an opportunity for people to live in more spacious, higher quality homes – but will reduce the price of such housing stock in real terms. In the UK, housing represents 13 per cent of households' weekly spending (ONS 2019e), rising to 19 per cent in London.

This demonstrates that increased housing supply (which will lower prices), the increase in council homes providing affordable rent, and households relocating to cheaper cities, will lead to greater disposable income for a vast majority of households. This could then be spent on investment in more productive assets or on consumption goods, generating productive economic growth.

A further benefit of regionalisation and our housing policy is that money spent on housing will be directed towards the construction of new homes, rather than speculation in the existing stock. With current demand focused in a narrow area, heavily supply constrained, housing demand only serves to push prices up. This makes housing unaffordable for many and does not generate economic growth, instead concentrating economic wealth in an unproductive asset. New construction will directly result in economic growth, and the relaxation in house prices will reduce intergenerational as well as regional inequality. Lower house prices will also mean that less wealth is tied up in mortgage finance, an unproductive asset, and can instead be better put to use in investing in productive assets (Ryan-Collins 2018) or be used on consumption to generate improved standards of living.

To further reduce the reliance on housing as an investment and to encourage geographical labour mobility we propose the ending of the government's help to buy scheme. This policy acts to reduce labour mobility, tying owners to a particular geography, and puts upward pressure on the housing stock as a form of investment. Instead, we suggest that current expenditure directed towards the help to buy scheme (£10 billion between 2013–18) (MHCLG 2018) is instead offered to local authorities to support financing the increase in high-quality council housing and to help fund the mobility scheme.

4.4 ESTABLISHING STATE INSTITUTIONS OUTSIDE OF THE CAPITAL

The objective of this policy is to encourage interdependent firms (clusters) to coordinate relocation in response to the benefits of our policy of regionalisation. This is because their need for coordinated action prevents them from moving independently. For example, empirical evidence suggests that the decisions of relocating firms are influenced by the number of firms from the same industry in the destination location. This suggests that firms relocate to areas where they can benefit from agglomeration benefits, even after accounting for other reasons for relocating (De Bok and Oort 2011, Haroon and Chaudhry 2015).¹⁶ Furthermore, other evidence suggests that firms will relocate when the external benefits from agglomeration in another destination are large enough, especially given the costs associated with relocation (Hong 2013).¹⁷ This evidence suggests that there is a threshold effect: the decision of a few firms to relocate from the London and South East to the other regions can naturally induce the remaining firms in the same sector or supply chain to also relocate.

To this end, we propose that government bodies, civil servants and state institutions are moved out in unison to areas where they can enhance existing clusters and preserve agglomeration benefits in the destination region. Such a move would signal the government's long-term commitment to the policy of

16 De Bok and Oort (2011) examine the issue of firm relocation and find strong evidence that relocating firms prefer to move to areas where they are near other firms in their same sector. They find this to be particularly true for the producer services, manufacturing, constructions and transportation sectors. The authors interpret this as evidence for the existence of Marshallian externalities and the desire for relocating firms to wish to maintain such agglomeration benefits. Similarly, Haroon and Chaudhry (2015), studying the location decisions of Pakistani firms in the Punjab, finds that the number of firms from the same industry in an area has a positive and significant impact on new firm arrival (including the establishment of new firms).

17 When the own industry's share of employment in all manufacturing industries becomes doubled through relocation, the probability for establishments to relocate over a long distance rises by 17 per cent.

regionalisation and give private firms in the same cluster the confidence they need to follow the public sector's example.

The literature provides some evidence of positive economic multipliers from moving state institutions to a city (after accounting for displacement effects) alongside the agglomeration benefits that motivate this policy (Faggio et al 2018). There is also evidence that relocation of state institutions results in an increase in social amenities which drives job creation (Becker et al 2018).

Consequently, we recommend the continuation, and extension of the Lyons Review (2004) along the lines of the criteria set out by Smith (2010). This involves the movement of 15,000 civil servant jobs out of London to other regions, stimulating growth in these underdeveloped areas and cutting costs for the taxpayer. In some instances, this will involve particular departments moving to be closer to industrial clusters. This will give these departments greater access to local stakeholders which has the capability to drive more informed and therefore effective policy.

The evidence provides little basis for creating clusters from scratch,¹⁸ so government policy should focus on developing regional areas of comparative strength. Successful implementation of this policy requires a detailed understanding of regional capabilities. We therefore leave decisions on the location of specific sectoral clusters and the movement of specific departments to an independent review which would analyse the comparative advantage of different regions and merits of moving different departments and state institutions. The board of this independent review will incorporate the views and judgements of local stakeholders, who have a better idea of local strengths and weaknesses than far-removed civil servants in London.

We acknowledge the failure of past attempts to rebalance the economy by moving state institutions outside of London. For example, the relocation from the capital of organisations such as the Inland Revenue relocation to Nottingham, the ONS to Newport and the DVLA to Swansea. However, past policies have focused on moving low-skilled jobs such as administration out of London, rather than high-skilled workers or senior positions. These attempts have also been isolated incidents and independent of any broader strategy.

Furthermore, such attempts have been hampered by difficulties both retaining and recruiting staff (Watts 2007). However, our proposals would avoid this by:

- decentralising the activities of government to cities with the potential to become regional hubs (ie places with an existing pool of talent)
- supporting strategic relocation to regions (ie on the basis of supporting our objectives of developing existing clusters)
- implementing relocation alongside our programme of reducing the capital deficit of these regions to make them more attractive places to live
- providing financial incentives to relocate, in the form of 'mobility funds' to cover the costs of relocation.

¹⁸ Van der Linde (2003) analyses 773 clusters and finds that only one had formed as a result of direct government intervention, although many had emerged as a result of less direct government support.

5.

FISCAL AND POLITICAL DECENTRALISATION

The large economic imbalances which exist in the UK originate not only from the excessive concentration of economic activity but also from the underrepresentation of regional and local interests in the political system. Wales, Scotland and Northern Ireland enjoy comparatively more regional powers than England as a result of devolution. However, they make up only 16 per cent of the UK by population.¹⁹ The share of expenditure on local government services (at 12 per cent)²⁰ and the value of locally-collected tax revenue is also much lower in the UK compared to the OECD average.²¹

In this chapter, we propose further decentralisation of public expenditure from central to local government. We demonstrate how the potential improvements to the incentives, accountability and knowledge of decision-makers can raise the responsiveness and effectiveness of public expenditure to local development needs.

5.1 FISCAL DECISION-MAKING IS TOO CENTRALISED

The UK is one of the most politically centralised countries in the developed world

Local authorities (LAs) – the highest tier of local government in the UK – deliver both statutory and discretionary services. However, fiscal and economic policies are largely determined in London. The responsibilities that LAs do have are dominated by mandatory funding for schools and social care, with a combined share of 76 per cent of LA spending in 2017/18 (Brien 2018). The combination of these statutory responsibilities and the halving of LA funding from central government since 2010/11 (NAO 2018) give LAs little capacity to make discretionary expenditures that support local economic development or are responsive to local needs. Planning and development budgets that cover investments in areas that boost local productivity, for example, were cut by 53 per cent in real terms between 2010/11 and 2016/17 (NAO 2018).

Additional support for local growth is provided, but this is through a complex structure of regional bodies and programmes with overlapping responsibilities. These include local enterprise partnerships (LEPs), enterprise zones, the Growing Places Fund and city deals (NAO 2013a). The scope and funding available for these is subject to the discretion of central government, which hampers their capacity to support development plans that require long-term commitments. This problem is best exemplified by the abolition of the regional development agencies (RDAs) in 2010 and their replacement with LEPs that have lower levels of funding and fewer resources to deliver similar strategic objectives (NAO 2016a).

19 ONS (2018f) source data available here: <https://bit.ly/2KXOxkd>

20 In 2017/18, total local authority services expenditure was £89.8 billion (MHCLG 2019). This compares to the government's total managed expenditure of £802 billion in 2017/18. Source data available here: <https://www.gov.uk/government/publications/spring-budget-2017-documents/spring-budget-2017>

21 Only 35 per cent of public investment (compared to 60 per cent on average across the OECD) is undertaken at a subnational (local) level. In terms of revenue, only 5 per cent (compared to 30 per cent on average across the OECD) are collected on a local level in the UK (OECD 2017b).

These facts characterise the UK, and England in particular, as one of the most politically centralised countries in the developed world (Cox et al 2014). As a result, investments in local economic development – a key tool for reducing spatial inequalities and boosting local productivity – are often underfunded, misinformed and suboptimal.

Decentralised expenditure decisions are more responsive to local needs

Decentralised decision-making of public expenditure can tackle these issues by improving the information that economic development policies are based on, by providing a better incentive scheme for decision-makers to improve the welfare of their constituents, increasing the accountability of politicians and by providing regions with a stronger voice at a national level (Rodriguez-Pose and Bwire 2004, Shankar and Shah 2003).

For example, local politicians are also closer to the public and their constituencies, which improves the information and knowledge that is used to make spending decisions (Faguet and Shami 2008). This allows them to optimise public service provision and tailor policies to the needs and preferences of local residents and businesses (Hammond and Tosun 2009). The result is higher investment in physical and human capital (Blöchliger et al 2013) and a shift in spending from consumption towards productive investment (Frederiksen 2013). As a result, these policies are more efficient and responsive to addressing local needs and supporting productivity growth.

Fiscal decentralisation has been shown to be more effective when it is combined with political decentralisation (Filippetti and Sacchi 2013). The accountability of regional governments with elected representatives is higher because of an increased level of public engagement and the threat of removing unresponsive decision-makers at the ballot box (World Bank 2006). This encourages politicians to better understand local needs, to provide the best possible service and not to be wasteful with resources.

Elected officials with delegated powers and responsibilities can also act as spokespersons and advocate for their constituency on a national level. This would prompt central government to redirect its focus towards areas of the county with the greatest need for investment in local economic development.

To better address local development needs and boost the regional productivity, we propose a principle of ‘fiscal decentralisation’ or an increase in the share of public expenditure for both service and capital expenditures that is distributed by local government.

The specific policies that underpin this principle are detailed below.

5.2 INCREASING THE MANDATE AND CAPACITY OF LOCAL AUTHORITIES TO ADDRESS ECONOMIC DEVELOPMENT

A new layer of regional government will have scale to deliver projects cost-effectively while remaining close to constituents

As detailed previously, the responsibilities for local authorities are wide ranging, but expenditure is dominated by statutory services such as education and social care. A combination of central government grant cuts and increasing demand for statutory services has reduced local authority investment in economic development and services that boost local productivity.

We also believe that local authorities are too small to deliver the wider mandate for local government that we envisage. Large public investments in economic development tend to cross local authority boundaries and scale is needed to

deliver public services efficiently, particularly given the considerable loss to local authority resources following a decade of public funding cuts (LGIU 2019).

While Wales, Scotland and Northern Ireland have devolved governments, England – with a share of 84 per cent of the UK's population – lacks one. In recent years, there has been some devolution of power in England in the form of city deals, combined authorities and functional economic areas (FEAs) (Sandford 2019). This has, for example, led to the first elected mayor outside of London in Greater Manchester and the delegation of powers over public transport, skills, housing, regeneration, waste management, carbon neutrality, planning permission and health spending. In many cases, however, the creation of regional governance has not been accompanied by the transfer of additional powers because of a reluctance of the political elite to shift powers (Ayres et al 2018).

We therefore promote the formalisation of 'combined local authorities' with elected representatives into a new layer of regional government to deliver public expenditures and investments across multiple local authorities to boost economic development. This layer of regional government will be of similar scale to the 'metro mayors' and devolved English authorities that followed the Cities and Local Government Devolution Act 2016 (NAO 2016b). Operating above local authorities, these new bodies will deliver investment and expenditure projects across local authorities.

This scale of delivery ensures that decision-makers are close to constituents, but also have the scale to deliver development projects as cost-effectively as possible.

The first step in this process will be to transfer the mandate of public investments that boost local economic growth from central to this new layer of regional government. These regional governments will gain formal ownership of a single programme that consolidates the numerous and overlapping programmes for regional economic development (LEPs, GPFs).

Increased fiscal autonomy for regions must be preceded by other policies to ensure that public investments are spent effectively. This includes measures that build the institutional capacity of local government to undertake their increased responsibilities and expenditure power (Abdulai 2014, Parker and Serrano 2000, Rodriguez-Pose and Bwire 2004), and the creation of mechanisms of accountability and stakeholder knowledge exchange to reduce the distance between decision makers and the electorate (Azfar et al 1999, Ebel and Yilmaz 2002) and ensure public expenditure decisions are ultimately responsive to local needs (Faguet and Shami 2008). Specific proposals for achieving this are explored further in the implementation section of this report.

To ensure that the new powers for these regional governments are fulfilled and address the needs of local constituents, the leaders of these new regional bodies will be subject to 'metro mayor' style elections.

Larger share of public expenditure will empower local government to attract industry clusters through investment

The share of public expenditure distributed by local government stands at 12 per cent²². We will empower regional governments to design development plans and take responsibility for regional economic policies before increasing the amount of public expenditure that is distributed to local government to 18 per cent over five years. This will be achieved by transferring several central government responsibilities to local government.

22 Source data available here: HM Treasury (2017). <https://www.gov.uk/government/publications/spring-budget-2017-documents/spring-budget-2017>

For example, the proximity between regional politicians and the public makes them better equipped to invest in infrastructure, transport, housing and employment policies. Policies can be tailored to attract and support specific industries in different regional clusters, complementing the policies suggested in chapter 4, and to address local needs more broadly.

Locally raised taxes increase revenues and improve incentives

Furthermore, regional governments must be given fiscal decision-making powers to take control over locally raised taxes and fees.

The academic literature has shown that a decentralised approach of revenue generation increases incentives and maximises revenues. Legislation, similar to the Scotland and Wales Acts (Cox et al 2014), must give more constitutional power to local authorities and regions in order for them to be financially self-sustainable in the face of central funding cuts.

For this reason, a larger share of public revenues should be collected by regions and contribute to their budget. The business rate retained by local authorities must, similar to the fiscal devolution in the Greater Manchester area, be raised to 100 per cent. Since business rates provide a somewhat volatile revenue stream and are based on property value rather than business activities (Walker et al 2017), further taxes must be identified for this purpose.

Plans to decentralise income tax (as is planned in Wales), corporate tax (as is planned in Northern Ireland)²³ and decisions over the council tax cap need to be carefully evaluated to identify potential areas of further devolution.²⁴ Until then, regions must receive more funds from the central government to finance the regional spending increases described in chapter 4.

5.3 DISTRIBUTION OF RESPONSIBILITIES BETWEEN CENTRAL AND LOCAL GOVERNMENT

Fiscal decentralisation must be preceded by greater regional redistribution

Revenue decentralisation entails the risk of worse-off regions generating less revenues because of a weaker economic base (Rodriguez-Pose and Gill 2005) and an increase in regional inequality (Myrdal and Sitohang 1957, Grimm and Klasen 2007). Regions with a weaker tax base are often also the ones requiring most social care services. Full fiscal autonomy under these conditions could exacerbate rather than mitigate regional inequality (Faguet and Shami 2008).

This necessitates a progressive public investment profile that prioritises deprived regions and therefore a gradual 'phasing-in' of fiscal autonomy. As such, central government will retain a role redistributing resources to poorer regions to close the 'capital deficit'. This needs to be done in a manner that does not diminish regions' incentives to maximise their revenue generation.

For this reason, one of the most essential roles of the central government is to redistribute resources to poorer regions. The current plan of the government is to phase out central grants by 2020 and to abolish general revenue support grants (RSG), which aim at supporting deprived areas. This approach neglects the need for supplementary investment to fund and raise economic performance in less economically developed regions (Gwilym 2018). The government should uphold the revenue support grants and allocate parts of centrally raised revenues to

23 For details, see: <https://www.instituteforgovernment.org.uk/explainers/tax-and-devolution>

24 This devolution will be accompanied by strict legislation to avoid a race to the bottom in terms of tax competition. But, one of the most recent policies of devolution of power to federal states in Germany has only found limited evidence for a race to the bottom but instead increased standards and cooperation between regions (Turner and Rowe 2015).

tackle spatial inequality by facilitating equitable public service provision and kick-starting economic development.

As the spatial inequalities are reduced in the long-term, we envisage funding for local growth to be distributed from central government to these combined local authorities on a strictly per capita basis. This long-term policy will depoliticise the allocation of funds across regions and reverse the bias in economic development expenditure against most English regions.

The central government has an important supervisory role in a more decentralised state

The proposed policies provide regional governments with much more powers and responsibilities. While it is in the regions' own interest to deliver, it is the central government's role to ensure the provision of a consistent level and quality of public services throughout the entire country to mitigate inequalities. This could be achieved by formulating guidelines, setting national standards for local public good provisions and monitoring their compliance.

The main aim is to devolve powers to the lowest levels where possible. The execution of these powers is supervised by the overarching body in central government. In other words, where there is a misalignment in incentives or missing institutional capabilities at one level of government, decision-making power would go up to the next level of government. For this reason, central government is better equipped to provide services that involve or benefit multiple regions. This includes, for example, large infrastructure projects, such as railways and motorways.

6.

DECENTRALISATION OF KNOWLEDGE AND BUSINESS BEST PRACTICE

In order to boost the performance of firms in the low-productivity ‘tail’ of firms, we propose to decentralise knowledge. ‘Knowledge’ may relate to any aspects of businesses’ activities, ranging from management practices to inventions.²⁵ Specifically, we propose to remove legal barriers to the re-use of ideas and inventions, and encourage business-to-business (B2B) collaboration through tax incentives.

6.1 THE UK’S INNOVATION PROBLEM

Compared to other western European economies, the UK has a large proportion of both under-performing and very highly productive businesses (Institute of Directors 2018). There are three major drivers of this phenomenon.

Firstly, R&D activity in the UK is low in comparison to other European economies,²⁶ and concentrated among very few firms – almost 80 per cent of business R&D expenditure was accounted for by 400 firms (ONS 2017a). Secondly, while the UK counts many successful innovators – which excel in the ‘R’ of R&D – they lack the capacity to make their innovations progress to the next stages of production (BEIS 2017). Thirdly, UK SMEs lag behind other developed economies in the adoption of technological and managerial best practice (Institute of Directors 2018, OECD 2015c).²⁷

These problems can be addressed through two sets of policies: a reform of intellectual property rights (IPR) which would reduce barriers to the re-use of existing inventions and direct financial incentive to knowledge sharing in the form of tax relief. The first policy would encourage new market entrants to invest in R&D and ‘downstream’ innovations that build upon prior or ‘upstream’ innovations. This is particularly important for the digital sector, which tends to rely on ‘sequential’ rather than stand-alone innovations (Bessen and Maskin 2009, Hargreaves 2011). The second policy would act to encourage the diffusion of best practices and greater collaboration through B2B networks.

The two sets of policies are complementary: reducing the bargaining power of patent holders removes an incumbent’s ability to block downstream innovators and, in some cases, can create an incentive to form an alliance, which would be reinforced by advantageous tax treatment.

25 In addition, knowledge may be codified (eg through intellectual property), or tacit (eg know-how) (Nonaka and Takeuchi 1995).

26 In 2017, the UK’s R&D intensity, or R&D expenditure as a percentage of GDP, was 1.7 per cent, compared to 2.0 per cent in the EU28, 2.2 per cent in France and 3.0 per cent in Germany (OECD 2019c).

27 Based on a survey of 734 medium-sized manufacturing enterprises, Bloom and Van Reenen (2006) find that the UK scored lower than France, the United States and Germany on their indicator of management practices.

6.2 REFORMING INTELLECTUAL PROPERTY RIGHTS

Our focus is on IPRs for inventions. Patents grant a temporary monopoly to inventors, provided that it be made publicly available.

In practice, patents may restrict knowledge diffusion. The first obstacle is that the invention can usually not be used legally before expiry of the patent without reaching an agreement with the inventor. Secondly, although it is possible to patent new inventions that draw on a 'basic patent' (i.e. use existing knowledge to create new knowledge), this does not guarantee that the new invention can be used without infringing on the 'basic patent' (Silverman 1995).

A trade-off exists between knowledge creation and knowledge diffusion

Once generated, knowledge can often be made available at near-zero cost. However, knowledge creators have means of excluding other agents from this knowledge (eg trade secrets or patents). Crucially, policymakers can shape the extent to which knowledge can be excluded by altering IPR, but they face a trade-off between encouraging knowledge creation and knowledge diffusion.

- If a firm's knowledge was openly available, other firms could use it at no cost and would therefore benefit from a competitive advantage over the firm which incurred a cost in developing the knowledge. This would reduce the innovator's incentive to invest in knowledge in the first place (Levin et al 1987).
- On the other hand, if inventors enjoy exclusive rights over their innovation, they are more likely to establish and maintain monopolies until the expiration of their patent. This can result in a lack of competition, leading to higher consumer prices, and to a lower diffusion of knowledge as other firms may not be able to utilise the invention until the patent expires (Hargreaves 2011, Boldrin and Levine 2013). The cost of restrictive IPR is particularly pronounced in sectors, such as digital technologies, where innovations are 'sequential' or rely on previous inventions, as commercialisation of a downstream invention typically requires obtaining a licence from the inventor of an upstream innovation (Bessen and Maskin 2009, Hargreaves 2011).

IPR regimes that favour patent holders can perpetuate a concentration of knowledge in an elite of market leaders and hinder innovation in certain high-growth sectors of the economy, such as information and communication technologies or biotechnology.²⁸ Although the UK has made progress in modernising its IPR regime following the Hargreaves review (Hargreaves 2011) and the Intellectual Property Act of 2014, we propose a more radical set of reforms that would culminate in compulsory licensing regulations, a reduction in patent terms and a potential replacement of patents with other types of incentives.

A reform of intellectual property law will encourage more innovation

To encourage more follow-on innovation, our policies aim to create a legal environment that incentivises collaboration between original and downstream innovators. We propose a two-phased reform of the current system.

Phase 1: Reduce the monopoly rights of patent holders

In the current patent framework, the potential for sequential innovation or improvements largely relies on an agreement being reached between upstream and downstream inventors (Shapiro 2000, Hargreaves 2011). Except under particular circumstances, this process is still largely under the control of the original patent holder, which can choose to refuse any agreement with the

28 See, for instance, Hall and Pesenti (2017) on the growth potential of the artificial intelligence sector in the UK.

inventor of an improvement.²⁹ Typically, this would occur when an incumbent wishes to prevent new entry into their market niche (Feldman 2008). This, however, would lead to a clear social loss as the benefits from an innovation may be lost until the expiry of the original patent, and consumers would pay higher prices due to the lack of competitors.

To avoid this, we propose introducing a system of compulsory licencing, whereby patent holders would have the right to royalties but not to prevent the use of their invention by other parties (Posner 2012).

Due to higher costs (eg R&D expenses), some inventions may warrant a temporary monopoly or higher licensing costs. On the other hand, some downstream innovators may not be able to face high licensing costs – eg small, young and credit-constrained businesses (Boldrin and Levine 2013). Hence, these situations should be evaluated on a case-by-case basis by an independent expert body such as the Intellectual Property Office, which would determine an appropriate licencing fee based on the costs of upstream innovation and the circumstances of the licensees. This objective, transparent yet flexible process for granting licences would cut wasteful patent infringement litigation costs which can deter innovation and undermine competition.

It should be noted that, although licencing would be compulsory and enforceable by the Intellectual Property Office, firms may decide to settle privately on an agreement as this would give them more control over the terms of the licencing arrangement. This incentive to cooperate may trigger deeper collaboration between incumbents and new entrants, and lead to synergies. For instance, incumbents could contribute capital (eg research facilities, funds etc) while new entrants may bring innovation, dynamism and flexibility (see discussion below and Harford 2018). In that sense, our policy of compulsory licensing ties in directly with our policies encouraging B2B networks, which we turn to shortly.

Phase 2: Reducing the term of patents and replacing patents with alternative incentives

It has been argued that with some exceptions (eg the pharmaceutical sector), the 20-year validity of patents is excessively large in proportion to the costs of developing an invention (Posner 2012). We therefore propose reducing the length of patents. This would shorten the flow of royalty payments from downstream to upstream inventors. If the impact of this policy on innovation is found to be positive, it could culminate over the long term in a complete removal of patent protection and its replacement with alternative incentives to innovate such as prizes and regulated pricing (Boldrin and Levine 2013, Kremer and Williams 2009).

6.3 SUPPORTING B2B NETWORKS THROUGH A KNOWLEDGE-SHARING TAX RELIEF

Our second policy geared towards the decentralisation of knowledge involves directly encouraging the formation of B2B networks for the sharing of knowledge (eg innovation and management best practice). Several promising government programmes are already in place to encourage these networks through various funding schemes (eg Innovate UK's collaborative R&D funding competitions),³⁰ coordination and support initiatives (eg Innovate UK's Knowledge Transfer

29 There are, however, boundaries to patentees' bargaining power: for instance, the Controller General of Patents, the head of the Intellectual Property Office, has the power to limit patentees' monopoly rights if these are "against the public interest" (Intellectual Property Office 2019). Nevertheless, compulsory licencing is currently rarely used as competition law is usually more effective at tackling abusive monopoly (McCall, Epping and Thompson 2013). Furthermore, an application for a compulsory licence needs to be made at least three years after the granting of the patent. Hence, although there are ways around a patentee's refusal to cooperate, these can be lengthy and/or costly (eg legal proceedings).

30 See Innovate UK (2016).

Network).³¹ We propose to complement these schemes through a knowledge sharing tax relief programme.

B2B networks are channels for knowledge diffusion

In thinking about how B2B networks can help raise the productivity of firms in the low-productivity ‘tail’, it is useful to focus on collaboration initiatives between firms with asymmetric characteristics (eg joint initiatives between low- and high-productivity firms) in order to gain an understanding of why well-performing firms would benefit from raising the productivity of low-performers. We concentrate on two examples of B2B networks, each addressing one of the problems outlined in section 6.1, namely the low rate of innovation commercialisation, and the low adoption of best practices.

Benefits of knowledge sharing: ‘Innovation meets capital’

Consider a small innovator (eg a university spin-off) and a large enterprise that possesses substantial capital resources (eg research labs, production plants). Both entities have incentives to collaborate: on the one hand, a small and young innovator may be in need of a manufacturing plant or marketing know-how in order to commercialise one of their innovations on a large enough scale to meet the fixed costs of its research. On the other hand, a well-established large enterprise may face more difficulties than its small, young and flexible counterpart in implementing certain ‘architectural’ innovations that require substantial changes in its organisational structure (Henderson and Clark 1990, Harford 2018). Therefore, successful collaboration should enhance the productivity of small innovators (through capital availability and economies of scale), but also facilitate innovation adoption by established firms.

It should be noted that in many cases, the transformation of early-stage innovation into a commercialised and profitable product requires time. However, ‘patient capital’ is generally scarce in the UK, in part due to institutional investors’ preference for more liquid assets (Patient Capital Review Industry Panel 2017). Tax incentives would therefore act as a premium on investment and would offset this liquidity preference to a certain degree.

Benefits of knowledge sharing: Integration of supply chains

High-performing firms have a stake in the productivity of the firms that participate in their supply chain (Haldane 2018). For instance, they may be willing to support vertically linked peers by investing in common supply-chain management software, common databases or share their management practices to smooth the integration of workflows (Institute of Directors 2018). The better functioning of their supply chains is a natural incentive for high-performing businesses to share knowledge.

However, the process of sharing some types of knowledge such as management practices or know-how can entail a cost (eg associated with training). Hence, there may be cases in which the costs of delivering knowledge exceed the returns from doing so. Tax incentives could partially offset these costs and may encourage well-performing businesses to widen their supply chains and expand their knowledge-sharing networks.

Knowledge-sharing tax relief will encourage business collaboration in innovation

A knowledge-sharing tax relief scheme can tip the balance of costs and benefits of inter-firm knowledge sharing. The tax relief would make the amount of knowledge shared by firms tax-deductible. Furthermore, the number of partner firms involved in collaboration would increase the amount of tax deductibles – this represents an incentive to disseminate knowledge more widely among a greater number of firms.

³¹ See Innovate UK (2019). Existing business-led knowledge transfer network initiatives include the Productivity through People programme led by the Productivity Leadership Group (BEIS 2017).

To ensure that knowledge-sharing is not limited to an elite of already productive and/or large firms, but benefits the whole spectrum of enterprises (including firms at the 'tail' of the productivity distribution), tax relief should be based on the profitability, size and/or age of partners (eg prioritising young, smaller and/or currently unprofitable enterprises).

It is common practice to subsidise externalities, or behaviours whose social benefits exceed private returns. Although our proposed policy would operate through the tax rate, it would in effect subsidise knowledge sharing.

The tax deduction will depend on the value of the invention

The tax deduction would be determined based on the value of the knowledge shared. This valuation exercise could draw on existing methodologies for valuing intellectual property and could be based on Intellectual Property Office (2016):

- the net present value of the knowledge: the deductible profit would be proportional to the increase in the knowledge-receiving firm's profits resulting from the shared knowledge
- the market value of the knowledge: this equals the value of what is offered in return by the knowledge-receiving firm (eg labour or capital commitment).

When feasible, the first method would be preferred as it would make tax relief proportional to the spillover benefits generated by knowledge sharing and would therefore incentivise the knowledge sharing entity to ensure that the knowledge is taken on by its partner, ensuring optimal delivery. This is particularly important when considering the sharing of know-how, which typically involves training and is therefore costly from the perspective of the knowledge-sharing entity.

Knowledge-sharing marketplaces can match ideas to projects

Well-functioning knowledge-sharing markets can facilitate the second valuation method, as well as facilitating a mutually beneficial transaction. A well-designed market would allow knowledge 'buyers' to coordinate and collectively negotiate the terms of an agreement with knowledge-holding entities. This bargaining process would also guard against firms' incentives to exaggerate the value of their knowledge assets (in an attempt to maximize tax relief) because of buyers' incentive to pay an affordable price.

To achieve this, the government could create a regulated knowledge-sharing marketplace to match knowledge-rich businesses to firms offering other inputs such as capital or complementary knowledge to a project.³² The pooling of knowledge buyers would increase the value of the tax relief for the knowledge-sharing firm, whilst the threat of collective withdrawal of all knowledge buyers could deter overpricing. In addition, government regulation would ensure that no party to a transaction abuse their market power. The specific setup of this marketplace will require an in-depth feasibility study, but we envision this to share many of the features of the 'Knowledge Hub', a network for collaboration and knowledge-sharing designed for the public and non-profit sectors globally (Wilson and Lilly 2016). In particular, the matching of sellers and buyers would be done online, thereby contributing to a reduction in the reliance of knowledge spillovers on geographic proximity.³³ This would dampen agglomeration benefits in the south east regions of England and help facilitate the 'Big Push' towards regionalisation.

32 For a general discussion of knowledge-sharing marketplaces, see for instance Bryan (2004).

33 On 'electronic' knowledge-sharing marketplaces, see Müller et al (2002), Kafentzis et al (2004).

7. DECENTRALISATION OF FINANCE

This chapter describes the main problems with the UK's financial sector, including the underfunding of innovative SMEs, bias towards collateralised lending, and excessive size and concentration. Several policies are proposed to advance the goal of a local, efficient and community-minded financial sector, including the establishment of community banks, greater branch independence of the Royal Bank of Scotland (RBS), and various measures to encourage social impact investing.

7.1 PROBLEMS WITH FINANCIAL INTERMEDIATION IN THE UK

Innovative small businesses outside London struggle to access credit

Across the developed world, bank lending to small and medium-sized businesses fell sharply after the financial crisis and did not recover even as economies returned to growth. In the UK, net lending to small businesses has been negative since 2012 (BBA 2017). The gap between finance offered and finance required has been estimated for UK SMEs at £10-£11 billion in 2013 (NAO 2013c). In particular, the supply of loans to fastest-growing small firms fell short of demand by £170-£870 million in 2014 (BBB 2017). Small businesses are still 10 per cent less likely to have their loan application approved than medium-sized businesses. These businesses are also most likely to cite the cost of external finance as an obstacle to investment (Stirling and King 2017).

The problem is most pertinent for small businesses outside the south east regions. Unlike SMEs in London and the South East, businesses in the rest of the UK struggle to access non-bank sources of funding such as private equity, venture capital, peer-to-peer lending or crowdfunding. London-based firms account for only 20 per cent of high-growth firms across the country but receive almost 50 per cent of equity investments and more than 60 per cent of venture capital investments (Hatfield 2017).

The perceived higher risk of lending to small businesses is not the only cause of the shortfall in financing. SMEs typically require smaller loans, which large banks may find insufficiently profitable due to costs associated with credit approval assessment.

Leveraging regional or industry-specific expertise can reduce such transaction costs. Moreover, one bank's provision of credit sends a signal of creditworthiness that can crowd in funding from other bank and non-bank sources that did not perform their own detailed check.

However, large London-based banking groups find it difficult to combine their pledge to maximise shareholder value and to develop expertise in smaller regions or industries. Bank lending may thus flow into sectors or places that already have plenty of it and stay away from those that are starved of credit (Sandbu 2018). This can only reinforce the high and growing productivity differences across UK firms, discussed in chapter 2.

Earlier government efforts to repair the UK's credit markets, such as the 2012 funding for lending scheme, did not address the root causes for the underfunding of SMEs. The measure temporarily subsidised lending to SMEs without resolving the underlying supply-side problem of a centralised banking sector that is unable to reduce the risk and costs of lending to SMEs. As evidenced by the continued problems of SMEs to access finance, this subsidised lending scheme did not materially improve credit conditions before it was phased-out last year.

Credit is concentrated in high-collateral, low-productivity uses

Collateral requirements hinder credit access further, as many small firms have insufficient assets that can be used as collateral. This problem is acute for the fast-growing high-productivity firms in the knowledge economy where business plans are based on ideas rather than products. Unlike physical assets (such as buildings or machinery), intangible assets (such as intellectual capital) have low or no collateral value. Consequently, collateralised lending results in an under-provision of funding to innovative firms, and over-provision to secured but unproductive uses such as mortgage finance (see section 4.3). The IMF (2017) estimates that increased firm investment in intangible assets explains a substantial share of bank credit reallocation from businesses lending to residential lending – a pattern observed over the last four decades.

An oversized financial sector is costly to the economy

On the surface, the financial sector's high productivity, at 50 per cent above the UK's 2017 average, suggests that it is an engine of growth for the whole economy (ONS 2017b). However, a growing amount of evidence highlights the costs that the UK's outsized financial sector imposes on the rest of the economy.

Firstly, a large financial sector involves systemic risk that can hit the wider economy and trigger large taxpayer-funded bailouts. The 2008 crisis hit the UK with particular force, resulting in lost output, higher sovereign debt, post-crisis austerity and reduced social cohesion. In quantitative terms, the total GDP loss imposed by the financial sector on the rest of the economy were estimated at £1.8 trillion (Baker et al 2018). The contribution of the UK's financial sector to the economy must therefore consider the implicit government subsidy to the financial sector and the risk to prosperity that any financial crisis represents.

However, there are other ways in which finance damages the non-financial economy. Firstly, the high productivity of the sector raises the exchange rate and therefore reduces the competitiveness of exporting areas of the economy. Secondly, the high wages allow the sector to monopolise talent at the expense of sectors that innovate and contribute to long-term prosperity. For example, Cecchetti and Kharroubi (2012) find that R&D-intensive sectors (eg manufacturing) suffer from financial booms as they have to compete with finance for external resources. The total value of losses to the UK that can be attributed to this distorting role of the financial sector were estimated at £2.7 trillion (Baker et al 2018).

7.2 CREATING A LOCAL, EFFICIENT AND PUBLIC-MINDED FINANCIAL SECTOR

The existing structure of the UK banking sector is part of the problem and as such ill-suited to address these challenges. The UK banking sector is dominated by only four large banks, which focus solely on maximising shareholder value and are nearly all centred within a few square miles in London. The centralised governance of these institutions prevents the development of specialised local expertise and networks, instead encouraging risk management through collateralised lending. The major banks are all heavily entangled in the international financial system and exposed to global financial shocks. The banks' size and potential focus on higher-return international markets can lead to an underfunding of the domestic

economy, especially SMEs. Moreover, as the 2008 financial crisis demonstrated, the UK's major banks are 'too big to fail'. This allows them to benefit from an implicit (taxpayer-funded) insurance against default, which encourages risky behaviour.

To reform the current system, we present several policies that will encourage the development of a local, diverse, public-minded banks and capital markets that provide credit to the domestic economy, focus on business lending, do not exclude SMEs, fund more projects with social and environmental return, and retain profits within the community.

A new network of community banks will provide a local alternative to large banks

We take as inspiration the community banks in Europe,³⁴ which tend to be small, tied to a specific community and have missions that are not completely profit-driven (Sandbu 2018).

The proposed network of community banks would be established by legislation and tied in ownership structures to local authorities, but each branch would retain managerial independence.

Community banks can help solve the shortfall in SME investment funding, particularly outside London and the South East where non-bank finance is less accessible. Specialised local and sector knowledge that community banks would develop will make it easier to make well-informed lending decisions, reducing transaction costs. A bank with expertise is also likely to be less reliant on collateral, basing instead its lending decisions on an understanding of the loan applicant's business model and market environment. This will lead to a better access to capital for SMEs, particularly the fast-growing, productive businesses that build on intellectual capital rather than tangible assets. Furthermore, the provision of credit to previously under-supplied areas sends a positive signal of creditworthiness to other investors, crowding in finance from conventional banks and capital markets.

The modest size of the community banks and their decentralised, stakeholder-focused operations need not impair their commercial success. On the contrary – the ability to fund projects in sectors or regions under-provided by conventional banks can give such banks a competitive edge. Unconstrained by demanding targets for short-term earnings – characteristic of large commercial banks – community banks could offer smaller loans to a broader spectrum of businesses.

Owned by local communities, the new banks will generate wealth that is retained in the community and broadly shared. Moreover, given that we propose that the banks are set up by legislation, their objectives can be explicitly tied with social and environmental goals. The banks can operate a 'dual bottom line' whereby each of the independent community banks pursue both profit and impact (social or environmental).

This policy suggestion bears similarities to the regional development banks proposed by Jacobs et al (2017). The key difference is that the primary source of funding for the banks under our proposals comes from retail deposits rather than public funds. Community banks could attract savers from the household and business sector by offering a conservative, community-oriented business model, but also by a higher deposit rate than conventional banks. Community banks may be able to offer higher deposit rates because of their weaker emphasis on profit margins, but also thanks to their potentially lucrative operations in niche markets under-served by other lenders. The proposed community banks are also similar

34 For example, Germany's Sparkassen and Landesbanken or Spain's cajas de ahorros.

to credit unions,³⁵ although they would principally focus on lending to businesses rather than households.

A potential danger of community banking is that it locally concentrates not only the profits, but also the financial risk. Large banking groups are able to pool risks from their diverse operations across different regions and market segments. Local community banks are more exposed to negative events that affect a particular area. On the other hand, their isolation from global financial markets also means that they are less exposed to credit cycles and financial crises.

RBS should pioneer innovative governance models

Our second policy proposal is that RBS, majority-owned by the state since the 2008 bailout, becomes a market leader in decentralising its decision-making processes. Following the example of banks such as Handelsbanken, where branches set their own budgets and strategy, the government could exercise its power as owner of RBS to pioneer innovative governance strategies.

7.3 A GREATER ROLE FOR SOCIAL AND IMPACT INVESTMENT

Scaling social impact investment will bring funds to valuable projects neglected by conventional investors

Our third policy proposal is to encourage more social impact investing (SII). SII is a tool to leverage investor funds towards investments that incorporate profit with the notion of social return. The social return of a project is often greater than the private return to the investor because it includes outcomes that the investor cannot appropriate or which do not have a market price, such as reductions in inequality, environmental benefits, or improvements in human capital. As a result of the social return being greater than the private return, there are many projects which should be funded based on their total return to society but miss out on funding because most investors only consider their private return.

The government plays a catalytic role in the SII ecosystem through a combination of tax incentives, subsidies and co-investments such as social impact bonds (OECD 2015a) to drive the demand and supply for SII. By creating potentially profitable opportunities in underfunded policy areas, SII can attract private capital and free-up public funds for other areas.

Despite UK efforts to stimulate the SII market through the establishment of the UK Social Impact Investment Task Force and the formation of the world's first impact investment bank (Big Society Capital), the full potential of SII is yet to be reached.³⁶ We therefore suggest the implementation of the following policies.

- Appoint a minister dedicated to SII: prioritisation and support for SII would help stimulate SII across different markets (Social Impact Investment Taskforce 2014).
- The establishment of an Inclusive Economy Catalyst Fund to leverage capital for underdeveloped regions in the UK (UK National Advisory Board 2017). The process of investment capacity building will be essential to the success of this policy. Therefore, we propose using the local enterprise partnerships (LEPs) funded by BEIS through its industrial strategy.³⁷ Scaling up these local bases and providing them with the necessary support (staff, infrastructure and

35 Fast growing interest and membership in these unions (BoE 2017) indicate the demand and need for cooperatives in financial services.

36 According to the UK National Advisory Board on Impact Investing (2017), out of around £250 billion a year of government spending on social services, up to £150 billion could be spent to leverage impact investment.

37 BEIS funded LEPs to develop local energy strategies. This infrastructure could be expanded to support local social investment strategies as well as clean growth strategies.

expertise) will create a pipeline of impact investment opportunities³⁸ and inflows of capital (from private and public³⁹ sources) into underdeveloped areas of the country.

- Expand social investment tax relief to all impact businesses. Currently, a 30 per cent tax break is given to individuals investing in qualified non-profits; however, the number of qualifying organisations could be expanded to cover more social impact businesses (Global Steering Group for Impact Investment 2018).

In order to unlock the full benefits of SII, decisions on public commitments to SII should be made locally rather than centrally, with central government maintaining a responsibility for strategic planning, negotiation with private investors and the promotion of SII.

Impact investment can be developed through peer-to-peer lending

Peer-to-peer lending is a fast-growing area of financial intermediation in the UK. Business P2P lending provides funds almost exclusively to small companies, often without requiring collateral (FCA 2018). This way, this innovative financial instrument is helping to fill the gap in providing access to credit to fast-growing SME that are underfunded by the banking sector. P2P loans made up only 0.9 per cent of new loans to small businesses in 2012, but this has since climbed to a staggering 29.2 per cent (Zhang et al 2018).

Moreover, P2P loans are helping to address the UK's regional imbalances. Although London and the South East both provided and received the highest amount of P2P funding, the two regions are net providers of funds, while most of the UK's other regions are net recipients (Zhang et al 2017).

Despite the encouraging development in P2P finance, an important source of concern is the level of risk retail investors may be exposing themselves to. Unsecured loans to small businesses are risky and the performance of P2P loans is yet to be tested in a business cycle downturn (FCA 2018).

To encourage more social impact investment and help reduce the risks in the P2P business lending sector, we propose that the government:

- uses its extensive knowledge and expertise in social and environmental impact to help bring projects with a substantial social return to the existing P2P platforms. The government could, for example, provide a certification for the businesses and initiatives that have positive social return. Public-minded investors could then choose to invest in projects and causes that deliver financial as well as social return. Bringing SII closer to the tens of thousands of savers on P2P investment platforms could help develop the SII market.
- provides limited guarantees on loans with the SII certificate. Selected businesses and charities, whose work contributes to social objectives, will be able to offer investors a safer return. The investor will thus also have a financial incentive to loan funds to socially beneficial projects. The lower financial return will be compensated by lower risk. This could also help reduce the aggregate risks P2P investors are currently exposed to.

Although the risk will be merely transferred to the state, the state will be in control of who receives the guarantee. The SII certifications would be granted through a transparent and fair application process, which would include due diligence checks.

38 These opportunities will primary focus on housing, regeneration, broadband connectivity, energy infrastructure, cultural assets and social enterprises.

39 Local authorities can take advantage of low interest rate loans from the Public Work Loans Board (PWLB) to invest in such projects.

8. DECENTRALISATION OF CAPITAL

UK corporate governance emphasises the interests of shareholders in the decisions of firms, ignoring other stakeholders – such as employees, communities and suppliers – who all have stake in the long-term success of a business (Lawrence 2017, Gamble and Kelly 1996).

This shareholder-only model has contributed to a culture of short-term profit extraction (Tomorrow's Company 2016, The Investment Association 2016) – the consequence of reduced shareholding lengths (Haldane 2015), and a growing trend of international shareholders who are detached from corporate decision-making (Williamson et al 2014). As a result, corporate strategy focuses on cost-cutting at the expense of investment. These firm-level decisions aggregate, contributing to a macroeconomic picture of low investment and low productivity.

To overcome this, we propose a local stakeholder model of corporate governance. This will incorporate a more diverse set of views in decision-making and allow businesses and communities to make coordinated investments in local resources (eg infrastructure, labour, supply chains), improving firm-level and macroeconomic outcomes as stakeholders have information, expertise, resources, and long-term incentives, which make them effective business stewards (Barton 2011). As a result, firms may invest more and are more likely to avoid costly conflicts with stakeholders (eg labour disputes, regulation and environmental degradation).

More specifically:

- a 'community-centred' model would encourage firms to internalise the negative externalities (costs) that they would potentially impose on stakeholders (eg loss of jobs following a takeover or pollution) (Gamble and Kelly 1996). This could avoid conflict that may impose long-term costs on the firm – such as those associated with labour disputes, government-imposed regulation, hostility from consumers, environmentalists and the general public.
- local communities also represent large resource pools that firms can tap for labour, supply chain purchases, financing, business support, and ultimately customers. By encouraging engagement with community decision makers, a stakeholder model would allow firms and communities to better understand the quality of these local resources. In the long run, this dialogue will encourage coordinated investments between firms, stakeholders and local communities that sustain the competitiveness of these businesses and anchor these businesses much more deeply in their local communities (in terms of job creation, local purchasing, and support for mutually-beneficial investments). For example, some investments in local infrastructure and amenities may only take place with contributions from local authorities and firms in partnership. Having made these investments, these businesses have a long-term stake in their local communities: they are more likely to create and retain jobs and less likely to relocate (The Ownership Effect Inquiry 2018). Community capitalism can also foster greener growth as the local supply chains that they support are characterised by lower transport costs.

- against the paradigm of the homogenous multinational, these community-centred businesses will also gain from the brand loyalty in the local communities that they will increasingly serve, and among increasingly socially-minded consumers more generally (Kelly 2016).

In addition, community-centred capitalism will help stem the declining legitimacy of business at a time where businesses, particularly large multi-nationals, are perceived to profit their shareholders without contributing to economic, social or environmental challenges (eg creating jobs, protecting the climate or generating revenues for increasingly cash-strapped governments) (Barton 2011, Porter 2012).

To catalyse this shift, firm and community objectives need to align; a mechanism must exist to allow businesses and communities to dialogue and act on mutual objectives, and ‘community capture’ must be avoided so that the investment decisions are not unduly influenced by businesses.

8.1 GREATER REPRESENTATION OF STAKEHOLDERS IN CORPORATE DECISION-MAKING

We advocate reforms to the Corporate Governance Code to support the principles of stakeholder rights to consultation, stakeholder rights to nominate board members, and requirements that boards report on how they have considered stakeholder impact in decision-making.

Based on the successful German example of legally defined labour representation in companies’ supervisory boards, we propose the introduction of a law that requires every company⁴⁰ with more than 500 employees to allocate a third of the seats on their supervisory board to labour representatives (Fauver and Fuerst 2006). These boards in turn elect the executive with day to day power to run the company (McGaughey 2017). The representatives can include elected staff members and union members. Just as the members selected by the shareholders, each labour representative has a vote and makes their decisions in the interest of the firm. Because labour representatives are more likely to protect business and employment opportunities, they might act in a more long-term, stakeholder-friendly manner than shareholder representatives and “constrain management from reacting to the excesses and short-term failures of capital markets” (Jackson 2005).

In addition to labour representation, it is also possible to include other stakeholders (eg representatives appointed by local authorities or regions) with or without the power to vote. These reforms will align firm and community objectives, encourage dialogue and may unlock ‘additional’ coordinated investment by businesses and local authorities that sustain competitive advantage and localisation.

8.2 COMMUNITY BONDS

We propose the creation of local authority issued bonds which mature after the achievement of community-defined localisation targets over time (eg local job creation, co-investment). These bonds could represent a latent store of tax incentives (eg business rates relief), with value tied to the degree of localisation and additional local tax revenues that can be attributed to localisation. These bonds will ensure a localisation benefit from local tax-incentives, and further alignment of firm and community objectives.

This community centred model would encourage firms to internalise the negative externalities that they impose on stakeholders (eg job losses or pollution). It would benefit firms and encourage growth as local communities have

40 The German law applies to public companies, limited partnerships, limited liability companies, mutuals and cooperatives.

firm-specific knowledge which can improve the management of firms. Furthermore, dialogue will encourage coordinated investments by firms and local authorities (eg in local infrastructure, supply chains, labour) which can sustain the competitiveness of these businesses, directly and through the increased brand loyalty of local customers. Firm growth under this model is also likely to be greener as local supply chains are characterised by lower transport costs.

9.

TRANSITION AND IMPLEMENTATION

The success of our blueprint relies on all our policies being implemented in tandem to overcome the problems outlined in chapter 3. The existing evidence of the effectiveness of each of our policies independently does not provide a credible guide to the scale of the impacts that can be expected if our policy of decentralisation is implemented wholesale.

Nevertheless, the UK's existing regional imbalances and institutional endowments mean that the precise sequencing of these policies are critical to the achievement of a 'productivity dividend' from decentralisation. More specifically, the literature highlights the following points.

- Political representation is not a sufficient condition for achieving spatially inclusive development (Kifordu 2011). It must be preceded by attempts to build institutional capacity and the commitment of decision-makers to their constituents (Abdulai 2014).
- Fiscal autonomy for regions must be preceded by other enabling policies to ensure effective public investments in regions do not detract from overall growth. These enabling policies include:
 - building institutional capacity within local decision-making institutions (Parker and Serrano 2000)
 - creating mechanisms of government accountability and stakeholder knowledge exchange to ensure public expenditure decisions are ultimately responsive to local needs (Azfar et al 1999, Ebel and Yilmaz 2002).
- Where large regional inequalities exist, public expenditure must prioritise deprived regions and the fiscal autonomy must be phased in gradually. This is because deprived regions face a path dependency problem – ie poor infrastructure, smaller tax bases, less access to financial markets, less influence over the discretionary aspect of central government finances and fewer or smaller input and output markets (Rodriguez-Pose and Gill 2005). Full fiscal autonomy under these conditions could exacerbate rather than mitigate regional inequality (Fagueta and Shami 2008). This necessitates a progressive public investment profile that prioritises deprived regions and therefore a gradual 'phasing-in' of fiscal autonomy.

9.1 SUGGESTED PHASING

1. Secure political commitment

Our proposal requires a clear strategic focus from Westminster on decentralisation. Implementation is likely to straddle more than one parliament and the pay-off will be long-term. To avoid the failed piecemeal approaches of the past, it is critical that all major political parties sign up to this strategic agenda.

2. Build institutional capacity

Together, our proposals imply an empowerment of the regions, with local government ultimately gaining more responsibility for fiscal policy (fiscal decentralisation), a fiduciary responsibility for community banks on behalf of their local communities (financial decentralisation), greater representation on corporate 'stakeholder' boards and a new capacity to issue 'community bonds' (capital decentralisation).

In addition, the creation of combined local authorities will lead to the ultimate empowerment of regions. Such authorities will be able to utilise greater fiscal power and enhanced by localised knowledge to promote growth policies in their regions. Moreover, these regional governments will be directly accountable to their constituents.

These responsibilities demand new institutional capabilities at the local government level that do not currently exist. To build this capacity, we suggest building human resource capacity, for example through secondments between central and local governments and open recruitment schemes at all levels of local government.

The targeted relocation of central government agencies and departments to regions where they can enhance existing clusters and preserve existing agglomerations will also widen institutional capacity and administrative expertise across the country.

3. Institutionalise stakeholder engagement and ensure accountability

Our proposals are underpinned by a philosophy that institutional decisions – whether by government, local government, financial institutions or businesses – should be responsive to the needs of relevant stakeholders. Effective engagement with stakeholders will improve policy design and implementation.

This requires continuous engagement between decision-makers and representative groups of stakeholders (eg to determine investment, social impact investment and community bond priorities as well as ensuring accountability).

We therefore suggest the creation of 'Stakeholder Oversight Committees' to provide channels for representing popular demand in the implementation and operation of this new decentralised model. As well as proposing projects, these bodies of grassroots activists, local organisations, non-profit and community figures can also provide a mechanism for accountability by scrutinising the disbursement of funds.

4. Legislate

Following consultations to ensure effective design, the knowledge-sharing tax relief, reforms to intellectual property protection (to remove barriers to reuse and reduce the validity length of patents) and facilitated knowledge-sharing marketplaces can be legislated for at this point. These legislations will encourage 'downstream' innovation and promote the commercial use of IP by other firms.

Similarly, following consultations to ensure effective design and the creation of 'Stakeholder Oversight Committees' that could potentially serve as an enabling mechanism (ie providing the 'representatives' to sit on corporate boards'), the reforms to the corporate governance code can be legislated for at this point. This legislation will mandate the principle of stakeholder rights to consultation and ensure that corporate and stakeholder incentives ultimately align.

To achieve the ambitious expansion of housing stock that is necessitated by our policy of regionalisation, legislation will direct more housing finance to local authorities. The first act will take council housing investment out of the main measure of government debt. This will be followed by an ending of and redistribution of funds from the right to buy policy towards new construction

and the 'mobility fund' scheme, and measures to encourage local authorities to utilise the relaxation of the housing borrowing cap.

5. Facilitate investment and financing

Our policy will be to increase the allocation of funds available to local government as a percentage of tax revenue over time, following evidence of regional convergence. This convergence will be achieved through a progressive investment profile from central government that corrects the capital deficit in marginalised regions and facilitates 'remote agglomeration'.

At the conclusion of the progressive investment profile, central government's investment allocation will switch from being based on informal criteria (ie one subject to political horse-trading) to one based on a strict per capita basis.

Regional investment will also be complemented by 'community banks', utilising the new capabilities of local government to maintain formal oversight over these community-owned institutions. Further funds will be leveraged from social impact investment and the 'Inclusive Economy Catalyst Fund'.

A high-level summary of our decentralised vision is presented in figure 9.1 below.

FIGURE 9.1: A DECENTRALISED ECONOMY



Source: Authors' analysis

10. CONCLUSION

This report has set out the structural nature of the UK economy's woes and has highlighted that a step change in the UK's growth prospects is only possible with a radical restructuring of the economy.

To achieve this, we propose a number of policies (summarised in the appendix) to decentralise the location of economic activity, political governance, knowledge, finance and capital. We have shown how such policies address the underlying problems of the UK's economy and emphasised how these solutions can revitalise economic growth. It is by refocusing decision-making at the local level (be this politically, geographically or in the corporate structure) that allows a radical new way to achieve higher economic growth which incorporate all stakeholders, not just the few.

This economic growth need not come at the expense of, or result in, greater inequality or environmental degradation. Instead, our proposals inherently reduce economic inequality – both across regions and income groups, as well as decouple economic growth from environmental damage.

The successful implementation of these policies requires a combination of refocused public investment, legislative change, and limited constitutional reform. The required increase in public expenditure will be temporary and bring positive return over the long term. The record low interest rates on long-term government debt represent a unique historic opportunity to invest in reshaping the UK's economic model towards a more inclusive and greener prosperity.

To succeed, it is vital that the proposed policies are implemented in tandem, rather than independently and in an ad hoc fashion. This will create a Big Push that overcomes the coordination failure which has prevented successful decentralisation in the past.

The result of this effort will be an environmentally sustainable country with a population that is prosperous, less economically divided and less disconnected from decisions over its future.

REFERENCES

- Abdulai A (2014) 'Rethinking spatial inequalities in development: the primacy of politics and power relations'. http://www.effective-states.org/wp-content/uploads/working_papers/final-pdfs/esid_wp_29_abdulai.pdf
- Alghais N, Pullar D and Charles-Edwards E (2018) 'Accounting for people's preferences in establishing new cities: A spatial model of population migration in Kuwait', *Plos One* 13(12): e0209065. <https://doi.org/10.1371/journal.pone.0209065>
- Atkins G, Wajzer C, Hogarth R, Davies N and Norris E (2017) 'What's wrong with infrastructure decision making?' Institute for Government
- Ayres S, Flinders M and Sandford M (2018) 'Territory, power and statecraft: understanding English devolution', *Regional Studies*, 53(6), 853-864
- Azfar O, Kahkonen S, Lanyi A, Meagher P and Rutherford D (1999) *Decentralization, governance and public services: The impact of institutional arrangements*, Centre for Institutional Reform and the Informal Sector, 1-37
- Baker A, Epstein G and Montecino J A (2018) *The UK's Finance Curse? Costs and Processes*, Sheffield Political Economy Research Institute
- Bank of England [BoE] (2017) 'Credit union annual statistics - 2017', dataset. <https://bit.ly/2LQV8wY> [Accessed on 28/12/2018]
- Barca F, McCann P and Rodríguez-Pose A (2012), 'The Case for Regional Development Intervention: Place-based versus Place-neutral approaches', *Journal of Regional Science*, 52: 134-152
- Barnett A, Batten S, Chiu A, Franklin J and Sebastiã-Barriel M (2014a) *The UK productivity puzzle*, Bank of England Quarterly Bulletin 2014 (Q2)
- Barnett A, Batten S, Chiu A, Franklin J and Sebastiã-Barriel M (2014b) *The productivity puzzle: a firm-level investigation into employment behaviour and resource allocation over the crisis*, Working Paper No 495, Bank of England
- Barton D (2011) 'Capitalism for the Long Term' *Harvard Business Review*, blog. <https://hbr.org/2011/03/capitalism-for-the-long-term> [Accessed on 10/04/2019]
- Batchler J (2004) 'Regional disparities in the United Kingdom' in Karl H and Rollet P (eds) (2004) *Employment and regional development policy: Market efficiency versus policy intervention*, *Studies in Spatial Development*, No 5
- BBA (2017) 'Bank Support for SMEs', news article. <https://bit.ly/2l82tX2> [Accessed on 30/12/2018]
- Becker S, Hebllich S and Sturm D (2018) *The Impact of Public Employment: Evidence from Bonn*, IZA Institute of Labour Economics, Discussion Paper Series
- Bessen J and Maskin E (2009) 'Sequential innovation, patents, and imitation', *The RAND Journal of Economics*, 40(4): 611-635
- Blöchliger H, Egert B and Fredriksen K B (2013) 'Fiscal Federalism and its Impact on Economic Activity, Public Investment and the Performance of Educational Systems', *OECD Economics Department Working Papers*. <https://bit.ly/2FJfNhE> [Accessed on 27/12/2018]
- Bloom N and Van Reenen J (2006) *Measuring and Explaining Management Practices Across Firms and Countries*
- Blundell R, Crawford C and Jin W (2014) *What can wages and employment tell us about the UK's productivity puzzle?*, IFS Working Paper W13/11
- Boldrin M and Levine D (2013) 'The Case Against Patents', *Journal of Economic Perspectives*, 27 (1): 3-22
- Brien P (2018) *Local government finances*, House of Commons Library, Briefing Paper, No 08431. <https://researchbriefings.parliament.uk/ResearchBriefing/Summary/CBP-8431>

- British Business Bank [BBB] (2017) 'Small Business Finance Markets Reports 2016/17'. <http://www.british-business-bank.co.uk/wp-content/uploads/2017/02/BBB-SBFM-REPORT2016-17-web.pdf>
- Bryan L (2004) *Mobilizing Minds: Creating Wealth From Talent in the 21st Century Organization*, McKinsey & Company. <https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/making-a-market-in-knowledge>
- Cecchetti S and Kharroubi E (2012) *Reassessing the impact of finance on growth*, BIS Working Papers, No 381
- Chadha J (2018) 'Regional, Industrial and Infrastructure Policies', Gresham College lecture. <https://bit.ly/2YKFlne> [Accessed on 18/12/2018]
- Chang, H J (2011) *23 Things They Don't Tell You About Capitalism*, Penguin Books
- Clarke S (2017a) 'Graduates and the young are spearheading a decline in regional mobility', blog post. <https://www.resolutionfoundation.org/media/blog/graduates-and-the-young-are-spearheading-a-decline-in-regional-mobility/> [Accessed on 14/04/19]
- Clarke S (2017b) *Get a Move On? The decline in regional job-to-job moves and its impact on productivity and pay*, Resolution Foundation
- Committee on Climate Change [CCC] (2019) *UK Housing: Fit for the Future*. <https://www.theccc.org.uk/wp-content/uploads/2019/02/UK-housing-Fit-for-the-future-CCC-2019.pdf>
- Cox E, Henderson G and Raikes L (2014) *Decentralisation decade: A plan for economic prosperity, public service transformation and democratic renewal in England*, IPPR North. <http://www.ippr.org/research/publications/decentralisation-decade>
- Department for Business, Energy & Industrial Strategy [BEIS] (2017) *Industrial Strategy: building a Britain fit for the future*, UK Government Policy Paper
- Department for Transport [DfT] (2019) 'Annual report and accounts 2017-18'. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/741685/dft-annual-report-18-tagged.pdf [Accessed 14/04/2019]
- De Bok M and Oort F (2011) 'Agglomeration economies, accessibility, and the spatial choice behavior of relocating firms', *The Journal of Transport and Land Use*
- De Jong M, Marston N and Roth E (2015) 'The eight essentials of innovation', McKinsey Quarterly, webpage. <https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/the-eight-essentials-of-innovation>
- Ebel RD and Yilmaz S (2002) *Concept of fiscal decentralization and worldwide overview*, World Bank. <https://bit.ly/2UCrsja>
- Enamorado T, Lopez-Calva L, Rodriguez-Castelan C and Winkler H (2016) 'Income Inequality and Violent Crime: Evidence from Mexico's Drug War', *Journal of Development Economics*, 120: 128-143
- Eurostat (2011) 'Business expenditure on R&D'. https://ec.europa.eu/eurostat/web/products-datasets/-/rd_e_berdcost
- Eurostat (2017a) 'GDP at regional level'. https://ec.europa.eu/eurostat/statistics-explained/index.php/GDP_at_regional_level
- Eurostat (2017b) 'Government budget appropriations or outlays on R&D'. https://ec.europa.eu/eurostat/web/products-datasets/-/gba_nabste
- Faggio G, Schluter T and Berge P (2018) *Interaction of Public and Private Employment: Evidence from a German Government Move*, SERC Discussion Paper 229
- Faguet J and Shami M (2008) *Fiscal policy and spatial inequality in Latin America and beyond*, LSE Research Online. <https://core.ac.uk/download/pdf/95752.pdf>
- Fauer L and Fuerst M E (2006) 'Does good corporate governance include employee representation? Evidence from German corporate boards', *Journal of Financial Economics*, 82(3): 673-710
- Feldman R (2008) 'Patents and Antitrust: Differing Shades of Meaning', *Virginia Journal of Law and Technology*, 13(2)
- Filippetti A and Sacchi A (2013) *Fiscal Decentralization and Economic Growth Reconsidered: The Role of the Institutional Setting*. <https://bit.ly/2U1QZ8R> [Accessed on 27/12/2018]

- Financial Conduct Authority [FCA] (2018) 'Loan-based ('peer-to-peer') and investment-based crowdfunding platforms: Feedback on our post-implementation review and proposed changes to the regulatory framework', Consultation Paper CP18/20
- Financial Times [FT] (2016) 'Active asset managers knocked by shift to passive strategies', 11 April 2016. <https://on.ft.com/2ePU8WA> [Accessed on 28/12/2018]
- Financial Times [FT] (2018) 'Broadband speed map reveals Britain's digital divide'. <https://ig.ft.com/gb-broadband-speed-map/> [Accessed on 11/01/2019]
- Frederiksen K (2013) *Decentralisation and Economic Growth - Part 3: Decentralisation, Infrastructure Investment and Educational Performance*, OECD Economics Department Working Papers. <https://bit.ly/2CQAyrc> [Accessed on 27/12/2018]
- Gamble A and Kelly G (1996) 'Stakeholder capitalism and one nation socialism', *Renewal*, 4(1) (1996), 23-32. <https://bit.ly/2Kev8fN> [Accessed on 27/12/2018]
- Garnsey E, Stam E and Heffernan P (2008) 'New Firm Growth: Exploring Processes and Paths' *Industry and Innovation*, 13(1)
- Giugliano F (2015) 'Weighing up four theories on the UK's productivity gap', *Financial Times*. <https://www.ft.com/content/2f7f42e8-e2b2-11e4-aa1d-00144feab7de> [Accessed on 14/03/2019]
- Glaeser E L (2010) 'Agglomeration Economics: Introduction', chapter 1, *Agglomeration Economics*, The University of Chicago Press
- Global Steering Group for Impact Investment (2018) *Building Impact Investment Wholesalers: Key Questions in Design of an Impact Investment Wholesaler*, Working Group Report
- Goldin I, Koutroumpis P, Lafond F, Rochowicz N and Winkler J (2018) *Why is productivity slowing down?*, Working Paper. https://www.oxfordmartin.ox.ac.uk/downloads/academic/201809_ProductivityParadox.pdf [Accessed 14/04/19]
- Goodridge P, Haskel J and Wallis G (2016) 'Accounting for the UK productivity puzzle: a decomposition and predictions', *Economica*, 85(339): 581-605
- Graham D (2007) 'Agglomeration economies and transport investment', Discussion Paper No 2007-11, OECD
- Grimm M and Klasen S (2007) *Findings and Challenges in the Measurement and Analysis of Pro-Poor Growth. Determinants of pro-Poor Growth: Analytical Issues and Findings from Country Cases*, New York: Palgrave Macmillan, 1-19
- Gwilym E A (2018) 'Twenty years on from devolution, the UK's fiscal and economic model is still broken', blog, *openDemocracy*. <https://bit.ly/2VIGwS9>
- Haldane A (2015) 'Who Owns a Company?', speech at University of Edinburgh Corporate Finance Conference, 22 May 2015. <https://bit.ly/1MTCTOR> [Accessed on 27/12/2018]
- Haldane A (2017) 'Productivity Puzzles', speech, London School of Economics, 20 March 2017
- Haldane A (2018) 'The UK's Productivity Problem: Hub No Spokes', Academy of Social Sciences, Annual Lecture, London, 28 June 2018
- Hall W and Pesenti J (2017) *Growing the Artificial Intelligence Industry in the UK*
- Hammond G and Tosun M (2009) *The Impact of Local Decentralization on Economic Growth: Evidence from U.S. Counties*, IZA DP No 4574
- Harford T (2018) 'Why big companies squander brilliant ideas', webpage. <https://bit.ly/2QBOjy3> [Accessed on 28/12/2018]
- Hargreaves I (2011) *Digital Opportunity: A Review of Intellectual Property and Growth*, HM Treasury
- Haroon A and Chaudhry M (2015) 'The Economic Impact of New Firms in Punjab', *Lahore Journal of Economics*
- Hatfield I (2017) 'Equitable equity: Increasing and diversifying finance for high-growth SMEs in the UK's regions', IPPR. <https://bit.ly/2HLDs82>
- Henderson R and Clark K (1990) 'Architectural Innovation: The Reconfiguration of Existing Product Technologies and the Failure of Established Firms', *Administrative Science Quarterly*, 35 (1): 9-30
- Hicks D and Hicks J (2014) 'Jealous of the Joneses: conspicuous consumption, inequality, and crime', *Oxford Economic Papers*, 66 (5): 1090-1120

- Hong S H (2013) 'Agglomeration and relocation: Manufacturing plant relocation in Korea', *Pap Reg Sci*, 93: 803-818
- Horowitz J, List J and McConnell K (2007). 'A Test of Diminishing Marginal Value', *Economica*, 74(296), new series: 650-663
- International Monetary Fund [IMF] (2017) *Bank Lending in the Knowledge Economy*, Working Paper No 17/234
- Innovate UK (2016) 'Innovation: get details about Innovate UK funding competitions', webpage. <https://www.gov.uk/guidance/innovation-get-details-about-innovate-uk-funding-competitions#collaborative-research-and-development> [Accessed on 09/04/2019]
- Innovate UK (2019) 'Connecting people to accelerate innovation' webpage. <https://ktn-uk.co.uk/>
- Institute for Public Policy Research [IPPR] (2017) 'Time for Change – A New Vision for the British Economy'. <https://www.ippr.org/research/publications/cej-time-for-change>
- Institute of Directors (2018) *Lifting the Long Tail: The productivity challenge through the eyes of small business leaders*, IoD Report October 2018
- Intellectual Property Office (2016) 'Valuing your intellectual property', webpage. <https://www.gov.uk/guidance/valuing-your-intellectual-property> [Accessed on 07/04/2019].
- Intellectual Property Office (2019) *Manual of Patent Practice*
- Jackson G (2005) 'Stakeholders under Pressure: Corporate Governance and Labour Management in Germany and Japan', *Corporate Governance: An International Review*, 13: 419-428
- Jackson G (2018) 'UK productivity gap narrows with new measure', *Financial Times*. <https://www.ft.com/content/017a99aa-fc72-11e8-ac00-57a2a826423e> [Accessed on 14/04/19].
- Jacobs M, Hatfield I, King L, Raikes L and Stirling A (2017) *Industrial Strategy: Steering structural change in the UK economy*, IPPR. <https://bit.ly/2USGwby> [Accessed on 30/12/2018]
- Jones R (2016) *Innovation, research and the UK's productivity crisis*, SPERI Paper No 28
- Kafentzis K, Mentzas G, Apostolou D and Georgolios P (2004) 'Knowledge marketplaces: strategic issues and business models', *Journal of Knowledge Management*, 8(1), 130-146
- Kelly C (2016) 'Companies Must Anchor Community Roots', *Forbes*, 27 June 2016. <https://www.forbes.com/sites/theyec/2016/06/27/purpose-driven-companies-must-anchor-community-roots/#788443de3644>
- Kifordu H A (2011) *Nigeria's Political Executive Elite: Paradoxes and Continuities, 1960-2007*, ISS PhD Theses
- Kim J (2011) 'Non-Market Effects on Agglomeration and Their Policy Responses—Can We Overcome the Mismatch?', OECD Regional Outlook 2011
- Kremer M and Williams H (2009) *Incentivizing innovation: Adding to the toolkit*
- Lawrence M (2017) *Corporate Governance Reform: Turning business towards long-term success*, IPPR Commission on Economic Justice. <https://www.ippr.org/research/publications/corporategovernancereform> [Accessed on 26/12/2018]
- LABC (2018) 'Are Britain's Houses Getting Smaller?', blog. <https://www.labcwarranty.co.uk/blog/are-britain-s-houses-getting-smaller-new-data/> [Accessed on 06/04/2019]
- Lerner A (1947) *The Economics of Control: Principles of Welfare Economics*, New York: The MacMillan Company
- Levin R, Klevorick A, Nelson R and Winter S (1987) 'Appropriating the returns from industrial research and development', *Brookings Papers on Economic Activity*, 1987(3), 783-831
- Local Government Information Unit [LGIU] (2019) 'Council Tax to rise while services slashed', press release. <https://www.lgiu.org.uk/news/council-tax-to-rise-while-services-slashed/>
- Lyons Review (2004) *Well Placed to Deliver? Shaping the Pattern of Government Service: Independent Review of Public Sector Relocation*, HM Treasury

- Malone T (2003) 'Is Empowerment Just a Fad? Control, Decision Making, and IT' in Malone T, Laubacher R and Scott Morton M (eds) (2003) *Inventing the Organizations of the 21st Century*, Cambridge MA and London: The MIT Press
- Martin B and Rowthorn R (2012) *Is the British economy supply constrained II? A renewed critique of productivity pessimism*, UK Innovation Research Centre
- McCall C, Epping M and Thompson D (2013) 'Compulsory licensing of patents', webpage. Available at: https://united-kingdom.taylorwessing.com/synapse/ti_compulsorylicensingpatents.html
- McGaughey E (2017) 'Good for Governance: Erzberger v TUI AG and the Codetermination Bargains', blog. <https://www.law.ox.ac.uk/business-law-blog/blog/2017/08/good-governance-erzberger-v-tui-ag-and-codetermination-bargains>
- McGowan M, Andrews D, Criscuolo C and Nicoletti G (2015) *The Future of Productivity*, OECD
- Ministry of Housing, Communities & Local Government [MHCLG] (2018) 'Help to Buy (Equity Loan scheme) Data to 30 June 2018'. <https://www.gov.uk/government/news/10-billion-new-funding-for-help-to-buy-equity-loan>
- Ministry of Housing, Communities & Local Government [MHCLG] (2019) 'Local Authority Revenue Expenditure and Financing: 2017-18 Final Outturn, England – Revised'. <https://bit.ly/2VLLduv>
- Müller R M, Spiliopoulou M, and Lenz H J (2002) 'Electronic marketplaces of knowledge: Characteristics and sharing of knowledge assets' in *Proceedings of the International Conference on Advances in Infrastructure for e-Business, e-Education and e-Medicine on the Internet*, 29
- Murphy K M, Shleifer A and Vishny R W (1989) 'Industrialization and the Big Push', *Journal of Political Economy*, 97(5): 1003-1026
- Myrdal G and Sitohang P (1957) *Economic theory and under-developed regions*, Gerald Duckworth & Co Ltd
- National Audit Office [NAO] (2013a) *Funding and structures for local economic growth*. <https://www.nao.org.uk/wp-content/uploads/2013/12/10285-001-Local-economic-growth.pdf>
- National Advisory Board on Impact Investing (2017) *The Rise of Impact: Five Steps Towards an Inclusive and Sustainable Economy*
- National Audit Office [NAO] (2013b) *HM Treasury: Planning for Economic Infrastructure*
- National Audit Office [NAO] (2013c) *Improving access to finance for small and medium-sized enterprises*. <https://www.nao.org.uk/wp-content/uploads/2013/10/10274-001-Executive-Summary.pdf>
- National Audit Office [NAO] (2016a) *Local Enterprise Partnerships*. <https://www.nao.org.uk/wp-content/uploads/2016/03/Local-Enterprise-Partnerships.pdf>
- National Audit Office [NAO] (2016b) *English devolution deals*. <https://www.nao.org.uk/wp-content/uploads/2016/04/English-devolution-deals.pdf>
- National Audit Office [NAO] (2018) *Financial sustainability of local authorities 2018*. <https://www.nao.org.uk/wp-content/uploads/2018/03/Financial-sustainability-of-local-authorities-2018.pdf>
- National Audit Office [NAO] (2019) *Investigation into devolved funding*. <https://bit.ly/2zjXuND> [Accessed on 31/05/2019]
- National Infrastructure Commission [NIC] (2018) *National Infrastructure Assessment*. https://www.nic.org.uk/wp-content/uploads/CCS001_CCS0618917350-001_NIC-NIA_Accessible.pdf
- Nonaka I and Takeuchi H (1995) *The Knowledge-Creating Company: How Japanese Companies Create the Dynamics of Innovation*, Oxford University Press; Polanyi, M, (1958) *Personal Knowledge: Towards a Post-Critical Philosophy*, University of Chicago Press
- HM Government (2016) *Northern Powerhouse Strategy*. <https://bit.ly/2S5FmxT> [Accessed on 22/03/2019]
- Office for National Statistics [ONS] (2014) 'Commuting and Personal Well-being'

- Office for National Statistics [ONS] (2016) 'Why are more young people living with their parents?', news article. <https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/families/articles/whyaremoreyoungpeoplelivingwiththeirparents/2016-02-22> [Accessed on 13/04/2019]
- Office for National Statistics [ONS] (2017a) 'Business enterprise research and development, UK: 2016'. <https://www.ons.gov.uk/economy/governmentpublicsectorandtaxes/researchanddevelopmentexpenditure/bulletins/businessenterpriseresearchanddevelopment/2016> [Accessed on 07/04/2019]
- Office for National Statistics [ONS] (2017b) 'Industry by region estimates of labour productivity: 2017', webpage. <https://www.ons.gov.uk/economy/economicoutputandproductivity/productivitymeasures/articles/introducingindustrybyregionlabourmetricsandproductivity/2017> [Accessed on 06/04/2019]
- Office for National Statistics [ONS] (2018a) 'Output per Worker: Whole Economy SA: Index 2016=100: UK', webpage. <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/labourproductivity/timeseries/a4ym/prdy> [Accessed 14/04/19]
- Office for National Statistics [ONS] (2018b) 'Examining regional gross value added growth in the UK: 1998 to 2016', webpage. <https://www.ons.gov.uk/economy/nationalaccounts/uksectoraccounts/compendium/economicreview/april2018/examiningregionalgrossvalueaddedgrowthintheuk1998to2016> [Accessed 14 April 2019]
- Office for National Statistics [ONS] (2018c) 'Household projections in England: 2016-based', webpage. <https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationprojections/bulletins/2016basedhouseholdprojectionsinengland/2016basedhouseholdprojectionsinengland> [Accessed on 02/04/2019]
- Office for National Statistics [ONS] (2018d) 'Quarterly sector accounts, UK: October to December 2017', webpage. <https://www.ons.gov.uk/economy/nationalaccounts/uksectoraccounts/bulletins/quarterlysectoraccounts/octobertodecember2017#households-saving-ratio-fell-to-a-record-low-of-49-in-2017> [Accessed on 13/04/2019]
- Office for National Statistics [ONS] (2019a) 'Labour market overview, UK: March 2019', webpage. <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/bulletins/uklabourmarket/march2019> [Accessed on 14/04/19]
- Office for National Statistics [ONS] (2019b) 'International comparisons of productivity', webpage. <https://www.ons.gov.uk/economy/economicoutputandproductivity/productivitymeasures/datasets/internationalcomparisonsofproductivityfirstestimates> [Accessed on 14/04/19]
- Office for National Statistics [ONS] (2019c) 'The probability of automation in England: 2011 and 2017', webpage. <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/articles/theprobabilityofautomationinengland/2011and2017> [Accessed on 14/04/19]
- Office for National Statistics [ONS] (2019d) 'Regional and subregional productivity in the UK: February 2019', webpage. <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/labourproductivity/articles/regionalandsubregionalproductivityintheuk/february2019> [Accessed on 06/04/2019]
- Office for National Statistics [ONS] (2019e) 'Family spending in the UK: April 2017 to March 2018', webpage. <https://www.ons.gov.uk/peoplepopulationandcommunity/personalandhouseholdfinances/expenditure/bulletins/familyspendingintheuk/financialyearending2018>
- Office for National Statistics [ONS] (2019f) 'Population estimates for the UK, England and Wales, Scotland and Northern Ireland: mid-2017', dataset. <https://bit.ly/2KX0xkd>
- Organisation for Economic Cooperation and Development [OECD] (2014) *OECD Regional Outlook 2014: Regions and Cities: Where Policies and People Meet*, OECD Publishing. <https://bit.ly/1riell> [Accessed on 05/01/2019]
- Organisation for Economic Cooperation and Development [OECD] (2015a) *Social Impact Investing. Building the evidence base*
- Organisation for Economic Cooperation and Development [OECD] (2015b) *Improving infrastructure in the United Kingdom*, Working papers No 1244. <https://bit.ly/2JRVA2q> [Accessed on 14/04/2019]

- Organisation for Economic Cooperation and Development [OECD] (2015c) *OECD Science, Technology and Industry Scoreboard 2015: Innovation for growth and society*, Paris: OECD Publishing
- Organisation for Economic Cooperation and Development [OECD] (2016) *United Kingdom Regional development*. <https://www.oecd.org/regional/regional-policy/profile-United-Kingdom.pdf>
- Organisation for Economic Cooperation and Development [OECD] (2017a), 'Regional Economy, OECD Regional Statistics', webmail. https://stats.oecd.org/index.aspx?datasetcode=region_econom
- Organisation for Economic Cooperation and Development [OECD] (2017b) 'OECD Economic Surveys United Kingdom'. https://read.oecd-ilibrary.org/economics/oecd-economic-surveys-united-kingdom-2017_eco_surveys-gbr-2017-en#page1
- Organisation for Economic Cooperation and Development [OECD] (2019a) 'Employment rate (indicator)', webpage. <https://data.oecd.org/emp/employment-rate.htm> [Accessed 14/04/19]
- Organisation for Economic Cooperation and Development [OECD] (2019b) *OECD Economic Outlook*
- Organisation for Economic Cooperation and Development [OECD] (2019c) 'Gross domestic spending on R&D', webpage. <https://data.oecd.org/rd/gross-domestic-spending-on-r-d.htm>
- Parker A and Serrano R (2000) *Promoting Good Governance through Social Funds and Decentralization*, World Bank discussion paper No 0022. <https://bit.ly/2DfKlqG>
- Parkinson M, Meegan R, Karecha J, Evans R, Jones G, Sotarauta M, Ruokolainen O, Tosics I, Gertheis A, Tonko A, Hegedus J, Illes I, Lefevre C and Hall P (2012) 'SGPTD Second Tier Cities and Territorial Development in Europe: Performance, Policies and Prospects', ESPON Applied Research
- Patient Capital Review Industry Panel (2017) 'Patient Capital Review: Industry Panel Response'. <https://bit.ly/2Ud4AQv> [Accessed on 04/01/2019]
- Perry J (2018) 'Lifting the HRA borrowing cap should come with accounting changes', news article. <https://www.publicfinance.co.uk/opinion/2018/10/lifting-hra-borrowing-cap-should-come-accounting-changes>
- Pessoa J and Van Reenen J (2013) *The UK Productivity and Jobs Puzzle: Does the Answer Lie in Labour Market Flexibility?* <http://cep.lse.ac.uk/pubs/download/special/cepsp31.pdf> [Accessed on 14/04/19]
- Porter M (2012) 'Creating Shared Value: The Path Forward', FSG Shared Value Leadership Summit Boston, 31 May 2012. https://www.hbs.edu/faculty/Publication%20Files/20120531%20-%20FSG%20Shared%20Value%20Leadership%20Summit%20-%20Final%20for%20Distribution_e0dce836-c2c9-4262-9f28-b32364414502.pdf
- Posner R (2012) 'Why There Are Too Many Patents in America', *The Atlantic*. <https://www.theatlantic.com/business/archive/2012/07/why-there-are-too-many-patents-in-america/259725/> [Accessed on 07/04/2019]
- Riley R, Rincon Aznar A and Samek L (2018) *Below the Aggregate: A Sectoral Account of the UK Productivity Puzzle*, ESCoE Discussion Paper 2018-06
- Rodríguez-Pose A and Bwire A (2004) 'The economic (in) efficiency of devolution', *Environment and Planning A*, 36(11), 1907-1928
- Rodríguez-Pose A and Gill N (2005) 'On the 'economic dividend of devolution'', *Regional Studies*, 39(4), 405-420
- Rosenstein-Rodan P N (1943) 'Problems of Industrialisation of Eastern and South-Eastern Europe', *The Economic Journal*, 53(210/211), 202-211
- Rosenthal and Strange (2003) 'Geography, Industrialisation, and Agglomeration', *Review of Economic and Statistics*, 85(2): 377-393
- Roser M (2019) 'Employment in Agriculture', OurWorldInData, webpage. <https://ourworldindata.org/employment-in-agriculture> [Accessed on 14/04/19]
- Rufrancos H, Power M, Pickett K and Wilkinson R (2013) 'Income Inequality and Crime: A Review and Explanation of the Time-series Evidence', *Social Crimonol*, 1: 103
- Ryan-Collins J (2018) *Why can't you afford a home?* Polity Press

- Sandhu M (2018) 'A familiar yet strange type of bank', *Financial Times*, 1 March 2018. <https://on.ft.com/2uDWYkv> [Accessed on 30/12/2018]
- Sandford M (2019) *Devolution to local government in England*
- Schneider P (2018) 'The UK's productivity puzzle is in the top tail of the distribution', webpage. <https://bankunderground.co.uk/2018/03/29/the-uks-productivity-puzzle-is-in-the-top-tail-of-the-distribution/> [Accessed on 14/04/19]
- Shankar R and Shah A (2003) 'Bridging the economic divide within countries: A scorecard on the performance of regional policies in reducing regional income disparities', *World development*, 31(8): 1421-1441
- Shapiro C (2000) 'Navigating the patent thicket: Cross licenses, patent pools, and standard setting', *Innovation policy and the economy*, 1: 119-150
- Shelter (2015) *Building the Homes we need*. http://www.shelter.org.uk/_data/assets/pdf_file/0019/802270/Building_the_homes_we_need_-_a_programme_for_the_2015_government.pdf
- Silverman A (1995) 'The Relationship Between Basic and Improvement Patents', *JOM*, 47(1), p50
- Social Impact Investment Taskforce (2014) *Policy Levers and Objectives*, *Social Impact Investment Taskforce*. <http://gsgii.org/reports/policy-levers-and-objectives/> [Accessed on 27/12/2018]
- Smith A, Fildes N, Blood D, Harlow M, Nevitt C and Rininsland A (2018) 'Broadband speed map reveals Britain's new digital divide', *Financial Times*. <https://bit.ly/2Nn3ny4>
- Smith I R (2010) *Relocation: transforming where and how government works*, Independent Review of Public Sector Relocation
- Stirling A and King L (2017) *Financing Investment: Reforming finance markets for the long-term*, IPPR. <https://www.ippr.org/publications/cej-financing-investment>
- Strauss D (2019) 'Will the UK's jobs boom survive Brexit?' *Financial Times*. <https://www.ft.com/content/ff6212c8-2553-11e9-b329-c7e6ceb5ffdf> [Accessed on 14/04/19]
- Swinney P and Breach A (2017) *The role of place in the UK's productivity puzzle*, Centre for Cities. <https://www.centreforcities.org/reader/role-place-uks-productivity-puzzle/> [Accessed on 14/03/19]
- Telegraph (2007) 'Civil servants resign rather than relocate'. <https://www.telegraph.co.uk/news/uknews/1553428/Civil-servants-resign-rather-than-relocate.html>
- Tenreyro S (2018) 'The fall in productivity growth: causes and implications', speech, Queen Mary University of London, 15 January 2018
- The Conference Board (2019) 'Total Economy Database', webpage. <https://www.conference-board.org/data/economydatabase/> [Accessed on 14/04/19]
- The Investment Association (2016) *Supporting UK Productivity with Long-Term Investment. The Investment Association's Productivity Plan*. <https://bit.ly/2AM71jL> [Accessed on 29/12/2018]
- The Ownership Effect Inquiry (2018) *The Ownership Dividend. The Economic Case for Employee Ownership*
- Tomorrow's Company (2016) *UK Business: What's Wrong? What's Next?* <https://bit.ly/2IcZyvU> [Accessed on 29/12/2018]
- Turner E and Rowe C (2015) *A race to the top, middle or bottom?* IPPR North. <https://www.ippr.org/publications/a-race-to-the-top-middle-or-bottom-the-consequences-of-decentralisation-in-germany>
- Turrell A, Speigner B, Djumalieva J, Copple D and Thurgood J (2018) *Using job vacancies to understand the effects of labour market mismatch on UK output and productivity*, Bank of England Staff Working Paper No 737
- UKGBC (2014) *A Housing Stock Fit For the Future: Making Home Energy Efficiency A National Infrastructure Priority*. <https://bit.ly/2GottA7>
- UK National Ecosystem Assessment (2011) *Synthesis of Key Findings*. http://www.wensumalliance.org.uk/publications/UKNEA_SynthesisReport.pdf

- UNCTAD (2019) 'GDP by type of expenditure, VA by kind of economic activity, total and shares, annual' webpage. <https://unctadstat.unctad.org/wds/TableViewer/tableView.aspx?ReportId=95> [Accessed on 14/04/19]
- Van der Linde C (2003) 'The Demography of Clusters: Findings from the Cluster Meta Study', in Bröcker J, Dohse D, Soltwedel R (eds) *Innovation clusters and interregional competition*, Springer: Berlin, 130-149
- Venables A (2007) *Evaluating Urban Transport Improvements: Cost-Benefit Analysis in the Presence of Agglomeration and Income Taxation*, Centre for Economic Performance, London School of Economics, Discussion Paper No 651
- Wakefield J (2018) 'Broadband speeds in UK slips down global league table', BBC news article. <https://bbc.in/2W1iS2O> [Accessed on 05/04/2019]
- Walker A, Glover J and Koehler I (2017) *Reviving localism Three challenges*, LGiU. <https://www.lgiu.org.uk/wp-content/uploads/2017/12/Reviving-localism-LGiU-publication.pdf>
- Webb T (2010) 'At least 10% of new homes fail energy efficiency tests', *Guardian*. <https://www.theguardian.com/business/2010/apr/13/homes-fail-energy-efficiency-standards> [Accessed on 04/04/2019]
- Williamson J, Driver C and Kenway P (eds) (2014) *Beyond shareholder value: The reasons and choices for corporate governance reform*. <https://www.tuc.org.uk/sites/default/files/BSV.pdf>
- Wilson S and Lilly A (2016) *Knowledge Hub: Case Study*, Institute for Government
- Wilson W and Barton C (2018) *Tackling the under-supply of housing in England*, House of Commons Library, Briefing Paper, Number 07671
- World Bank (2006) *Decentralized service delivery for the poor*. <https://openknowledge.worldbank.org/bitstream/handle/10986/8173/356920v10ENGL1MENT0FILE01Same0box1.pdf?sequence=1&isAllowed=y>
- World Bank (2017) 'Gross capital formation (% of GDP)', data. <https://data.worldbank.org/indicator/NE.GDI.TOTL.ZS?locations=OE-GB> [Accessed on 14/04/19]
- Zhang B, Ziegler T, Garvey K, Ridler S, Burton J and Yerolemou N (2017) *Entrenching Innovation: The 4th UK Alternative Finance Industry Report*. <https://bit.ly/2AL1nhN> [Accessed on 10/04/2019]
- Zhang B, Ziegler T, Mammadova L, Johanson D, Gray M and Yerolemou N (2018) *The 5th UK Alternative Finance Industry Report*. <https://bit.ly/2zVbc9Y> [Accessed on 10/04/2019]

APPENDIX: SUMMARY OF POLICY PROPOSALS

Policy proposal	
Chapter 4: Decentralisation of economic activity	
1	Transport infrastructure: Provide £43 billion in transport funding to regional cities in addition to funding already earmarked for the Northern Powerhouse Scheme.
2	Transport infrastructure: Identify and fund cross-regional transportation links to maximise city links, both nationally and internationally.
3	Internet infrastructure: Invest in the fibre broadband and 5G networks.
4	Doubling local authority responsibility of DfT capital budget to 26 per cent.
5	Devolution of infrastructure spending to local authorities and metro mayors (ultimately comined local authorities).
6	Mobility fund: A government-backed loan to assist households and businesses wishing to relocate but who are unable to due to lack of short-term finance.
7	Ending help to buy: Diverting these funds to finance mobility fund and the building of council houses.
8	Increasing environmental standards of new builds: Private new builds should be required to have an energy performance certificate of at least a C rating and greater funds devoted towards enforcement.
9	Revival of house-building: Remove council-housing borrowing from main measure of government debt; end right to buy; and facilitate local authority expansion of housing stock.
10	Relocation of government-bodies and institutions to regional clusters.
Chapter 5: Fiscal and political decentralisation	
11	Establishment of new layer of regional government including combined local authorities with elected representatives.
12	Transfer mandate of public investment spending from central to regional government.
13	Regional control over business rate policies and control of the caps on council tax increases and the retention of the revenue they generate in local areas.
14	Transfer of public expenditure decision-making from central to regional governments: increase the amount of public expenditure distributed by local government from 12 to 18 per cent over 5 years.
15	Redistribution of government funding to less well-off regions: Cancel the planned abolition of central grants and revenue support grants.
Chapter 6: The decentralisation of knowledge and business best practice	
16	Compulsory licensing of patents: Facilitated by the Intellectual Property Office to promote the efforts of new inventors.
17	A reduction in the length of Intellectual Property Rights: Overseen by the Intellectual Property Office.
18	Tax incentives to encourage the sharing of knowledge between firms

19	Creation of a regulated knowledge-sharing marketplace to match knowledge-rich firms with firms that have complementary resources
Chapter 7: Decentralisation of finance	
20	Establishment of community banks to engage more with local firms and build local credit-worthiness knowledge.
21	Making RBS a role model in terms of decentralised decision-making and greater autonomy at the branch level.
22	Increasing social impact investing (SII) through a dedicated SII minister; establishment of an 'Inclusive Economy Catalyst Fund'; and expansion of tax relief.
23	Creation of a certification scheme for SII endorsed schemes to encourage P2P lending.
24	Government-backed guarantees for certified SII loans.
Chapter 8: Decentralisation of capital	
25	Reform Corporate Governance Code to give stakeholders a greater representation in firm decision-making.
26	Issuance of community bonds.





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