Measures to promote a more even spread of industry across Britain are on the policy agenda. The maps and charts in a new report by Sandra Bernick, Richard Davies and Anna Valero provide a starting point, setting out the latest data on firm location, together with geographical measures of employment, productivity and innovation.
Britain is a place where people worry about the geographical spread of industry. While employment is at record levels, British workers are far less productive than their counterparts in countries such as France, Germany and the United States. Growth in real wages has been poor since the financial crisis; insecure working arrangements are on the rise; and there are significant disparities in economic activity and opportunity across the country.

Concerns that some regions are falling behind others – and that the location of firms helps to explain this – are longstanding, yet determination to adopt policies that address regional disparities has ebbed and flowed. There are signs that the 2017 Parliament could see an intensification of efforts to ‘drive growth across the country’. This is likely to be a key theme in the government’s new ‘Industrial Strategy’, set to be launched over the coming months.

Despite the rising interest in addressing Britain’s uneven economic performance, to date no one has published a comprehensive analysis setting out the latest facts on business geography. New CEP analysis begins to fill that gap, using data on firms to create a mapping of industry in Britain. Ten stylised facts stand out, many of which challenge the prevailing wisdom.

**FACT 1:**
**Three patterns of industry**
The location of business activity in Britain (measured using data on employment patterns) varies considerably by industry, and follows three broad patterns:  
- **Uniform:** Some industries are fairly evenly spread around the country, with a similar concentration of activity in most locations. These industries often provide products or services that must be sold locally: retail services, for example, include firms such as hairdressers and gyms. Outside large cities, agriculture is spread relatively evenly. More surprisingly, manufacturing is relatively evenly spread outside London.
- **Scattered:** In these industries, activity is concentrated in a number of locations, creating a scatter of strong dots across the country. This group includes firms operating in science and technology sectors and mining and quarrying (see Figure 1). The fact that finance is scattered across multiple hubs is a challenge to the belief that banking only occurs in the South East.
- **Single hub:** In these industries, there is one location where activity seems to be concentrated. The creative sectors (see Figure 2) and information and communications technology are examples: in both cases, activity is focused in London and the South East, although there are also pockets in cities such as Manchester and Edinburgh. Given the expectation that creative industries and ‘tech’ are potential growth industries, this finding will concern those seeking a more even spread of opportunity.

**FACT 2:**
**Firm size distribution**
Firm size matters for industrial performance: larger firms tend to invest more and have higher productivity. But industry is dominated by small firms with around 99% of firms being classed as ‘small’ (0-49 employees). So-called ‘non-employing’ businesses (firms where the owner-manager is the only worker) are the largest category, making up around three quarters of firms in all regions.

Our maps show that mid-sized firms (those with 50-249 employees) are relatively evenly spread. Large firms are very sparsely spread: currently, only 55% of local authorities have ten or more large firms. More encouragingly, maps showing the increase in mid-sized firms indicate that this growth is relatively evenly spread.

**FACT 3:**
**Business demography**
The rate at which firms start up and go bankrupt is relatively evenly spread, with maps showing that these ‘births’ and ‘deaths’ are equally likely across regions. This suggests that the ease with which a firm can be established and wound up are unlikely to explain regional productivity differences.

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**Figure 1:** Location quotient: ‘science and technology’

**Notes:** Location quotients compare a sector’s employment share in a local area with that sector’s share in national employment. A value greater than one suggests an area is relatively specialised in a sector.  
**Source:** Sectoral employment at local authority level from the 2015 Business Register and Employment Survey of the Office for National Statistics. ‘Science and technology’ and ‘creative’ sectors allocated at the four-digit level.

**Figure 2:** Location quotient: ‘creative’

Britain’s financial services industry is not nearly as London-centric as the creative industries.
FACT 4: The spread of productivity
The output per hour of a British worker varies considerably by location. At the bottom of the productivity scale is mid-Wales: the countryside around Brecon is an area with little industry and where agriculture is the main employer.

At the other end of the scale, there are three high-productivity hubs: the oil industry around Aberdeen; the area around Greater Manchester; and a band of productivity in the South. Contrary to popular belief, the high productivity of London does not spread into the South East but rather spreads west along the M4 towards commuter towns like Reading and Slough, which have their own high-productivity firms.

FACT 5: Leader and laggard sectors
The highest productivity sectors – real estate, mining and utilities – are small employers and so play little role in aggregate performance. Of the high employment sectors that drive national productivity, the leading sectors are finance, information and communications technology, construction and manufacturing. Professional, scientific and technical services vary within and across regions: this sector includes some very high-productivity firms together with much weaker ones.

But it is important to consider high employment sectors with weak productivity, such as retail and wholesale trade, administrative services, and accommodation and food services. Raising average productivity in these sectors could have a large aggregate effect due to their high employment shares.

FACT 6: Innovation in the regions
Data on research and development (R&D) expenditure and patents allow a comparison of innovation across regions. In absolute terms, London and the South East dominate, accounting for nearly a third of business spending on R&D. But in terms of R&D as a percentage of GDP, the East of England stands out (see Figure 3).

At a more disaggregated level, Britain’s most innovative NUTS2 regions (equivalent to grouped counties, unitary authorities or districts) are East Anglia, Cheshire and Hertfordshire. Respectively, these reflect the impact of Cambridge University, chemicals firms along the River Mersey and pharmaceuticals and life sciences firms located in and around Hertfordshire.

FACT 7: Unbalanced exporting
Britain has a sizeable current account shortfall at 3.4% of GDP (in the first quarter of 2017). Only 11% of firms export and those that do export are most likely to be based in London, the South East or the East of England. The North East has the lowest share of exporters at fewer than 6%.

A poor and unbalanced export performance has long been of concern, but Britain’s exit from the European Union will create new challenges in this area. It is estimated that all local authorities are likely to become worse off following Brexit, but that the largest impacts are expected to be in cities that specialise in finance and business services.

Understanding the local impacts of Brexit through changes to trade – together with immigration, foreign direct investment and innovation – will be crucial for policy-makers developing an industrial strategy with region-specific elements.

FACT 8: Britain’s coastal malaise
A number of maps outline concerns about the economic performance of Britain’s coastal towns. Maps of survival rates show that firms located near the coast are more likely to go out of business than those further inland.

These areas also specialise in accommodation and food services, which tend to be low productivity industries with a high churn of businesses. Other research shows that skills are particularly weak in these areas, perhaps reflecting the demands of the local labour market.

Britain’s productivity engine is a band stretching west from the capital along the M4 corridor towards Bristol.

The East of England stands out in terms of the intensity of local investment in R&D
FACT 9: The power of a single firm
Some of the patterns in the regional data indicate local dominance by single firms. For example, the high productivity in north Lancashire, Derby and Brentwood is influenced by the major plants of BAE Systems, Rolls Royce and Ford, respectively. Further examples are Tata Steel in Port Talbot and Airbus in Broughton (Flintshire), both in Wales. The same can also be true for service sector firms, for example, Sky in parts of Scotland. The local impact of losing or gaining a large firm can be large.

FACT 10: The German benchmark
It is well known that Britain’s aggregate productivity is far behind that of its key comparator countries. We compare the economic performance of British regions with those in Germany. The resulting maps are concerning, showing that Britain’s best performing regions (with the exception of Central London) are far behind the German average (see Figure 4).

Germany stands out as a multi-hub country, with around ten identifiable high-productivity areas: by contrast, in Britain, the South East dominates. While Germany also faces regional challenges, with longstanding poor performance in East Germany, these poor performing regions are catching up. In Britain, however, similarly laggard regions appear to be falling further behind.

Next steps
Britain has good quality firm-level data, and it is crucial that this is put to best use in guiding policy. The LSE Growth Commission made a series of recommendations to strengthen the institutions governing industrial strategy.

A key component here would be the publication of an annual Industrial Strategy Report on the state of British business akin to other regular publications (for example, the Bank of England’s Inflation Report). Our work provides some of the types of analysis that could be usefully included and built on in such a report.

While our analysis provides a snapshot of the current state of play, it remains unclear what is the optimal distribution of industry, and therefore what the ultimate goal of regional policy should be. Industrial policy has to proceed cautiously, in full knowledge of facts on the ground and ensuring that government resources are used effectively.

Broadly, the evidence suggests that area-based initiatives can lead to displacement rather than aggregate gains, though it is possible to design policies that deal with these issues. Moreover, there are tensions between ‘jam-spreading’ (spreading resources across locations) and the ability to build up successful hubs that exploit network effects.

It is increasingly recognised that greater local control is important: more space for local authorities to experiment with different types of policy. This, together with improved data collection and evaluation, should increase the chances that policies can deliver both improved aggregate performance and a more balanced economy.

This article summarises ‘Industry in Britain – An Atlas’ by Sandra Bernick, Richard Davies and, Anna Valero CEP Special Paper No. 34 (http://cep.lse.ac.uk/pubs/download/special/cepsp34.pdf).

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Figure 4: Productivity per hour in Britain versus the German average (=100)

In addition to longstanding concerns about the North-South divide, there are emerging disparities between coastal and inland areas.

Notes: GVA per hour at NUTS3 level in 2014, with Germany’s overall productivity set to 100 (index).

Source: Data for Britain from the Office for National Statistics Regional and Subregional Productivity release (January 2017), German data from the federal states’ national accounts.