

## **Coping with deindustrialisation in the global North *and* South**

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### **Abstract**

Deindustrialisation is central to the renewed concern with the social and spatial inequalities and political-economic discontent evident in so-called 'left behind' places in the global North since the 2008 global financial crisis. Yet coping with deindustrialisation and its impacts is now a more internationalised concern, extending geographically across the global South. Urban and regional studies remain fragmented and compartmentalised in conceptual, theoretical and geographical terms, constraining attempts to develop and deepen understanding, explanation and policy formulation for deindustrialisation internationally. Seeking to foster engagement, dialogue and mutual learning, this paper outlines a geographical political economy approach to economic evolution and focus on geographically differentiated pathways and institutions, suggests areas for cross-national policy learning and identifies future research directions. While rooted in and coming from a particular geographical and temporal setting, geographical political economy makes a substantive contribution to explaining and responding to deindustrialisation in the global North *and* South.

### **Keywords**

Cities, regions, de-industrialisation, geographical political economy, global North, global South

## 1. Introduction

Deindustrialisation has been at the heart of a renewed concern with social and spatial inequalities following the global financial crisis from 2008. Interest has grown in so-called ‘left behind’ places, acutely affected by globalisation, economic and technological change (Henderson *et al.* 2018). Such places have become hotspots of an emergent geography of discontent and support for populist and nationalist politics in the global North including the *Rassemblement National* (National Rally) and *Gilets Jaunes* (Yellow Vests) movement in France, *Alternative für Deutschland* (Alternative for Germany), *Lega* (the League) in Italy, the referendum vote to leave the European Union in the UK (Brexit) and the election of President Trump in the US (Dijkstra *et al.* 2018). Such geographical differentiation and political-economic disturbance have manifest in different ways and acquired labels such as *La France périphérique* (‘peripheral France’), *abgehängte Regionen* (‘suspended regions’) in Germany, *Aree Interne* (‘inner areas’) in Italy, ‘Brexitland’ in the UK and ‘Trumpland’ in the US. Formerly industrialised cities and regions specialised in manufacturing sectors have featured prominently in this tumult. People and places suffering from structural economic change have registered disaffection with the political-economic system across the global North: from engineers in Pennsylvania (US) to steelworkers in Lorraine (France) and car manufacturers in Sunderland (UK). Deindustrialisation is central to this geographical and political-economic “revolt of the rustbelt” (McQuarrie 2017: S120) and “revenge of the places that don’t matter” (Rodríguez-Pose 2018: 189).

Coping with such deindustrialisation and its political fall-out has traditionally been a concern for cities and regions with longer histories of industrialisation in Europe and North America in the global North (Martin and Rowthorn 1986). Events since the 2008 crisis have re-asserted their

concerns and interests in national political economies and meant their stories have been told in the international, Anglophone media. But when viewed from a global perspective, deindustrialisation is now a more internationalised phenomenon: extending to relatively later industrialisers including Brazil, China and South Korea in Latin America and East Asia (de Paula 2016, Kim and Lee 2014), and, through the phenomenon of ‘premature de-industrialisation’, now reaching more recently industrialising countries in the global South in the rest of Asia, Africa and Central and Latin America (Rodrik 2015, Schindler 2018, Sumner 2018). Cities and regions across the world are now engaged in the difficult task of better understanding, explaining and dealing with such structural economic evolution. Politicians, policy-makers and researchers focused on affected places are torn between the seemingly irreversible structural shifts in economies suggested by Peter Hall’s (1985) interpretation that “tomorrow’s industries are not going to be born in yesterday’s regions” and Paul Krugman’s (2003: 1) more optimistic identification of the potential for “second winds for industrial regions”. While unfolding in different national political economies and variegations of capitalism internationally, close relationships exist between deindustrialisation and deepening social and spatial inequalities and risk fostering wider discontent and political disruption.

Taking a more international view on deindustrialisation involves acknowledging and trying to move beyond recognition of the fragmentation and compartmentalisation evident between global North and South studies in some parts of urban and regional studies research (Horner 2019, Murphy 2008, Pollard *et al.* 2009, Poon and Yeung 2009). Across this work, concepts and theories remain spatially-bounded, investigations of similar, even identical, issues proceeds on parallel tracks with limited interaction and certain concerns and/or parts of the world are demarcated by specific (sub)disciplines, institutions and publications (Pike *et al.* 2014). Such disconnections have constrained understanding, limited explanation and hampered policy formulation in addressing territorial development challenges in an increasingly inter-dependent global context. While

important contributions have been made to remedy this situation (see, *inter alia*, De Paula and Dymski 2005, Horner and Hulme 2017, Jones 2000, Mohan 2011, Nel and Rogerson 2016, Scott and Garofoli 2007), more of these substantive steps are needed towards stronger connection and deeper engagement, dialogue and mutual learning between (sub)disciplines and researchers situated in particular places and with specific geographical interests and working in multiple languages (Hassink *et al.* 2019).

Contributing to this wider inter-disciplinary and international agenda, first, this paper outlines a geographical political economy (GPE) approach to understanding, theorising and researching economic evolution in places with a focus on de-industrialisation. Informed by this framework and stimulated by recent research in the global North, second, it identifies differentiated pathways and geographies and institutions as key issues worthy of attention internationally. Last, it draws some conclusions, suggests areas to explore cross-national policy learning and identifies potential research directions for future international research on de-industrialisation. The argument is that, while rooted in and coming from a particular geographical and temporal context, this GPE and its research methods can meaningfully contribute to conceptualising, theorising and comparing explanations of deindustrialisation and its effects and responses in geographical settings in the global North *and* South.

## **2. A geographical political economy of economic evolution**

Stimulated by critiques of (neo-)Marxian versions of radical geography from the 1970s and 1980s that questioned its economism, reductionism and structuralism (Goodwin 2004), GPE has since diversified into a more broadly-based “pantheon” shaped by diverse and multiple theoretical currents including feminism, institutionalism and post-colonialism (Sheppard 2011: 320). Rather

than being eclipsed by such perspectives or attempting to draw sealed boundaries between its different variants (Jones 2016), GPE is pluralistic and includes approaches rooted in multiple strands of wider thought (Hassink *et al.* 2014). It is, however, clearly distinguishable and holds in common a conceptualisation of capitalism as a particular social, economic and political formation and its geographies as the outcome of contradictory and contested economic, social, political, cultural and biophysical relations and processes (Castree 2010). For this political economy, geography is interpreted as causal and constitutive: space and place are integral to its fundamental relations and processes rather than simply outcomes, and history is central through its legacies and path dependencies that inescapably shape unfolding evolutionary pathways. Refuting the separation of the economic from other influences affords GPE a comprehensive, holistic and integrated perspective and reach (Perrons 2004). This understanding enables GPE to theorise longstanding questions of geographically uneven development through conceptions of social and spatial relations, value creation and capture, power and state formation *as well as* 'new' political economic concerns including discourse and narrative, difference and identity, the embedding and institutionalisation of economic actors and agency, and social and cultural construction (see, for example, Bok 2018, Jones 2008, MacKinnon *et al.* 2009, Moulaert *et al.* 2016, Perrons 2012, Sheppard 2018). In combining these emergent and longstanding concerns, GPE is established as an influential and pluralistic perspective in urban and regional studies (Jones 2015, Sheppard 2018). It encompasses research on cultural political economies (Jessop and Oosterlynck 2008, Jones 2008), global production networks (Coe and Yeung 2015), probabilistic analysis (Plummer and Dezzani 2012), environmental geography (Castree 2010) and economic evolution (MacKinnon *et al.* 2009). Connecting with long-established work on social and spatial inequalities and poverty in the global South, GPE work continues to engage with the contemporary experiences of urban and regional change in countries including China, India and Indonesia amongst others (see, for example, Chan 2018, Corbridge 2018, Sheppard 2016).

GPE provides an appropriate framework to explain the common predicaments and variegated circumstances of places in the global North and South experiencing the uneven economic, social, spatial, political and institutional changes generated by deindustrialisation. Central to the GPE of economic evolution and deindustrialisation is an actor-centred emphasis predicated upon the mutually constitutive and recursive relationships between agents and structures (Harvey 2006). This orientation is sensitive to individual and institutional agency within wider structures and the practices and work of actors actually doing the economic evolution and structural change. It raises questions of who, where, when and why are people doing the de-industrialising and attempting to shift city and regional economies in particular directions? A broader view is taken of actors to incorporate firms as well as other private, public and civic institutions, collective agency and the state (Mackinnon *et al.* 2009). In addition, within each of these categories of agents the social relations, multiple interests, dynamics and politics are emphasised; for example, between central and local government and their constituent organisations and structures, political parties, social and political groupings. Taking this view of agency counters deterministic accounts that read-off behaviours too closely from broad categories of actor types. This GPE is process-based too in conceiving of how ‘deindustrialisation-in-motion’ unfolds in space and over time as an incomplete, messy and contradictory process constructed and contested by the multiple actors involved. Such a framework parallels Moulaert *et al.*’s (2016) emphasis upon agency, structure, institutions and discourse. Overall, GPE attempts to engage ‘big’ processes “with collateral effects that are both deep seated and far reaching, making sense of its workings on the ground must involve granular and specific forms of analysis – close to actors, agents, and actions, but at the same time attentive to structural positions, systemic rationalities, and recurrent patterns” (Peck and Whiteside 2016: 262). Heightened sensitivity to agency leavens overly abstract theorisation and nuances more strongly structural and functional explanations that read across too directly from the operation of the political economy of global capitalism to its concrete manifestations in cities and regions.

Researching the GPE of economic evolution and deindustrialisation draws upon methodological concerns and advances, especially in economic geography (Barnes *et al.* 2007, Pike *et al.* 2016). Specifically, there is a need to build upon macro-level studies of deindustrialisation. These are often quantitative, national level focused and cover relatively few countries internationally (see, for example, Rowthorn and Coutts 2013, Škuflić and Družić 2016). While important in providing the wider picture, such studies only set the scene rather than connect with the sub-national dimensions of deindustrialisation at the local, regional and urban scales. There is a further and related need to develop work from micro-level case studies of particular places, industries and firms again mostly drawing from a relatively limited range of national settings (see, for example, Frederick 2017, Goldstein 2017, Weller and O'Neill 2014). Such studies have provided rich, largely qualitative, and detailed analyses of deindustrialisation on the ground in certain countries but lack breadth and wider comparability and representativeness. What is missing are multi-level approaches able to link across these different scales and networks in national settings and utilise mixed methods to combine quantitative and qualitative studies as a means of underpinning more comparative and international work. This is an important gap given the geographical extension of deindustrialisation across the global North *and* South. While deindustrialisation is differentiated in its manifestations in time and space in a now wider and more international range of spatial and temporal settings it retains generalisable characteristics that enable its identification and comparison across cases in different countries. Research strategies, designs and methodologies are needed to capture, connect and inter-relate these domains. Ways of grasping the quantitative extent *and* qualitative nature of the economic evolution of deindustrialisation in cities and regions across the world are required.

A multi-level GPE approach enables the investigation of the agency of multiple actors in structures operating at different scales and in wider networks (Pike *et al.* 2016, 2019). It seeks to zoom in and out from micro to meso to macro and back again to compare and explain the specificity and particularity of empirical cases. Clearer understandings and richer explanations are the goals. This

multi-level GPE comprises a range of potential research designs and techniques including: periodisation; institutional and policy mapping; and, incorporated *cross*-case and *within*-case comparison through process tracing and sequence analysis (Evenhuis *et al.* 2019). Periodisation tracks and characterises the evolutionary paths of industries and places at different geographical scales, typically using economic indicators such as output and employment. Distinctive episodes of change can be identified as well as turning or inflection points between episodes that can then be subject to further investigation. Informed by the periodisation, institutional and policy mapping over time reveals the different organisations and their policy mixes involved in economic evolution at and between different spatial levels including national, regional and local. Utilising McMichael's (1990: 385) "incorporated comparison", cross- and within-case comparisons delve into the particular situations of specific cases *and* situate cases within the wider and encompassing configurations of which they are part. Constructing causal explanations is based upon the mixed methods of "narrative and numbers" to piece together the quantitative and qualitative data from the periodisation, institutional and policy mapping and comparative case analysis (Froud *et al.* 2006: 122). Process tracing identifies and follows steps in chains of events and reveals potential causal relations and mechanisms connecting factors to outcomes (Beach and Pedersen 2013). Sequence analysis then addresses these chains of events to understand, evidence and explain the causal relations and outcomes involved (Blanchard *et al.* 2014). Together, this multi-level GPE approach and its related methodologies provide a means critically to engage with economic evolution and deindustrialisation in the global North and South.

### **3. Deindustrialisation in economic evolution**

As a distinctive episode in economic evolution and structural change, deindustrialisation is defined as the reduction of manufacturing in the economy (Rowthorn and Coutts 2013). A key distinction

is between *absolute* declines and *relative* falls in the share of manufacturing in total output and employment. This difference is important because in a growing economy manufacturing may be declining in relative terms but maintaining its absolute size. Trade competitiveness provides another measure of deindustrialisation indicated by the international market share of a country's manufacturing exports. Deindustrialisation generates substantial economic and social costs for people and places, including those derived from unemployment, labour mobility and longer-distance commuting, community fragmentation and risks from self-employment or new business start-ups given limited alternative job opportunities (Cowell 2015).

Focused upon and derived from explaining the deindustrialisation experiences of cities and regions in the global North, there are several traditional theories of explanation. First, and still highly influential in conventional accounts, is the maturity thesis based upon the Fisher-Clark theory of the 'natural' evolution of economies through distinct stages from primary (agriculture, mining) to secondary (manufacturing) to tertiary (services) and then quaternary (knowledge-based) (Pike 2019). Second, trade specialisation interprets cities and regions as specialising in economic activities in which they have a comparative advantage over other places because of their assets and capabilities. Manufacturing specialisation underpinned early industrialisation in western Europe and North America from the late 19<sup>th</sup> century but has since moved eastwards since the 1970s as part of the new international division of labour and later globalisation of production (Dicken 2015). Relatively labour intensive and cost-sensitive parts of manufacturing were relocated through outsourcing or 'offshoring' and foreign direct investment. Emergent 'newly industrialising countries' (NICs) pursuing export-led growth strategies – including Hong Kong, Singapore, South Korea and Taiwan – initially specialised in such activities underpinned by relatively lower wages compared to existing producers in higher wage economies in the global North. This geographical shift in trade specialisation generated deindustrialisation as manufacturing contracted in its former centres in cities and regions in western Europe and North America.

Competitive failure, third, explains deindustrialisation in terms of producers in cities and regions becoming uncompetitive in international markets over time compared to producers located elsewhere. The internationalisation of production and emergence of new manufacturing centres increased competition in domestic and export markets in historically industrialised countries. Initial factor cost advantages were compounded by upgrading amongst emergent economy manufacturers and increased productivity, innovation and connection to services especially intangibles such as branding. Last, deindustrialisation is explained by the active disinvestment of firms and, for nationalised industries, states. The emergence of firm strategies based upon global value chains or production networks have extended and integrated geographies of manufacturing activities internationally (Tregenna 2015). Existing locations have sometimes been ‘hollowed-out’, downgrading their functions and reducing their employment and output. Lower value-added assembly activities have replaced higher value-added manufacturing, often putting together imported components and sub-assemblies and acting to guarantee market access for their producers through their location within countries and wider trade blocs. Echoing earlier work on ‘conglomeratization’ (Bluestone and Harrison 1982), the financialisation of the economy has pitted manufacturing into a competition for investment from investors within firms and internationalised capital markets where it often struggles to generate relatively higher returns because of its higher capital intensity and weaker profitability in comparison to especially higher value-added services. An uneven flight from manufacturing investment is evident internationally, leaving the sector suffering from under-investment in some cities and regions and further fuelling their de-industrialisation. As part of their political-economic strategies since the late 1970s, states have withdrawn from manufacturing directly through wholesale privatisation or reduced ownership shares or indirectly through reduction of public subsidies and other support.

Following the 2008 crisis and Great Recession, deindustrialisation has extended further geographically to become an even more international, even global, phenomenon. There are even concerns expressed about the emergence of a ‘world of rustbelts’ (Schindler 2018). Cities and regions industrialised in relatively later waves in the emergent economies in China, India, Africa and Latin America are experiencing de-industrialisation. Shaped by maturity thesis thinking but disturbing its linear and programmatic explanatory rationale, this manifestation of economic evolution is a *premature* deindustrialisation (Rodrik 2015). It is deemed premature because it is occurring in countries where manufacturing is declining at much lower levels of per capita income and lower shares of manufacturing in total output or employment than occurred in the historically industrialised countries in the global North. Those countries experiencing premature deindustrialisation appear to have reached a peak level of manufacturing in employment and output shares much earlier than other countries that industrialised before them. Explaining using the maturity thesis based upon the experiences of historically industrialised countries in the global North, deindustrialisation is seen as happening in such places before their *expected* evolution and accompanying productivity growth in services and/or wage increases and without providing the employment opportunities to draw workers out of lower productivity and low wage agriculture and into relatively higher productivity and higher wage manufacturing. Premature deindustrialisation stalls development because it removes the route to faster economic growth and catch-up with higher income countries that manufacturing was historically able to provide through its capacity for high rates of productivity growth (Andreoni and Tregenna 2018). Following the same logic, without a transition to manufacturing moves towards a service-based economy and higher value-added and productivity activities are closed off.

The phenomenon of premature deindustrialisation in the global South is not readily interpreted by existing theories given their roots in the experiences of cities and regions in the global North. Emergent explanations combine a mix of longstanding and common factors as well as

geographically and temporally particular elements: the liberalisation of markets and international trade including as part of the structural adjustment policies of international financial institutions such as the International Monetary Fund (IMF) and the World Bank; increased competition in domestic and export markets; growth in economic specialisation in primary commodities and resource-based manufactures; the entry of China into global manufacturing; automation and technological change; shifts in supply chains and logistics networks; and, the relocation of manufacturing jobs to the new geographical vanguard of relatively lower wage economies such as Cambodia, Laos and Vietnam (Yang 2016). Transnational firms with headquarters in countries in the global North reorganised and geographically extended their production networks from the 1990s, ‘offshoring’ substantial manufacturing activities to emergent economies in the global South. This relocation was, however, highly geographically selective. It focused upon cities and regions in a relatively small number of countries, especially in east Asia, and was motivated by the ongoing search for lower wage costs for labour intensive activities and looser regulatory regimes for employment and environmental standards. As an evolution markedly different from previous episodes of change, these new global value chains combined high-tech production techniques and know-how from the advanced economies *with* low wage labour in specific emerging economies (Schindler 2018). Such geographical shifts have spread manufacturing jobs across more countries but they remain relatively small scale and specialised in particular parts of wider value chains. Echoing the ‘middle income country’ trap (Andreoni and Tregenna 2018), each country has therefore found it harder to sustain manufacturing activities and jobs amidst increasing international competition. Cities and regions in these countries in the global South experiencing premature deindustrialisation show how their economic evolution occurs at different levels and rates. As manufacturing growth slows and employment declines, such places are confronted with challenging questions about structural change and the economic basis of their future development paths. In the light of this internationalisation of deindustrialisation and

informed by the GPE approach, two key issues of pathways and geographies and the role of institutions in economic evolution are worthy of further attention.

### *3.1 National, city and regional pathways and geographies of deindustrialisation*

Taking an international perspective and GPE approach, deindustrialisation is marked by variegated national, urban and regional pathways and its geographical extension as a phenomenon since the 1990s. While maintaining recognisable characteristics, deindustrialisation unfolds differently across countries, cities and regions shaped by their economic structures, histories and institutional legacies of industrialisation, urbanisation, capital, labour, states, culture and politics. The relative contributions of manufacturing in total national output have reduced to different extents and at varying rates in countries in the global North including the US, Japan, Germany and the UK between 1970 and 2015 (Table 1). In contrast, countries in the global South have maintained – including India, Mexico and Indonesia – or increased – including South Korea and Taiwan – the relative contributions of manufacturing in their economies. China stands out because of its size and episode of rapid economic growth, industrialisation and urbanisation since the late 1970s, although its share of manufacturing in total output fell between 2010 and 2015. In terms of shares of manufacturing employment, most countries have experienced declines while the Czech Republic and Taiwan broadly maintained their shares and Brazil registered an increase (Figure 1). Job reductions reflect productivity increases and the structural changes of employment shifts into services.

Considering the sub-national scale of economic evolution, pathways of deindustrialisation have been geographically and temporally differentiated in recent decades. From the 1960s through the 1970s and 1980s, the western European centres of industrialisation from the late 19<sup>th</sup> century were

acutely affected, resulting in marked regional concentrations of deindustrialisation: the north of England, Scotland's central belt and south Wales in the UK; Lorraine and Nord Pas de Calais in France; the Ruhrgebiet and Saarland in Germany; Wallonia in Belgium; Jutland in Denmark; Limburg in the Netherlands; Setúbal in Portugal; and, País Vasco in Spain. The late 1980s and 1990s included the geographical extension of deindustrialisation to eastern Europe following the 'Velvet Revolution' and transitions from centrally planned to market economies. Industrial employment declined sharply in Moldova, Armenia, Latvia, Romania, Bulgaria and Ukraine especially in its heartlands of Donetsk and Dnepropetrovsk, while Belarus, Czech Republic, Poland, Slovenia, the Slovak Republic, and Hungary were less affected following acquisitions and foreign direct investment in manufacturing from firms based in western Europe and beyond (Table 2).

The geographical extension of deindustrialisation beyond its heartlands in Europe and North America began in the newly industrialising countries from the late 1970s and early 1980s. Japan suffered from the 1980s, especially the industrial belts of Kanagawa, Osaka, Tokyo, and Saitama alongside the NICs of South Korea, especially Busan and Ulsan, older manufacturing centres in Taiwan within and beyond Taipei and Hong Kong and Heilongjiang, Jilin, and Liaoning in China (Hassink *et al.* 2018). Deindustrialisation pathways have been marked by relocations of labour-intensive production to new and emergent manufacturing centres in China and India as well as more recently to Cambodia, Indonesia, Laos, Thailand and Vietnam (Yang 2016). Elsewhere in the 1980s, cities and regions in Central and Latin America experienced deindustrialisation to differing degrees including Buenos Aires in Argentina and Santo André, São Bernardo do Campo, and São Caetano do Sul in the ABC region in Brazil (Rodríguez-Pose and Tomaney 1999).

Since the 1990s, the geographies and pathways of deindustrialisation in an increasingly globalised and inter-connected economy have been marked by a speeded-up 'industrialisation–deindustrialisation' cycle generated through heightened inter-dependency based on new

technologies, increased competition and spatially extended global production networks (Coe and Yeung 2015). Such differentiated experiences of deindustrialisation across countries, cities and regions in the global North *and* South question maturity thesis explanations. Taking a GPE perspective, evidence does not support an inevitable, linear and singular route into manufacturing from agriculture, a sustained period of manufacturing specialisation, and paths out of manufacturing into service and/or knowledge-intensive economies. Instead, variegated and often punctuated trajectories of evolutionary change are apparent. Focusing upon these pathways allows a finer appreciation of the scale and rate of de-industrialisation: how much and how fast have manufacturing output, employment and/or exports fallen? Magnitude, speed and rhythm strongly shape de-industrialisation's impacts and the potential for adaptation in cities and regions. Large scale, rapid and repeated shocks, for example through industrial closures and their knock-on negative multipliers in labour and supply markets, generate substantial ramifications and challenges for policy responses and configure particular kinds of approaches.

Considering the particular experience of the UK between 1970 and 2015 in this GPE framework, distinct regional pathways are evident as the regions have different levels and rates of contraction over time (Figure 2). Digging deeper into the geographies would reveal an urban-rural shift as deindustrialisation was concentrated in cities including London, Birmingham, Leeds, Liverpool, Manchester, Newcastle and Sheffield, while re-industrialisation in new lighter consumer goods manufacturing was located in smaller cities, new towns and rural areas in the 'Golden Crescent' stretching from East Anglia around Cambridge to the 'M4 Corridor' west of London (Boddy *et al.* 1986). Similarly, in cities and regions in the US, the 1970s and 1980s shift from the 'snowbelt' – also known as the 'frostbelt' or 'rustbelt' – of the former industrial heartlands of the north and east – including Michigan, Ohio and Pennsylvania – to the 'sunbelt' of the southern states – including Arizona, New Mexico and Texas – has become more spatially differentiated (Sawers and Tabb 1984). As total manufacturing employment has continued to decline, technologically-

intensive concentrations endure in the north east and west such as Detroit, Chicago and Pittsburgh alongside less technologically-intensive centres in the mid-west and south such as Colorado Springs, Alabama and Houston (Doussard and Schrock 2015). Unfolding deindustrialisation is geographically differentiated and characterised by multiple pathways of adaptation incorporating rapid shifts as well as stasis and reversals. GPE emphasises the need to scrutinise and understand the pathways and extent and nature of such evolutionary trajectories.

A GPE approach provides a means of addressing the common experiences and diverse predicaments of cities and regions coping with deindustrialisation in the global North *and* South. The task then becomes conceptualising and theorising such pathways in ways that overcome the limits of only utilising theory from and of the global North (Murphy 2008). Theorising from a maturity thesis perspective, for example, the account may focus, first, upon the duration and character of the stages of their evolution and transition. And, second, on the barriers inhibiting the evolution of the economy through the pre-defined stages of change and the movement of economic resources out of outdated and uncompetitive industrial sectors and into more advanced, productive and sophisticated forms of economic activity in a Schumpeterian process of creative destruction. Yet, such foci and their interpretations are questioned, first, by the varied pathways of cities, regions and countries undergoing transitions wherein the histories and geographies of the length, economic structure and shifts between stages have been variegated and, second, by ‘premature de-industrialisation’ where transitions are occurring in a different and truncated fashion. The more open and nuanced approach provided by GPE enables its engagement with emergent deindustrialisation phenomena and their unfolding pathways and geographies that traditional theories struggle to explain. Deindustrialisation internationally is inter-connected with an array of emergent changes that reach beyond the boundaries and threaten to undermine existing and traditional theories of explanation: (de)globalisation, geo-political disruption and trade wars; mobile occupational networks; extending and deepening sub-contracting and supply chains; ‘re-

shoring' manufacturing activities back to their traditional heartlands; and, the continued importance of localised and relatively immobile concentrations of expertise (Doussard and Schrock 2015, Livesey 2018).

### *3.2 Institutions and deindustrialisation*

The role of institutions in coping with deindustrialisation has been a longstanding concern in the global North. In particular, old industrial cities and regions were revealed as suffering from different types of 'lock-in' – functional, cognitive and political – that together created path dependencies shaping their future evolutionary pathways (see, for example, Eich-Born and Hassink 2005, Evenhuis 2017, Grabher 1993). Such lock-ins inhibited cities and regions from either renewing and/or modernising their existing industrial structures or diversifying into new related or unrelated activities. Yet, despite recognition of their importance in economic evolution, difficulties persist in establishing definitional, conceptual and theoretical clarity and consistency when considering institutions, and specifying, identifying and explaining the degree, nature and kind of the recursive inter-relationships between institutions and economies in places at various scales (Gertler 2018, Rodríguez-Pose 2013, Zukauskaitė *et al.* 2017). Central difficulties include, first, defining institutions by building upon distinctions and inter-relations between 'hard', universal and transferable social rules codified in constitutions, laws and regulations and 'soft', particular and community features of group life often tacit and expressed in norms, social conventions and traditions. And second the institution-economy relationship is endogenous, making institutions both cause and consequence of economic evolution (Martin and Sunley 2015). Building upon and advancing beyond conceptions and theorisations grounded in the global North, the GPE outlined here has the potential to open-up scrutiny of multi-actor, multi-scalar and multi-

level relations amongst institutions and economies in places (Evenhuis 2017, Zhang and Peck 2016, Zukauskaitė *et al.* 2017).

Three key areas warrant further investigation on institutions in deindustrialisation pathways in the global North and South. First, how do institutions relate to deindustrialisation as an episode of economic evolution? What are the causal relations and processes at work? Have institutions been able meaningfully to shape deindustrialisation pathways in cities and regions or have they played different and/or more reactive roles? The key issue here concerns understanding exactly how and to what extent institutions structure and shape economic activity and how the inter-relationships between agents and institutions work (Gertler 2018). Recent research on deindustrialisation in cities in Britain found that institutional arrangements have been largely accommodating and enabling rather than determining and shaping economic evolution (Evenhuis *et al.* 2019). The economic development organisations in Britain have had only limited powers and resources relative to the scale, nature and pace of deindustrialisation and, as a result, have struggled to more strongly influence its direction, character and outcomes. Institutional actors have been confined to largely working with, rather than challenging or shifting, the grain and direction of economic evolution. Adaptation efforts have effectively made places more able to undertake emergent economic transitions and supported the unfolding of such changes: facilitating and accelerating particular kinds of shifts especially towards more service-based and city-centred economies, and increasing the number of economic development institutions involved and widening their policy mixes to support economic change. Addressing the institution-economy relationship in global South contexts, in cases of premature deindustrialisation and the absolute or relative decline of growth and job opportunities in manufacturing, economic development organisations confront difficult questions about where future growth pathways will come from. Examining how such institutions relate to the economic evolution of deindustrialisation in the global South requires clearer understanding of the institutional architectures and conditions in particular geographical

and temporal settings and widening of the range of institutions and policies considered beyond those typically found in the global North. The focus can helpfully expand in two directions. First is to recognise the existence of “institutional voids” and conflict and contradiction between ‘hard’ and ‘soft’ institutions that shape how the economy works and for which people and places (Mair *et al.* 2012: 819). Second is to open-up to a wider set of institutions all the way from localised community, political and religious groups and organisations to regional and urban bodies to national and international aid, financial and philanthropic organisations and their objectives, strategies, programmes and projects – such as the IMF, World Bank and USAid as well as assorted foundations, trusts, sovereign wealth funds and state-owned enterprises (Mohan and Tan-Mullins 2019).

Second, as institutional arrangements and policy mixes evolve over time in cities and regions, how do they influence the ability of actors to address adaptation challenges thrown up by deindustrialisation pathways? The issues here concern the causes of institutional change (exogenous and/or endogenous), its different kinds, levels and rates (radical, disruptive and fast to incremental, cumulative and slow), and the impacts of legacies and path dependencies (Evenhuis *et al.* 2019). The experience of the cities in Britain demonstrated that episodic and ongoing reorganisation in economic development organisations and policies at the national, regional, urban and local levels generated churn and disruption. Contrasting other international studies that emphasise the innovative potential of such institutional change and divergence between national and sub-national levels (Schröder and Voelzkow 2016), the increased levels of institutional fragmentation and policy diversity in British cities created distractions and inhibited adaptation efforts. Constant and ongoing reorganisation of institutions and policies made it hard for local actors to comprehend, interpret and work with shifting landscapes of organisations, initiatives and funding streams. The key tasks of strategy-making, co-ordinating and integrating were rendered more challenging in the case of the British cities. Contrasting the relative continuity, stability and

long-termism of institutional strategies and policies to cope with deindustrialisation evident in some global North cities and regions (Evenhuis 2017), the converse of discontinuity, instability and short-termism evident in Britain may be experienced in lower income countries struggling with premature deindustrialisation in the global South. Here, macro-economic instability, fiscal stress, limited resources and weaker governance and state structures compound the difficulties of dealing with adverse structural economic change.

For cities and regions coping with deindustrialisation, last, how do the institutional arrangements and policy mixes operate across and between different spatial levels? This issue concerns the inter-connections and overlaps between institutions (re)produced at different spatial levels and the kind, character and directions of their inter-relations (Gertler 2018). Alignment and synchronicity across and between geographical levels is seen as important for the co-ordination and integration central to effective institutional policy design and implementation, while misalignment and disjuncture are seen as problematic (Rodríguez-Pose 2013). For the cities in Britain, top-down, bottom-up *and* cross-scale interactions have undermined the alignment and synchronicity between institutions and resources operating at different geographical scales (Evenhuis *et al.* 2019). Alongside institutional churn and disruption, these kinds of inter-relations have further hampered the ability of actors in cities and regions to adapt and attempt to influence their deindustrialisation pathways and geographies. Shifting national policy frameworks for urban and regional development policy and other spatially-blind domains – including macro-economic, fiscal, industrial, labour market and welfare policies – have proved important and often decisive influences upon the institutions and economies relationship in cities and regions. Rather than linear and top-down transmission mechanisms between spatial levels, the experience in British cities is of more disjointed, indirect and diffuse change. The place of cities and regions within the wider geo-political economy and national variegations of capitalism shape the nature and dynamics of institutional changes and their capacities to influence deindustrialisation pathways. The wider set of actors working at different

spatial levels will again make understanding and explaining such issues different in the global South context. Openness to cross- and intra-scale inter-relations and dynamics is key, challenging simplistic hierarchical and top-down accounts that assume change works directly and straightforwardly from higher to lower spatial levels. Connecting downward to upward and outward causation is a key task (Schröder and Voelzkow 2016). With its actor-centred orientation, process-based understanding of economic evolution and sensitivity to institutional change over space and time, GPE and its multi-level and mixed methodologies provide an appropriate and worthwhile framework and research strategy to tackle each of these institutional questions regarding deindustrialisation internationally.

#### **4. Conclusions, cross-national policy learning and future research directions**

Amidst the renewed concerns with so-called ‘left behind’ people and places and the internationalisation of deindustrialisation, a more global perspective is sought to explain its manifestations and policy responses in the global North *and* South. Attempting to encourage and stimulate engagement, dialogue and mutual learning, this paper has outlined a GPE approach to economic evolution and focused upon geographically differentiated pathways and institutions in deindustrialisation. The aim has been to overcome the fragmentation and compartmentalisation of urban and regional studies that have hampered progress in understanding, explaining and formulating policy for deindustrialisation across the world. Stronger connection and deeper interaction enable cross-national dialogue, debate and mutual learning to better interpret and respond to the emergent manifestations of deindustrialisation within *and* between the global North and South.

The intention is not a simple call to ‘go South’, roll-out global North perspectives in new geographical and temporal settings or diffuse ‘leading edge’ ideas from the ‘core’ to the ‘periphery’ (Murphy 2008). Instead, as deindustrialisation extends its geographical reach, the common characteristics *and* differentiated experiences and pathways in cities and regions across the world present a focus and opportunity for collaborative cross-national comparative research. But this opportunity also presents a challenge. GPE is clearly rooted in and comes from a particular spatial and temporal setting and this shapes its conceptual and explanatory limits. The predominant weight and history of GPE work has, although not exclusively, been largely centred in and from the global North. It is argued here, however, that as a framework and set of methodologies, research designs and techniques GPE can nonetheless make substantive contributions to international studies of deindustrialisation. Such endeavour enables critical reflection upon whether and how GPE concepts and theories retain their explanatory grasp in different spatial and temporal contexts. How does engaging with the deindustrialisation experiences of the global South *and* North reverberate in questioning, modifying and disturbing central concerns and understandings of such critical issues as the extent, character and rate of change, the kinds of institutions and policies involved and the social and political responses? In raising such questions, GPE provides a focus for the longstanding and still important call critically to engage emergent experiences of deindustrialisation to ‘theorise back’ at mainstream and Anglo-American understandings of urban and regional change (Yeung and Lin 2003, Zhu and He 2019). The new internationalising geographies of deindustrialisation provide an opportunity to test, extend or retract the conceptual and theoretical development of GPE in urban and regional studies (Murphy 2008). With its actor-oriented and process-based approach, it is argued here that GPE helps deal with the variegation of deindustrialisation pathways and the differentiation of the degree, character and type of relationships between institutions and economic evolution in cities and regions in the global North and South. Theoretically-informed and conjunctural theorising provide a way forward to grasp the common and generalisable dimensions of deindustrialisation pathways and

their episodic and particular expressions in different geographical and temporal contexts (Peck 2016).

Cross-national policy learning is another opportunity opened-up by conceiving of deindustrialisation from a more global perspective. Such dialogue and flows of knowledge are between east, north, south, and west; not simply one-way from the experienced global North to the rest of the world. Failing to prevent or only either slowing down or accelerating economic evolution, cities and regions in the global North have broadly followed four main strategies in coping with deindustrialisation: abandoning manufacturing and managing decline; curtailing and mitigating manufacturing losses; hastening and supporting transition to a service-based economy; and, retaining and sustaining manufacturing (Pike 2019). Examining whether and how such approaches can be adapted, learnt from or rejected for alternatives for the situations of cities and regions in the global South are key tasks. Importantly, for places dealing with premature deindustrialisation, the kinds of lock-ins and path dependencies that have inhibited and shaped economic evolution in cities and regions in the global North may be less relevant as the structures, institutions and policies of industrialisation are less developed, established and embedded. While the lack of over-bearing legacies may afford some flexibilities and present opportunities for different approaches, these places still confront the difficult task of identifying and constructing the basis for future growth paths if those provided by manufacturing are limited, exhausted or cut-off. Moreover, the shifting global political-economic context since the 2008 crisis presents new challenges for formulating policies to cope with deindustrialisation for cities and regions across the world: economic nationalism, populism and protectionism; trade wars; withdrawals, renegotiations and new international trade agreements; encouragement for national manufacturers to source 'locally' within their domestic national economies; and, in the context of uncertainty and volatility, to reorganise internationalised supply chains and 're-shore' production and bring manufacturing 'back home' to create job opportunities for displaced industrial workers (Bailey and

de Propris 2014, Livesey 2018). All of which developments have complex ramifications for deindustrialisation pathways, institutions and policies in the global North *and* South. Despite some optimistic claims about transforming ‘rustbelts’ into ‘brainbelts’ in the US (van Agtmael and Bakker 2016), the challenges of constructing “adaptive resilience” for places and an ability to ride-out, bounce-back and prepare for such disruptive changes are often formidable and enduring (Cowell 2015).

A number of future research directions are raised by this GPE of deindustrialisation in the global North and South. More cross-national comparative studies are an initial priority especially in moving beyond more common bi-lateral, pair-wise comparison between cities and regions in two national settings. It is argued here that GPE provides a framework able to underpin such investigations because of its integrated, holistic basis and multi-actor, multi-level methodologies. GPE offers a way to make concrete the call to ‘provincialise’ theories of economic evolution in tackling deindustrialisation in the global North and South, using comparison of empirical experiences to challenge and disturb existing conceptualisations and theorisations in novel and creative ways that further understanding and explanation in both geographical settings (Sheppard 2016). Two areas in particular are fruitful to explore. First is examining whether and how economic narratives articulated by actors in places are able to act as formative of future deindustrialisation and transition pathways or whether these narratives can only ever serve as ex-post and descriptive accounts of the preceding episode of change. For cities and regions coping with deindustrialisation formulating, articulating and communicating narratives and imaginaries of often structural transition are seen as important in generating confidence and creating collective projects and directions of economic evolution (Storper *et al.* 2015). The second area is in prompting reflection on whether the conventional focus on GDP and economic growth remains appropriate for areas suffering from de-industrialisation. Intersecting with longstanding research on capabilities and livelihoods from Development Studies (Sen 1999) and the international ‘beyond GDP’ agenda

(Stiglitz *et al.* 2009), alternative constructions and models of ‘development’ (however defined) warrant much further exploration (Pike *et al.* 2017). How such conventional approaches can be combined with emergent work on more inclusive forms of growth (Lee 2019), local and regional capabilities (Perrons 2012) and the foundational economy is worth exploring (The Foundational Economy Collective 2018). Such international comparative research raises challenges, however, for funding, connecting and aligning larger scale, longer term and multi-disciplinary programmes of research over time and between research teams across the world.

A further priority is reflecting upon the continued but changing role of manufacturing in territorial development in an evolving international context of geographically and temporally uneven deindustrialisation and (re)industrialisation. Manufacturing still matters because of its generative role as the flywheel of economic growth. Compared to services, manufacturing has higher potential for technological advances and innovation spill-overs that improve productivity, generate increasing returns to scale, foster backward and forward linkages in supply networks, and create relatively well-paid job opportunities especially for people with limited formal or intermediate level qualifications and skills (Pike 2019). New opportunities and novel possibilities are emerging for manufacturing from the potential of new digital technologies for a ‘4<sup>th</sup> industrial revolution’ and the increasing contribution of services in manufactured products or ‘servitisation’ of goods production (Low 2013). As the contours of change become apparent, considering whether, how, where and when such transitions impact the evolution of deindustrialisation pathways, institutions and policies in the global North *and* South is a key priority for future research.

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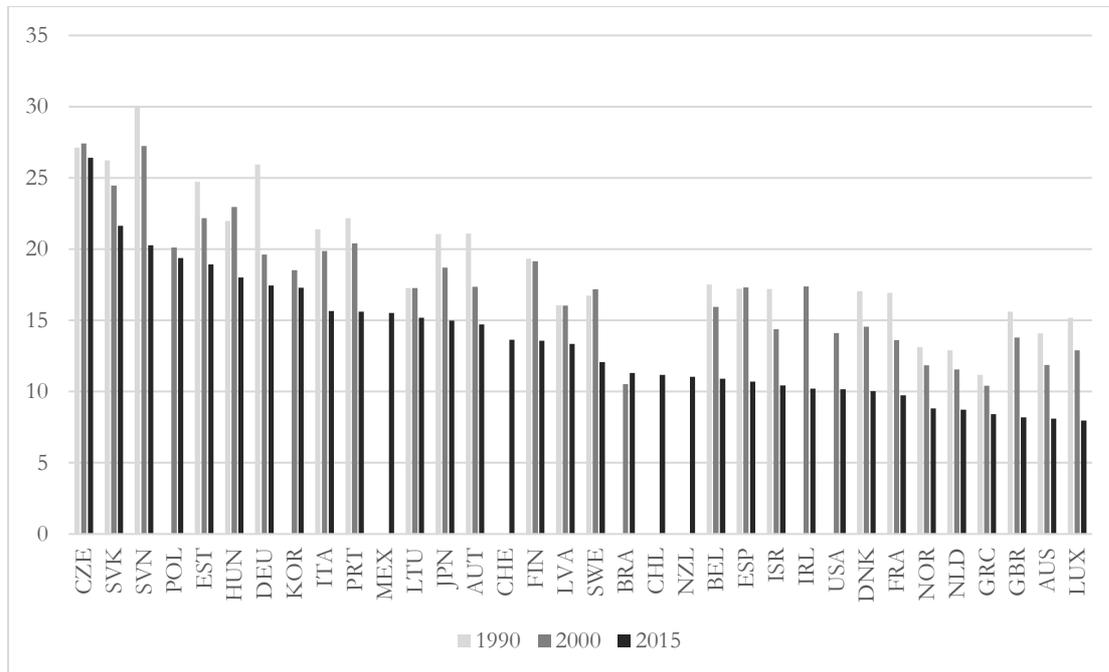
**Table 1: Manufacturing output as a % of national output by selected country, 1970-2015\***

| Country            | Manufacturing output as a % of national output |      |      |      |      |      |
|--------------------|--|------|------|------|------|------|
|                    | 1970   | 1980 | 1990 | 2000 | 2010 | 2015 |
| China              |  |      |      |      | 32   | 27   |
| United States      | 24   | 21   | 18   | 15   | 12   | 12   |
| Japan              | 34   | 27   | 26   | 21   | 20   | 19   |
| Germany            | 34   | 29   | 28   | 23   | 22   | 23   |
| South Korea        | 19   | 24   | 27   | 29   | 31   | 29   |
| India              | 16   | 19   | 20   | 18   | 17   | 16   |
| France             | 22   | 20   | 18   | 16   | 11   | 11   |
| Italy              | 26   | 27   | 22   | 20   | 16   | 16   |
| UK                 | 28   | 23   | 20   | 15   | 10   | 10   |
| Taiwan             | 30   | 36   | 33   | 26   | 30   | 31   |
| Mexico             | 18   | 19   | 20   | 20   | 17   | 19   |
| Spain              | 25   | 23   | 20   | 18   | 13   | 14   |
| Canada             | 22   | 19   | 17   | 19   | 11   | 11   |
| Brazil             | 27   | 31   | 26   | 16   | 15   | 11   |
| Russian Federation |  |      |      | 22   | 15   | 11   |
| Turkey             | 21   | 22   | 29   | 22   | 18   | 18   |
| Indonesia          |  |      |      |      | 23   | 22   |
| Poland             | 31   | 31   | 31   | 18   | 18   | 20   |
| Switzerland        | 23   | 24   | 21   | 19   | 19   | 18   |
| Netherlands        | 26   | 19   | 19   | 15   | 12   | 12   |

\*Based upon \$USD in 2005 prices using 2005 exchange rates

**Source: UN Conference on Trade and Development (UNCTAD)**

**Figure 1: Change in share of manufacturing jobs in total employment by selected country, 1990, 2000 and 2015\***



\*2013 for Australia and Mexico; 2014 for Brazil, Japan and New Zealand. 2004 for Korea. 1991 for Germany; 1992 for Italy; 1993 for Czech Republic and Sweden; 1994 for Japan and the United Kingdom; 1995 for Belgium, Spain, Estonia, Greece, Hungary, Israel, Lithuania, Luxembourg, Latvia, the Netherlands, Slovak Republic and Slovenia

Source: OECD National Accounts database

**Table 2: Employment in industry by country, Eastern Europe, Baltic States and CIS, 1990-1999 (Indices 1989=100)**

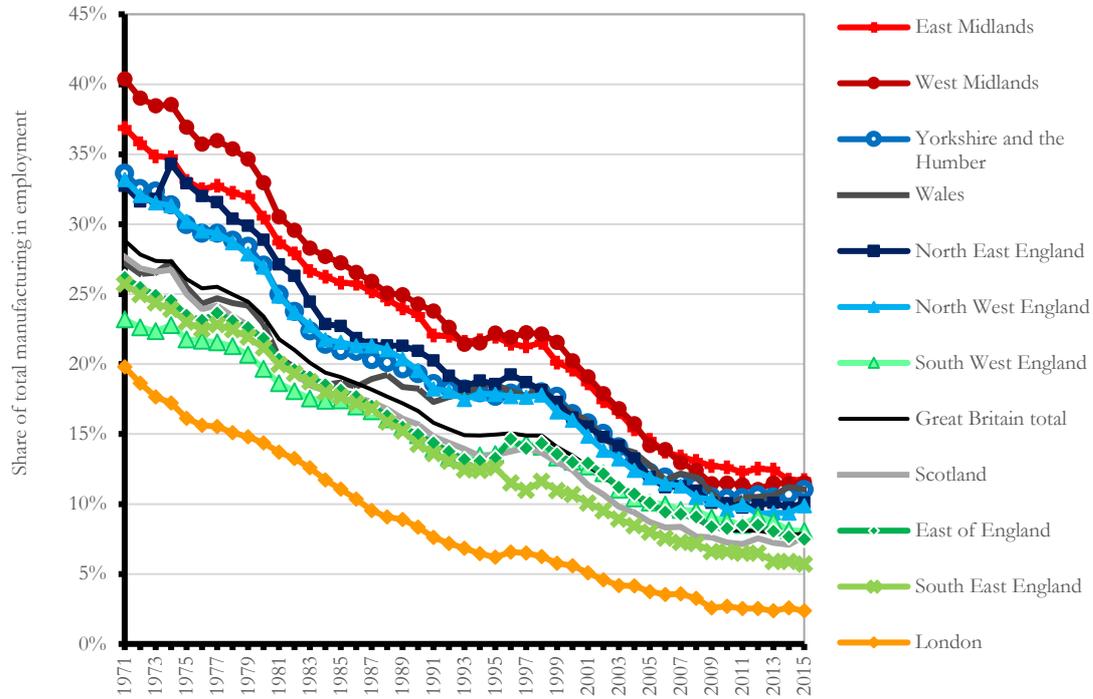
| Country                | 1990  | 1999 |
|------------------------|-------|------|
| <i>Eastern Europe*</i> | 95.6  | 60.9 |
| Albania                | -     | -    |
| Bosnia and Herzegovina | 98.3  | 28.9 |
| Bulgaria               | 91.0  | 46.7 |
| Croatia                | 102.4 | 58.3 |
| Czech Republic         | 95.8  | 73.4 |
| Hungary                | 97.0  | 66.4 |
| Poland                 | 93.7  | 69.5 |
| Romania**              | 96.5  | 49.5 |
| Slovak Republic        | 95.7  | 65.4 |
| Slovenia               | 95.1  | 66.7 |
| Macedonia              | 95.3  | 55.4 |
| F.R. Yugoslavia        | 100.9 | 65.3 |
| <i>Baltic States</i>   | 96.8  | 54.0 |
| Estonia***             | 96.9  | 63.6 |
| Latvia                 | 97.0  | 45.7 |
| Lithuania              | 96.7  | 55.7 |
| <i>CIS</i>             | 98.2  | -    |
| Armenia                | 102.6 | 40.5 |
| Azerbaijan             | 97.1  | 53.6 |
| Belarus                | 98.6  | 76.2 |
| Georgia                | 104.2 | -    |
| Republic of Moldova*** | 102.4 | 35.9 |
| Russian Federation     | 97.7  | 62.6 |
| Ukraine                | 98.1  | 54.4 |
| <i>Total Above</i>     | 97.4  | -    |
| Former Soviet Union    | 98.2  | -    |

\* Excluding Albania. \*\* End of year. \*\*\* Excluding Transdnistria since 1993

**Source: Adapted from UN/ECE Common Database data in Philipov and Dorbritz (2003)**

Figure 2: Change in share of manufacturing in total employment by region, UK, 1971-

2015



Source: Cambridge Econometrics