



Structural Transformation, Adaptability and City Economic Evolutions

An ESRC-Funded Research Project under the ESRC Urban Transformations Initiative

WORKING PAPER 8

Case Study Report

GLASGOW

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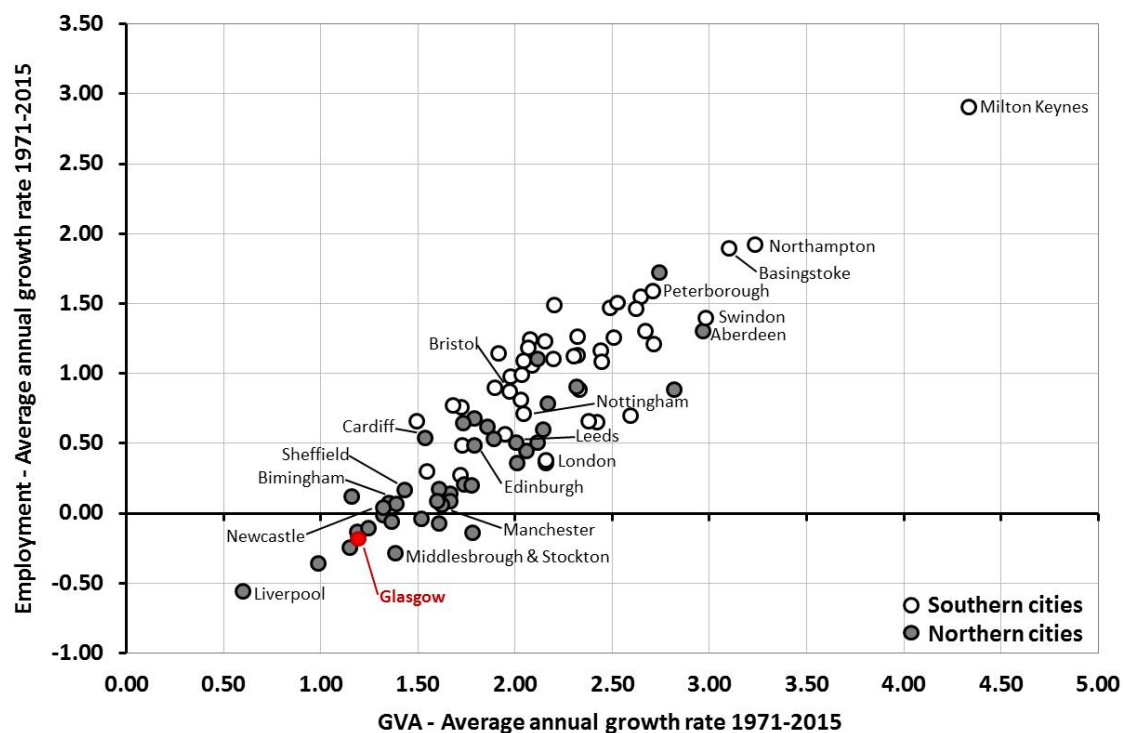
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1 Introduction

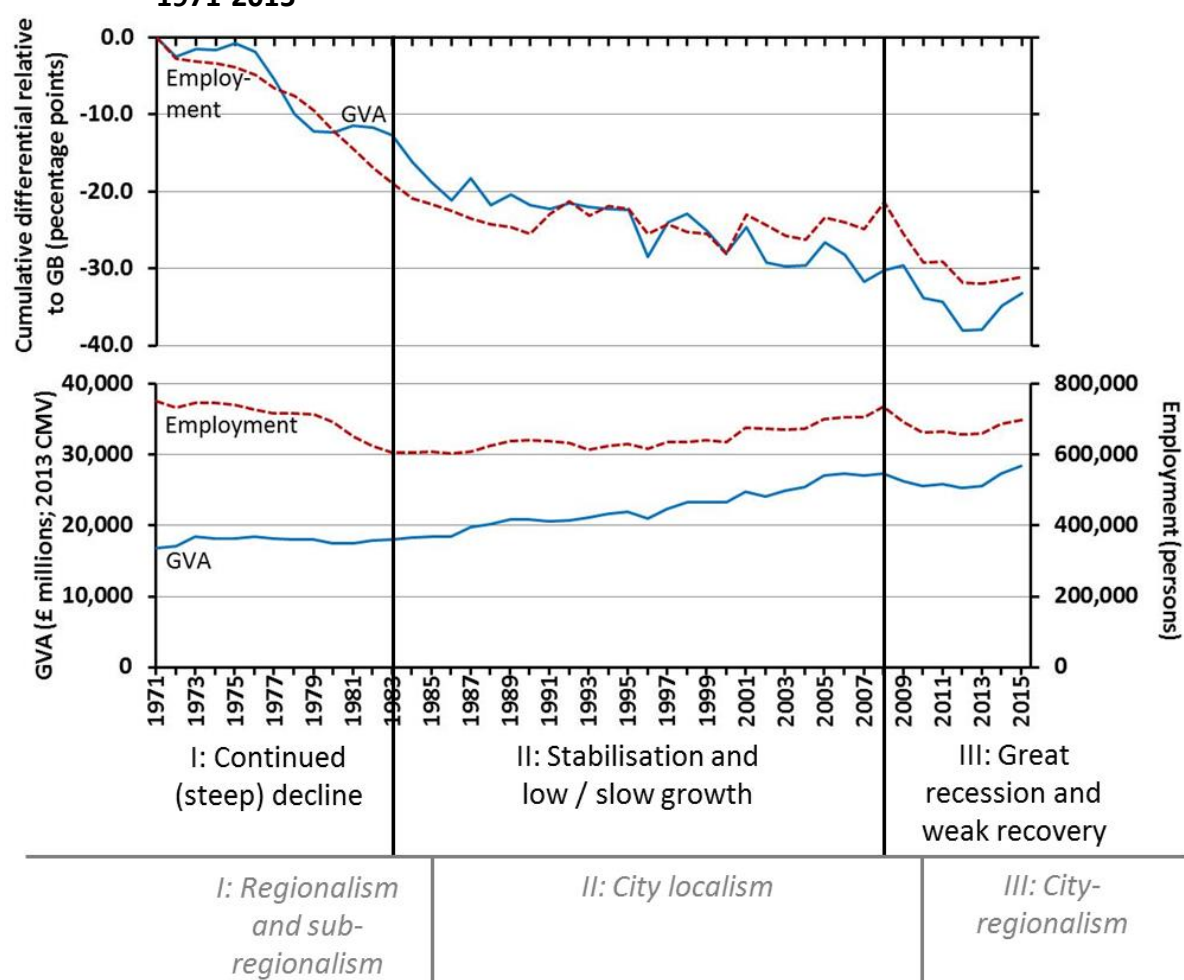
Since the early 1970s, Glasgow has been characterised by substantially below average GVA growth and employment decline, lodged in a group of northern cities with similar trajectories (Figure 1) (Tyler *et al.* 2017). Based on absolute and relative change in GVA and employment compared to national (Great Britain) levels, Glasgow's economic path can be divided into three main episodes: Episode 1 (1971-1983) continued steep decline; Episode 2 (1984-2007) stabilisation and low/slow growth; and, Episode 3 (2008-2014) crisis and weak recovery (Figure 2). Structural change, economic evolution and adaptation of the Glasgow economy can be explained primarily by the socially and spatially uneven unfolding of the processes of deindustrialisation and transition towards a service-based economy.

Figure 1: GVA and employment change, Glasgow, 1971-2015



Source: Cambridge Econometrics data constructed for the ESRC 'Structural Transformation, Adaptability, and City Economic Evolutions' project

Figure 2: Major episodes of economic, institutional and policy change in Glasgow, 1971-2015



Source: Cambridge Econometrics data constructed for the ESRC 'Structural Transformation, Adaptability, and City Economic Evolutions' project

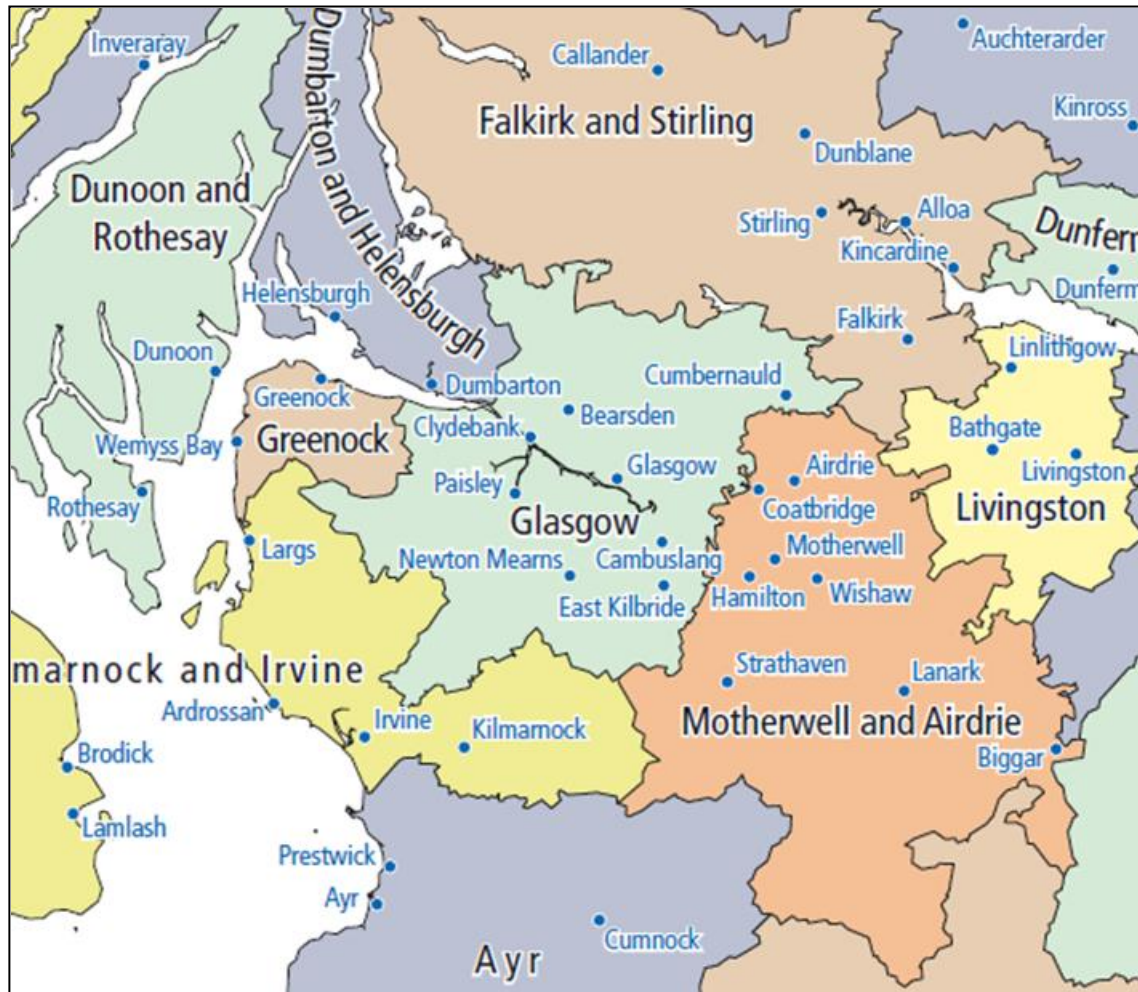
Over the same period from the early 1970s, the institutional arrangements have evolved from local authority-led, broadly-based, multi-purpose, regional and sub-regional level, and integrated co-ordination frameworks (Episode 1: Regionalism and Sub-regionalism, 1970-1985)(Figure 2). A shift has occurred towards a system characterised by leadership and partnership of the local authority with other public, quasi-public and private entities focused upon specialised and narrower functional and more localised territorial (city and intra-city scale) remits working within relatively more fragmented, streamlined and less well-resourced structures (Episode 2: City localism, 1986-2009). Since 2010, a further evolution towards a more (city-)regional (Glasgow and Clyde Valley), centralised and national-Scottish orientation is evident (Episode 3: City-regionalism, 2010-). These shifts in

institutional arrangements have been marked by ongoing churn and reorganisation and shaped by the strategies and relations between Glasgow City Council and neighbouring local authorities, the Scottish and UK governments, and the EU.

Since the early 1970s, the evolution of policies in Glasgow has undergone a broad shift from a strategic, planned and redistributive statist model focused on the regional (West Central Scotland) and sub-regional (Clydeside) levels with larger scale, broadly based, longer term and hard/physical infrastructure interventions (Episode 1: Regionalism and Sub-regionalism, 1970-1985)(Figure 2). The evolution has been towards a more ad hoc, experimental and tactical market and business-oriented model at the city level (Glasgow) with smaller scale, targeted (i.e. by geography, sector and/or enterprise type), shorter term and soft/social infrastructure and supply-side initiatives (e.g. business support, innovation, skills)(Episode 2: City localism, 1986-2009). Since 2010, a further evolution is unfolding with the re-emergence of city-regional, medium scale, longer term and more hard/physical infrastructure policies (Episode 3: City-regionalism, 2010-) (Figure 2).

For Glasgow, this case study outlines the context and its brief economic history. It then describes and explains the comparative economic performance of the city in the national context and the underlying processes of structural economic change. It then explains the evolution of the city's institutional arrangements and policies, and discusses their broad effects upon its economic path, and finally draws some conclusions. This report draws upon a comprehensive new data-set on the economic performance of all Travel To Work Areas (TTWAs) in Britain with a population above 200,000 since 1971 (Martin *et al.* 2017). The data analysis relates to the 2011 TTWA for Glasgow (Figure 3), and this functional economic area does not exactly align with evolving local authority boundaries over the period.

Figure 3: Glasgow Travel to Work Area (TTWA) (2011 definition)



Source: Office for National Statistics (ONS)

The arguments are threefold. First, the extent, nature and rate of structural economic change is integral to explaining city economic evolution and adaptation *and* the roles of institutions and policies. For Glasgow, the large scale, rapid and sustained deindustrialisation has configured (rather than simply determined in a clear, linear fashion) policy formulation and institutional design in multiple ways. The size and depth of economic change, the repeated and rapid shocks to the economy, and their chronic and prolonged nature as well as their localised geographies have shaped how actors working at different spatial levels have operated, organised their institutions and formulated policy interventions of certain kinds. In their efforts to influence structural change and the adaptation and re-orientation of the city economy, actors have constructed particular diagnoses of the problems, developed policy and institutional responses of certain types,

and shaped the conditions and future directions for the extent and nature of structural economic change and adaptability in specific ways. Local actors have had a degree of autonomy in policy formulation within the context of national UK and, following devolution, especially Scottish government frameworks. The Glasgow experience suggests the dimensions and trajectories of the unfolding paths of structural economic change in cities play a discernible and causal role amongst other factors especially national economic and regional policy in shaping and explaining (rather than simply determining) institutional arrangements and policies.

Second, and relatedly, the extent and character of city economic change forms a context in which public sector institutions and their policies acquire roles of particular kinds. For Glasgow, the level and nature of economic change and the weakness and restructuring of the private sector positioned the public sector as a principal actor and public policies as the main interventions in attempts to influence economic evolution and adaptability. The form of structural economic change and shifting composition of private actors situated public sector institutions as central to the tasks of trying to encourage and promote its positive dimensions (e.g. emergent new growth sectors) and ameliorate and mitigate its negative aspects (e.g. large scale job loss). Acknowledging that the public sector has been the “prime mover of much of the change” since 1945 in Glasgow (Lever and Mather 1986: 1), this role has been evident through mainstream (e.g. education, health, housing) as well as urban and regional economic and regeneration institutions and policies.

Last, institutions and policies exert discernible influences upon structural economic change, evolution and adaptability in cities but the level, character and form of their influence is variegated over time and space. Rather than being clear cut, definitive and contained, the roles of institutions and policies are episodic and conjunctural: their influence and imprint is more evident in certain times and spaces and under particular conditions. For Glasgow, the scale, rapidity and prolonged nature of deindustrialisation was addressed by institutions and policies in a strategy of promoting modernisation and attempting to hasten in a managed and co-ordinated way the structural re-orientation of the city’s economy towards new and growing economic activities. A strategy pursued in the context of a

restructuring labour market, jobs gap, unemployment, deprivation and the national dismantling of the redistribution and welfarism of spatial Keynesianism. What transpired was more akin to a scramble to accelerate the transition towards a service-based city economy due to the rapidity and scale of job losses hatched a distinctive economically, socially and spatially uneven form of adaptation. Institutional and policy support sought to accelerate and embed the positive impacts of wider trends in the Glasgow city economy and fostered the emergence of a particular kind of focused service economy that shaped the city's subsequent development path and potential. City economic strategy was marked by its shift to a city-centre focus and promotion, external economies of agglomeration rationale, indigenous and exogenous (especially inward investment) approaches, and selected sectoral emphasis (digital/tech, finance, property and culture). In common with other British cities struggling with uneven post-industrial transition (see, for example, Power 2016, Robinson 2002), Glasgow's service economy is characterised by its social and spatial labour market polarisation between higher-end knowledge intensive business services and lower-end service jobs, hollowing-out and limited intermediate/mid-level jobs, growth of the public sector and, beyond the focus upon some advanced manufacturing, the relative neglect of the remaining industrial sectors in the city economy. The path of structural economic change and adaptation in Glasgow has been shaped too by its position within the wider city-region, Scottish, UK and international economy, and the interaction of institutions and policies on economic development and housing in the context of suburbanisation and its tight boundary within the wider functional economic area (Arnott 2006) (Figure 3).

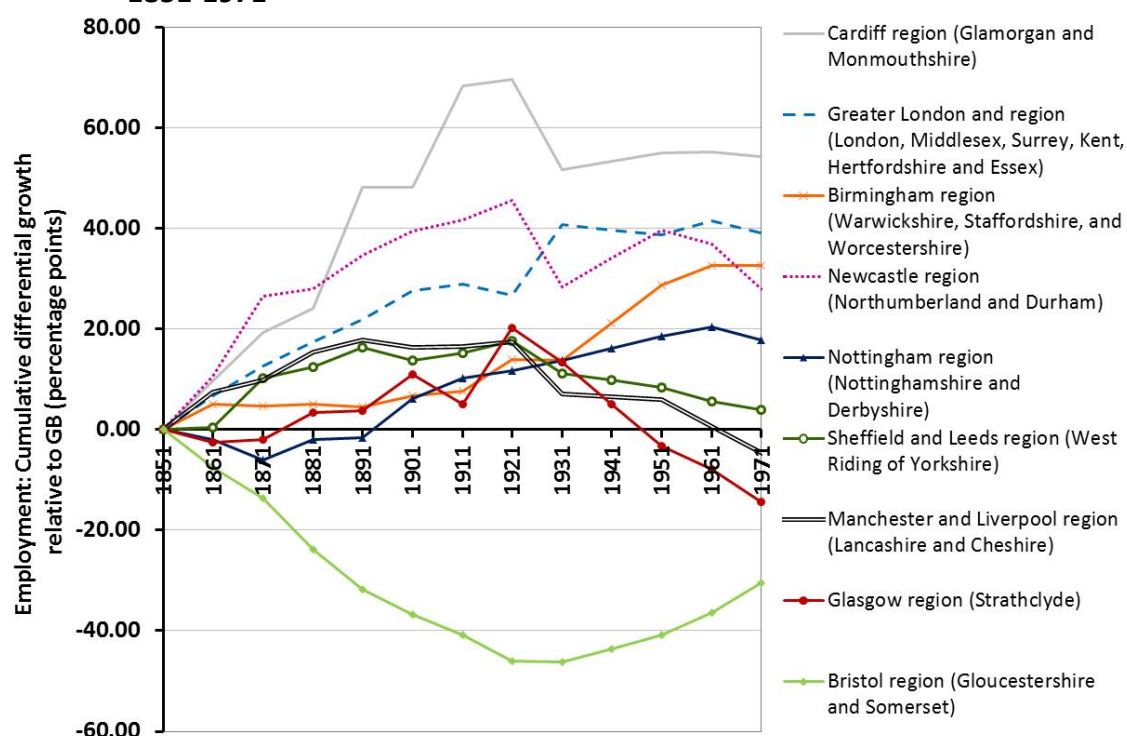
2 Context and brief economic history

Glasgow was founded as a city in the 12th century. An initial key episode of Glasgow's growth occurred during the age of empire and colonial expansion in the 18th century which stimulated the city's transition from an ecclesiastical, academic and market centre into an internationally-oriented commercial and trading hub (Lever and Mather 1986). The 18th century end of slavery and the tobacco trade, loss of colonies and the technological

advance of the age of steam power enabled Glasgow's transition into a manufacturing centre based upon local resources of coal and iron ore. Glasgow grew rapidly through industrialisation and urbanisation, fuelled by large scale in-migration from the Highlands of Scotland and Ireland (Lever and Mather 1986).

Glasgow's second key episode of development was during the industrial era in the 19th century as the "second city of Empire" (Fraser 2004: 1). 'Carboniferous capitalism' (Hudson 1989) fostered economic specialisation in heavy engineering, including rail locomotives and shipbuilding, and underpinned an urban industrial growth complex founded upon skilled labour, innovation, related and supporting industries and suppliers of ancillary goods and services (Turok and Bailey 2004). Employment in the Strathclyde urban region with Glasgow at its core expanded steadily and above national growth levels between 1876 and 1901 (Figure 4). By 1864, 20 shipyards operated on the Clyde, employing half the British shipbuilding workforce by 1870 and producing half the tonnage of shipping (Fraser 2004). These heavy industries supplied the UK market and developed export markets across the world, especially within the British empire (Pacione 2009). Circular and cumulative causation propelled Glasgow's rapid economic growth trajectory as part of an expanding industrial corridor in Clydeside, reaching from North Lanarkshire in the east to Inverclyde in the west. During this period, Glasgow became "one of Britain's pre-eminent industrial cities" (Turok and Bailey 2004: 171).

Figure 4: Cumulative deviations in employment growth by urban regions in the UK, 1851-1971



Source: Lee, C. H. (1979) British Regional Employment Statistics 1841-1971. Cambridge: Cambridge University Press.

The third key episode in the early part of the 20th century was more turbulent and volatile for Glasgow's industrial economy. In the early 1900s, economic prosperity faltered, employment declined between 1901 and 1911 (Figure 4), and rapid population growth transitioned into stagnation and net decline through out-migration (Pacione 2009). The stimulus of armaments production for World War I between 1914-18 created "artificial boom conditions" (Pacione 2009: 148) that generated renewed but temporary demand for Glasgow's heavy industries of locomotives and shipbuilding. Employment expanded and reached its historical peak in 1921 (Figure 4). The inter-war years of 1918-1939 were marked by a return to decline and employment contraction in the key industries of coal, shipbuilding, pig-iron and steel production. Defence markets contracted and international economic conditions deteriorated in the economic slump of the Great Depression during the 1930s. Further and similarly temporary re-armament stimuli generated by defence spending for World War II between 1939-1945 and the Korean conflict between 1950-53 rekindled growth in Glasgow's heavy industries but proved short-lived (Young 2015).

Attempts to develop high volume manufacturing, for example in automotives, were limited and failed to last as the Rootes car assembly plant's demise in 1981 in nearby Linwood, Renfrewshire, demonstrates.

The fourth key period post-war presaged an episode of renewed and more lasting deindustrialisation. The iron, steel, heavy engineering and shipbuilding industries in Glasgow fell into prolonged decline from the 1950s through to the early 1970s. Employment fell sharply from the early 1940s and contracted faster than national levels throughout the 1950s and 1960s (Figure 4). The causes of decline were multiple and inter-related. First, specialisation in a relatively narrow base of economic activities and sectors rendered Glasgow's industries susceptible to swings and cycles, especially given many of the markets were shaped by demand from the UK and other nation states and wider geo-political circumstances. Second, the industries were focused upon making producer goods for which markets were limited and stagnant rather than consumer goods for which there were growing mass markets as international and domestic economic conditions improved amidst the recovery of the post-war period. Third, many of the industries in Glasgow operated in relatively closed and protected markets. Firms were insulated from longer-term technological changes and pressures to innovate especially through the transition from the steam age to the oil-based economy. This position rendered them vulnerable to growing overseas competition in an internationalising economy marked by the rise of more productive and innovative businesses in the US and Germany. As the new dimensions of structural economic change unfolded, the industrial structure in Glasgow rapidly became outdated. The adaptability of the city economy was hampered by distance from markets, inadequate replacement of capital equipment and products, and aggravated by external ownership and the lack of higher level and strategic functions and decision-making power within both private companies and nationalised industries, mergers and acquisitions by foreign-owned businesses, and undermined by the lack of investment in basic infrastructure and premises, and obsolete skills (Slaven 1975, Checkland 1976, Pacione 2009, Young 2015).

By the early 1970s, large scale, rapid and prolonged deindustrialisation had seriously eroded the city's economic base. Glasgow appeared to be a case of "arrested development" with an ongoing struggle to formulate policies to deal with its "apparently intractable socio-economic problems" (Cameron 1971: 315). Glasgow and Clydeside were trapped in a situation of persistent economic decline marked by slow growth, reduced employment opportunities, limited investment, mass redundancies, unemployment, reduced incomes, negative local multipliers, and population flight (Hausner 1987). A high proportion of Glasgow's employment was concentrated in slow growing, stagnant or declining industries with only a small proportion in growing sectors (Pacione 2009). Over a quarter of total employment in 1961 or 142,000 jobs were lost in Glasgow City between 1961 and 1981 (Lever and Moore 1986a). One third of its population left over the same period, around 25,000 every year, especially the young and relatively better educated (Lever and Moore 1986a). This economic malaise meant "The City of Glasgow lay at the heart of a high-cost low-productivity industrial region capable of achieving only limited success in the global economy" (Pacione 2009: 149).

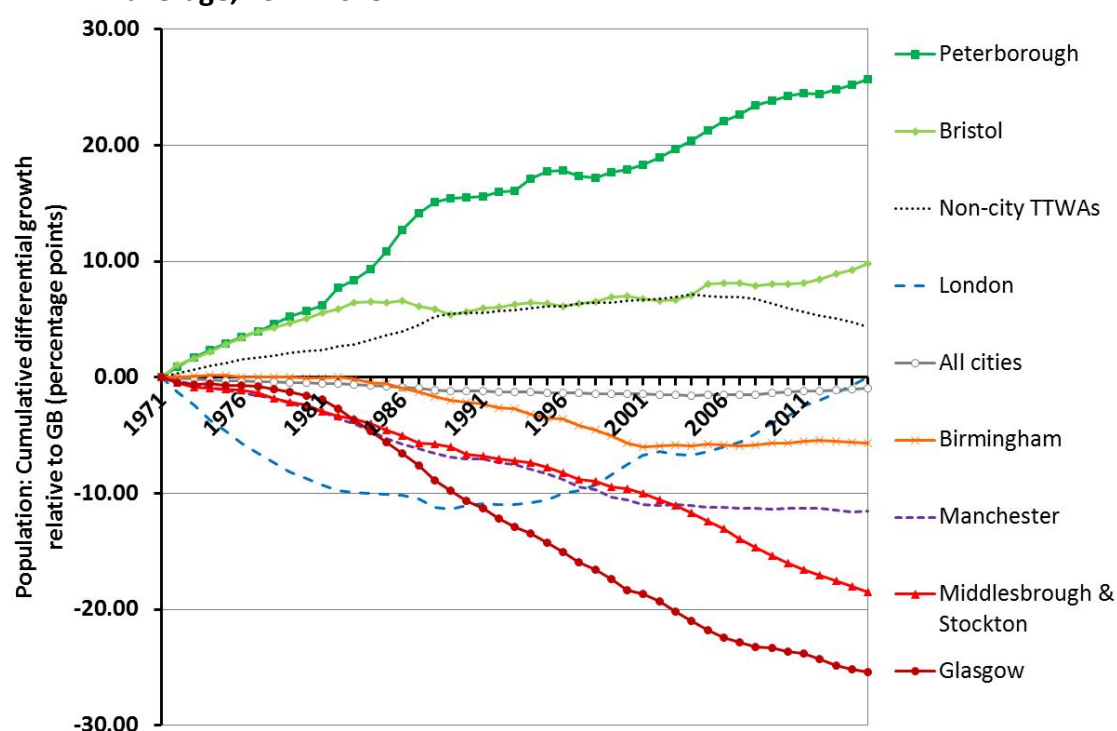
The economic history of Glasgow's development path up to the early 1970s bequeathed several legacies that have shaped the city economy's structural change, evolution and adaptation. First, the scale, rate and prolonged nature of deindustrialisation deeply affected and conditioned the nature of economic change and strongly influenced the ability of actors to organise appropriate institutions and formulate effective economic development policies. The ramifications of the magnitude and pace of changes since 1945 are "not so much that they have altered the character of the city but that they have done so with such speed" (Lever and Mather 1986a: 1). Second, the enduring dominance of the specialisation in the city's economy in a narrow range of heavy industries tilted its economic structure towards a range of economic activities locked in a spiral of long-term decline. This setting trapped its firms, labour pool, supply base and related institutions in an economic base ravaged by deindustrialisation. Third, the dominance of large employers in the heavy industries fostered an employee rather than employer culture that stymied enterprising attitudes, behaviours and new business start-ups: the manifestation of Checkland's (1976) infamous Upas tree effect.

Fourth, the absence of higher level, strategic and decision-making power, functions and institutional capacity within both private companies and the then nationalised industries as well as external ownership and control outside the Glasgow, Scottish and UK economies inhibited adaptive capacity through limiting strategic change and hampering investment in innovation and upgrading activities. Last, the geographically concentrated and localised processes of cumulative decline have affected certain parts of Glasgow acutely – especially the East End, south side and inner northern areas. This geography has made it difficult to stabilise and reduce their rate of economic decline or stimulate recovery due to the closely connected and mutually reinforcing problems of unemployment, inactivity, obsolete skills, low levels of educational attainment, rising public service needs, and physical problems of abandonment, blight, poor quality housing and inaccessibility (Pacione 2009, Turok and Bailey 2004).

3 Comparative economic performance

In population terms, Glasgow has experienced prolonged population decline since the early 1970s in comparison with national levels (Figure 5). In absolute terms, this downward trajectory bottomed-out in the mid-2000s and has undergone a modest upturn and growth through the crisis to 2014. This growth has been weaker than other city-regions nationally, comprising relatively low levels of natural growth and net international migration (ONS 2016). From 1.43m in 1971, in 2014 the city of Glasgow's population returned to its level of the early 1990s at just under 1.3m. In comparison with other British cities, Glasgow has experienced amongst the highest levels of population decline since the early 1970s (Figure 5). Over the time period, Glasgow is at the bottom end of the range of TTWAs in Britain alongside Birkenhead, Sunderland and Dundee with only Liverpool experiencing sharper population decline.

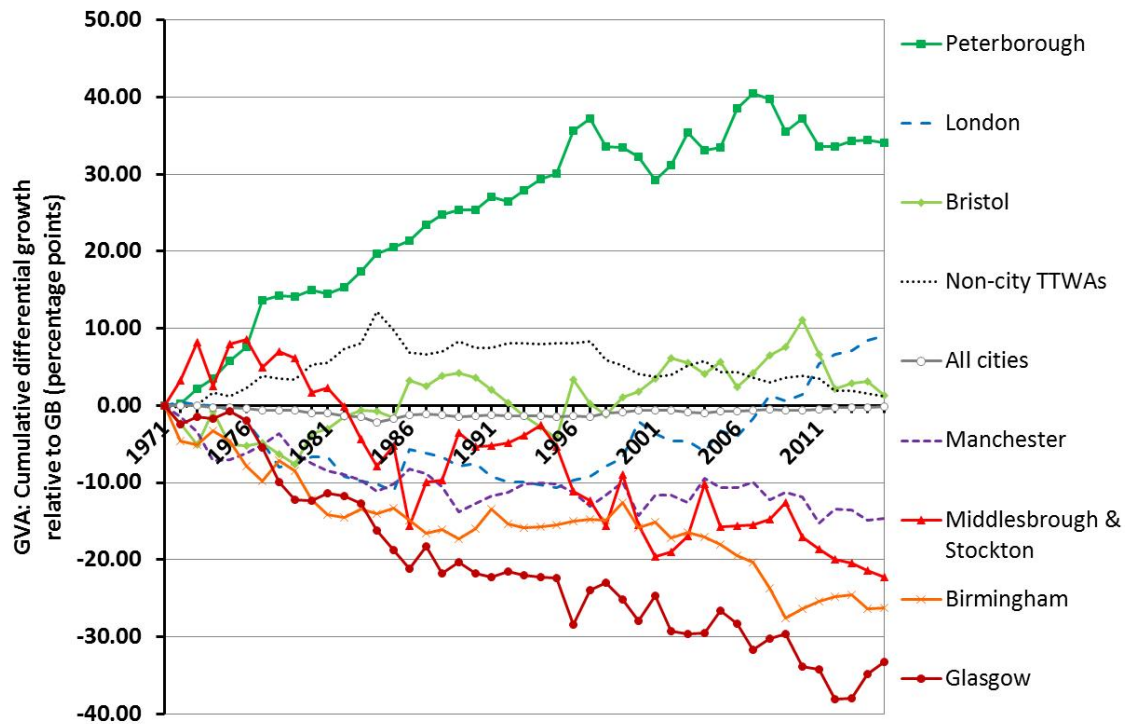
Figure 5: Cumulative differential growth of populations of case cities relative to GB average, 1971-2015



Source: Cambridge Econometrics data constructed for the ESRC 'Structural Transformation, Adaptability, and City Economic Evolutions' project

Glasgow exhibited slight GVA growth towards national levels in the early 1970s and early 1980s amidst a longer-run trajectory of decline, deepening during the mid-1970s and mid-1980s (Figure 6). While short-lived peaks of convergence with national levels punctuate the late 1980s, late 1990s, and mid-2000s, recovery has been demonstrated from the mid-2010s from a low base. In absolute terms, the level of GVA has been flat during the 1970s at under £20,000m, and grown consistently but slowly from the 1980s to nearly £30,000m up until the fall around the 2008-09 crisis and the flattening out then increase in 2013 and 2014 (Figure 2). Compared to other British cities, Glasgow has the worst performance with marked decline and divergence from national trends from the early 1970s, only punctuated by some short upturns (Figure 6). Glasgow again resides at the bottom end of the range of TTWAs in Britain alongside Dundee with only Wolverhampton and Liverpool experiencing sharper declines in GVA over the same period.

Figure 6: Cumulative differential growth of total GVA of selected case study cities compared to GB, 1971-2015

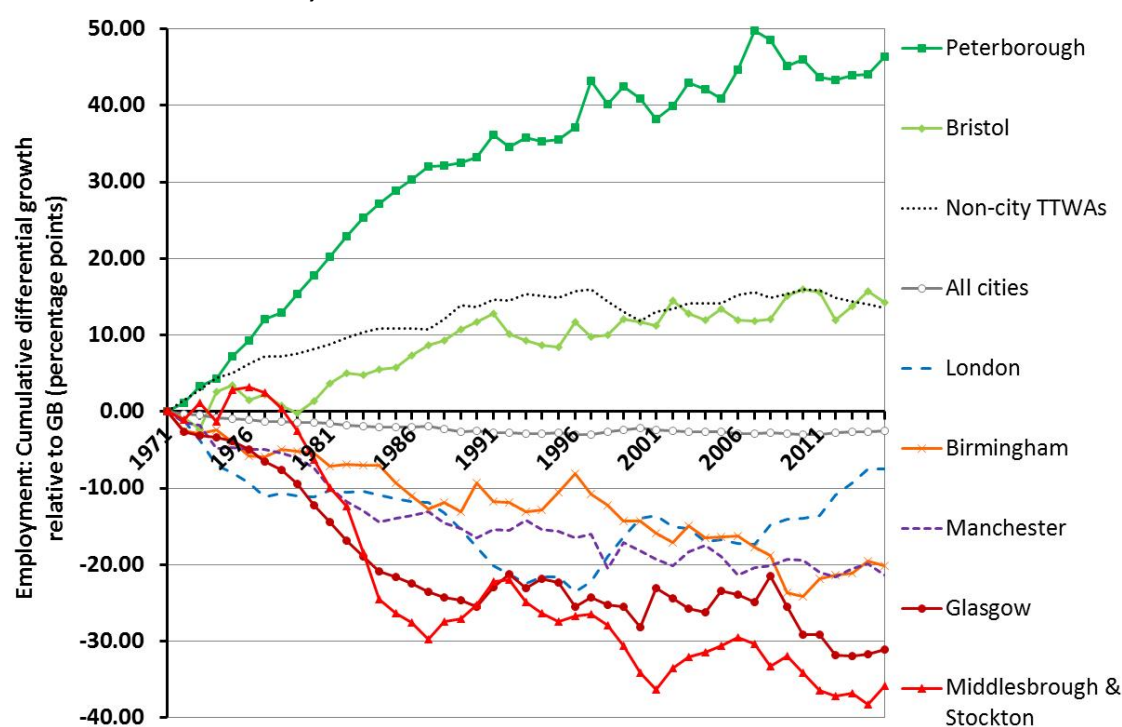


Source: Cambridge Econometrics data constructed for the ESRC ‘Structural Transformation, Adaptability, and City Economic Evolutions’ project

Glasgow experienced continued decline in employment from the early 1970s to the late 1980s in its national context, following the downward trajectory of the post-war period (Lever and Mather 1986) (Figure 7). An episode of sharper decline occurred from the late 1970s and early 1980s, driven by the intensification of de-industrialisation and job loss, followed by some short points of convergence towards national levels and stabilisation from the late 1980s then a sharp decline after the 2008 crisis and flattening out in the 2010s. In absolute terms, a slow and sustained growth occurred from the early 1990s up until the falls after the 2008-09 crisis followed by a period of stabilisation and slight upturn in 2013 and 2014. By 2014, the city had yet to recover its levels of employment from 1980. During the 1990s and 2000s, employment growth created particular kinds of job opportunities ill-matched to the qualifications and skills of core city residents such as “manual rich industrial sectors (manufacturing, transport, distribution and construction jobs)” and better suited to higher qualified and skilled-labour from other parts of the city and surrounding areas in “predominantly white-collar sectors” (business and financial

services, public and other services) resulting in higher levels of in-commuting (Turok and Bailey 2004: 171). The changing labour market and new job opportunities increased levels of women's labour market participation and employment while men suffered from the contraction of industrial jobs (Turok and Bailey 2004). Employment opportunities capable of retaining and growing the younger working age groups (25-44) were critical to enhancing adaptability to changes in the city's economic base (Arnott 2006). Glasgow sits at the bottom end of the range of TTWAs in Britain alongside Merthyr Tydfil with only Middlesbrough and Stockton, Dundee, Sunderland, Wolverhampton and Liverpool experiencing sharper employment decline.

Figure 7 Cumulative differential growth of total employment in case study cities relative to GB, 1971-2015

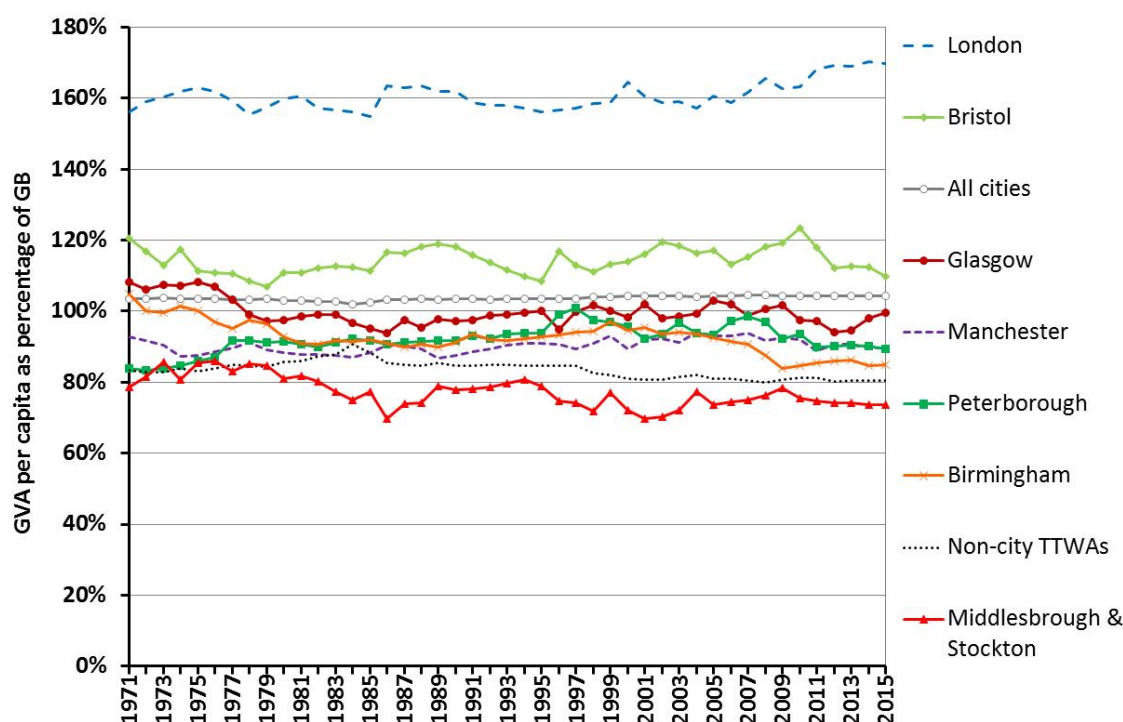


Source: Cambridge Econometrics data constructed for the ESRC 'Structural Transformation, Adaptability, and City Economic Evolutions' project

GVA per capita in Glasgow was greater than the national level until falling below it in the late 1970s where it has largely remained ever since, closing the gap for short periods in the early and late 1980s and early 1990s and rising above national levels in the mid and late 1990s as well as the early, mid and late 2000s before the crisis (Figure 8). In absolute

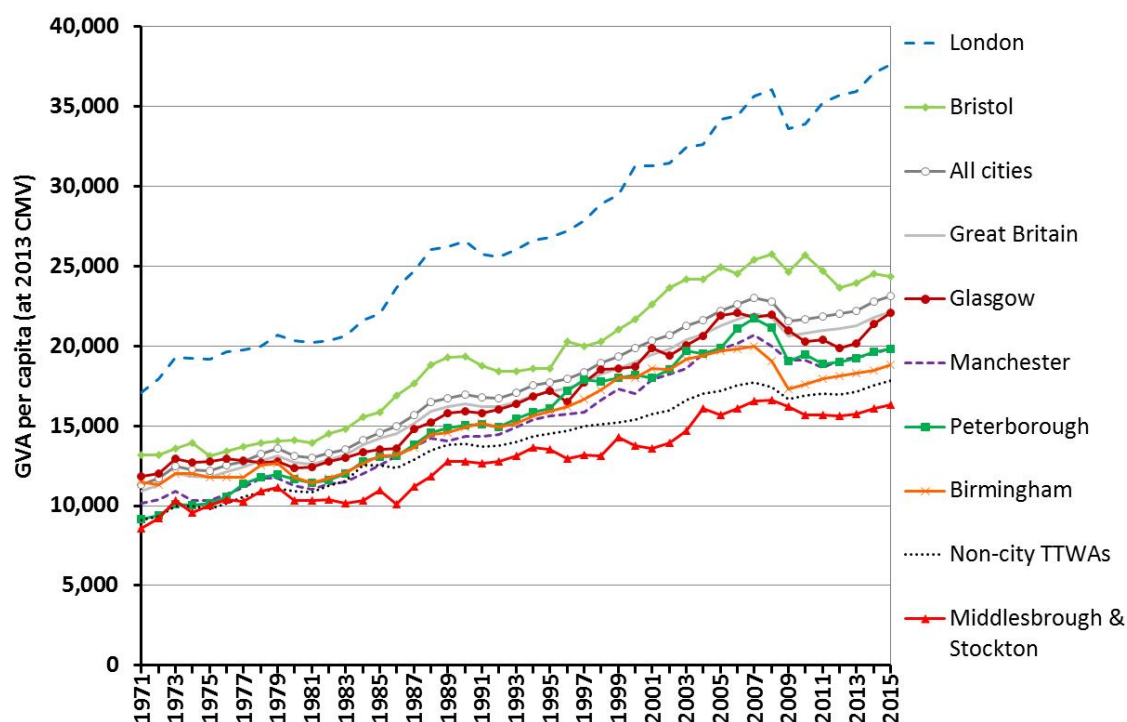
terms, Glasgow has broadly tracked the national trajectory at a slightly lower level since falling beneath it in the late 1970s, although the dip and recovery are noticeably steeper than in other cities following the crisis (Figure 9). Glasgow's labour productivity kept pace with many other British cities within a narrow range up until 1991 and stayed close but below the national level during the period of divergence since 1991 (Figure 10) (Martin *et al.* 2016). Again the particular nature of tertiarisation is key, especially the relative small scale attraction and development of KIBS in Glasgow. Productivity increases are "no simple panacea for ensuring city prosperity" (Turok and Bailey 2004: 154), however. The relationship to city economic strategy, adaptation and employment is key, for example has output per worker been enhanced by 'low road' strategies of job shedding or work intensification rather than innovation and upgrading?

Figure 8: Development of GVA per Capita in Case Study Cities as a Percentage of GB, 1971-2015



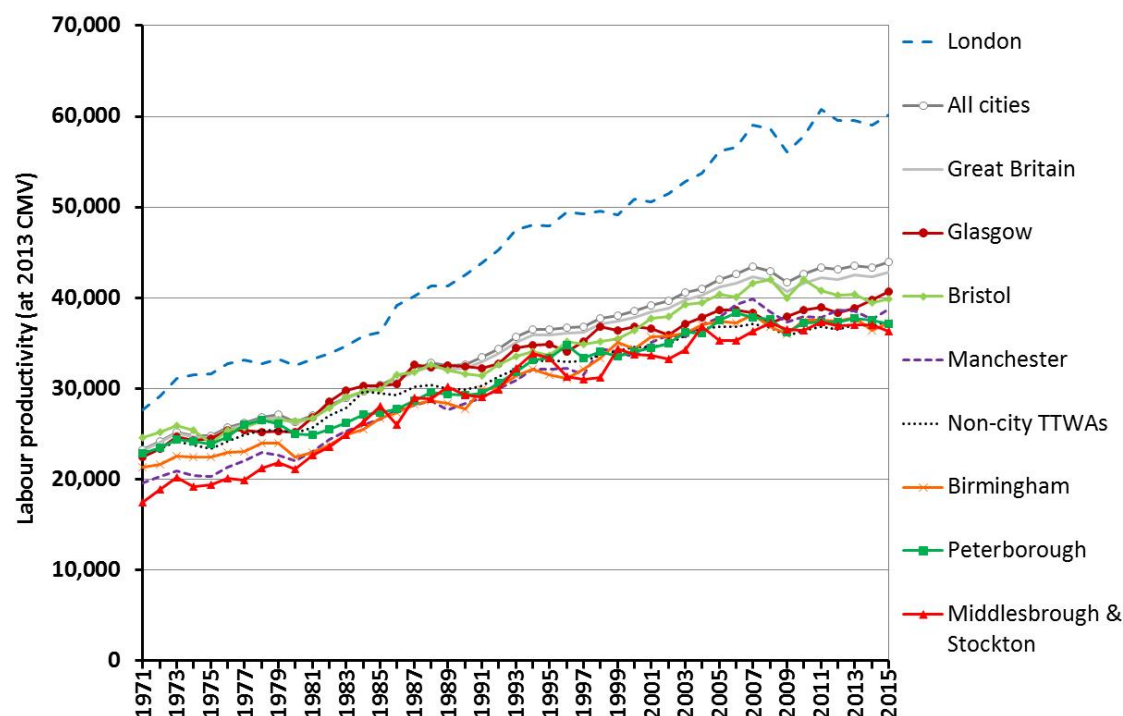
Source: Cambridge Econometrics data constructed for the ESRC 'Structural Transformation, Adaptability, and City Economic Evolutions' project

Figure 9: GVA per capita by selected city, 1971-2015



Source: Cambridge Econometrics data constructed for the ESRC 'Structural Transformation, Adaptability, and City Economic Evolutions' project

Figure 10: Labour productivity in selected cities, 1971-2015



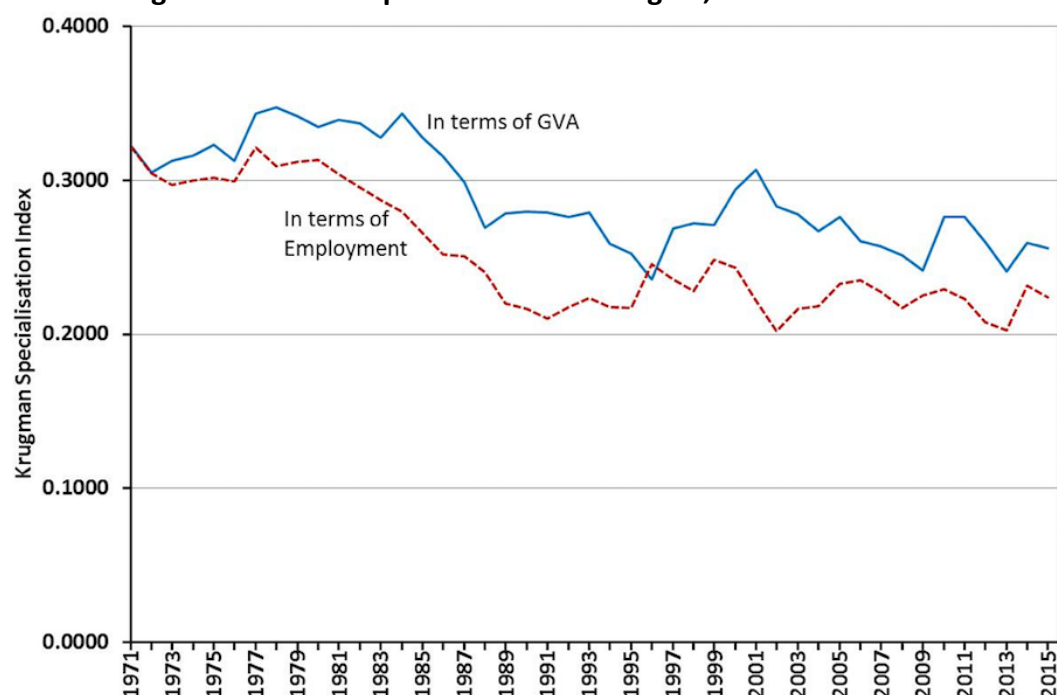
Source: Cambridge Econometrics data constructed for the ESRC 'Structural Transformation, Adaptability, and City Economic Evolutions' project

In summary, Glasgow's overall economic performance since the 1970s is marked by three periods of continued decline until the early 1980s, stabilisation and low/slow growth until the crisis in 2008, and then further decline and weak recovery (Figure 2). In common with other large formerly industrial cities in the UK such as Birmingham, Liverpool and Newcastle, Glasgow has followed a path shaped by socially and spatially uneven de-industrialisation and transition towards a service-based economy. Population and employment have undergone decline and weak, prolonged recoveries. GVA has been in long-term decline, punctuated only by some short-lived upturns. Productivity in the city has been tracking the national level, albeit at a slightly lower level since the late 1970s.

4 Structural economic change

The structure of Glasgow's economy has evolved since the early 1970s. Krugman indices demonstrate that output specialisation in the TTWA was relatively similar to national levels in the early 1970s and has become slightly more similar up to 2015 (Figure 11). However, its economy became more specialised and dissimilar to the national structure in output terms until 1983, after which its economic structure converged to become more like the British picture through until the late 1990s. A further round of increased output specialisation is evident from the late 1990s into the early 2000s before Glasgow experienced further decreases and growing similarity with the national economic structure through the rest of the decade. Output specialisation increased and then fell around the crisis and recession. Employment structure in Glasgow was relatively similar to national levels in the early 1970s and has become more similar up to 2015. It became more similar from the late 1970s to the early 1990s. Some peaks of dissimilarity and relatively greater specialisation are evident through the 1990s and 2000s. The change in economic structure has been shaped by deindustrialisation and transition towards a service-based economy.

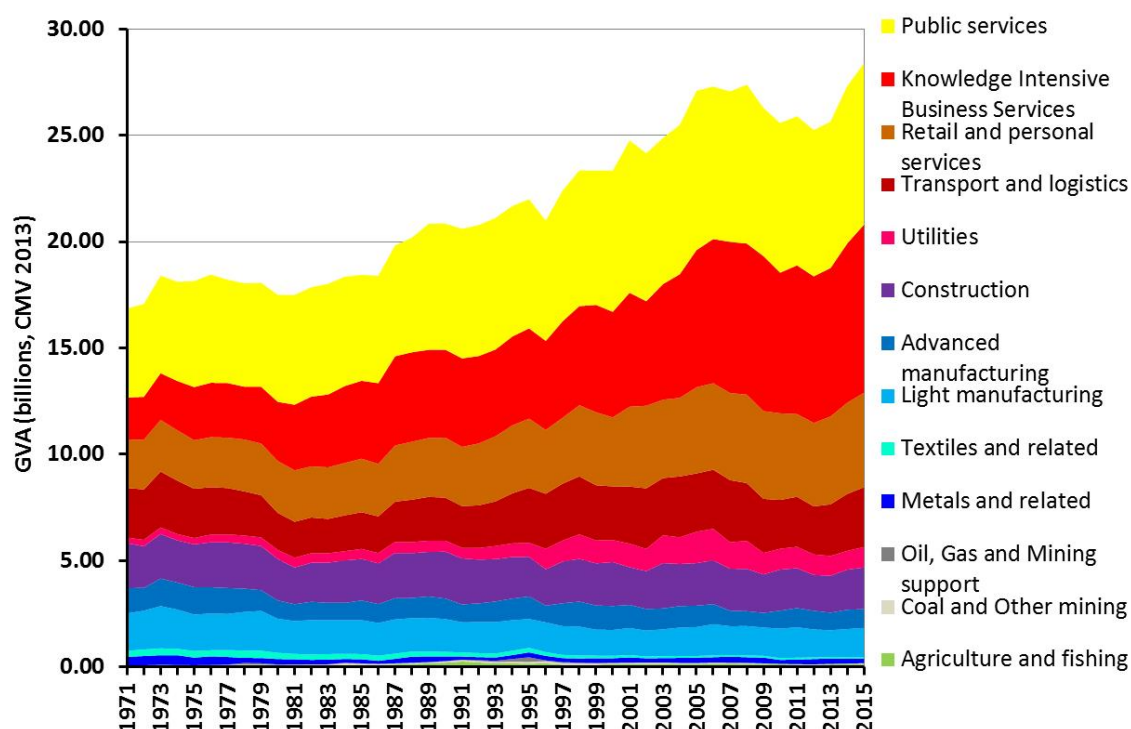
Figure 11: Krugman Indices of Specialisation in Glasgow, 1971-2015



Source: Cambridge Econometrics data constructed for the ESRC 'Structural Transformation, Adaptability, and City Economic Evolutions' project

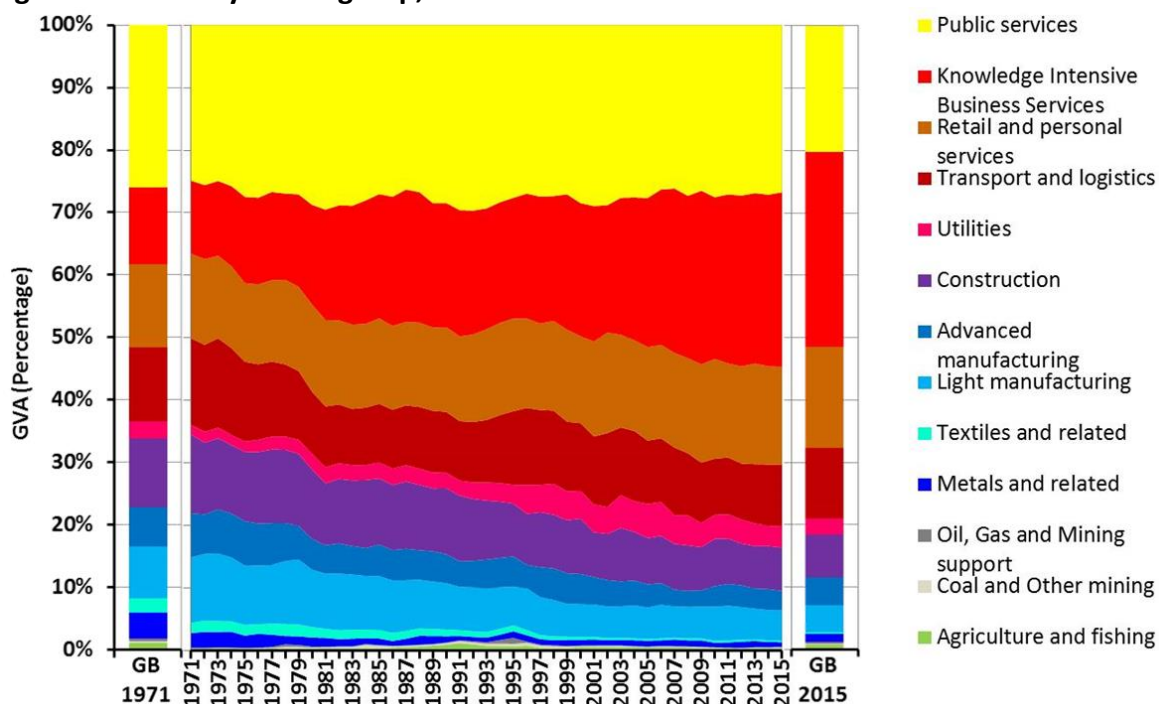
In the early 1970s, GVA in Glasgow was generated in a range of sectors in manufacturing (metals and related, textiles and related, light and high tech manufacturing), private services (transport and logistics, retail and personal services, knowledge intensive business services), public services and construction (Figures 12 and 13). By 2014, given the underlying structural change and de-industrialisation of the city's economy, the contributions to GVA had shifted. The largest growth was in knowledge intensive business services alongside expansions in public services and retail and personal services, although the KIBS growth was weaker than in some other British cities. Utilities provided a slightly larger contribution while construction has broadly maintained its share. High tech and light manufacturing have exhibited modest declines while the contributions of textiles and related and metals and related have fallen.

Figure 12: GVA by sector, Glasgow, 1971-2015



Source: Cambridge Econometrics data constructed for the ESRC 'Structural Transformation, Adaptability, and City Economic Evolutions' project

Figure 13: GVA by sector group, 1971-2015

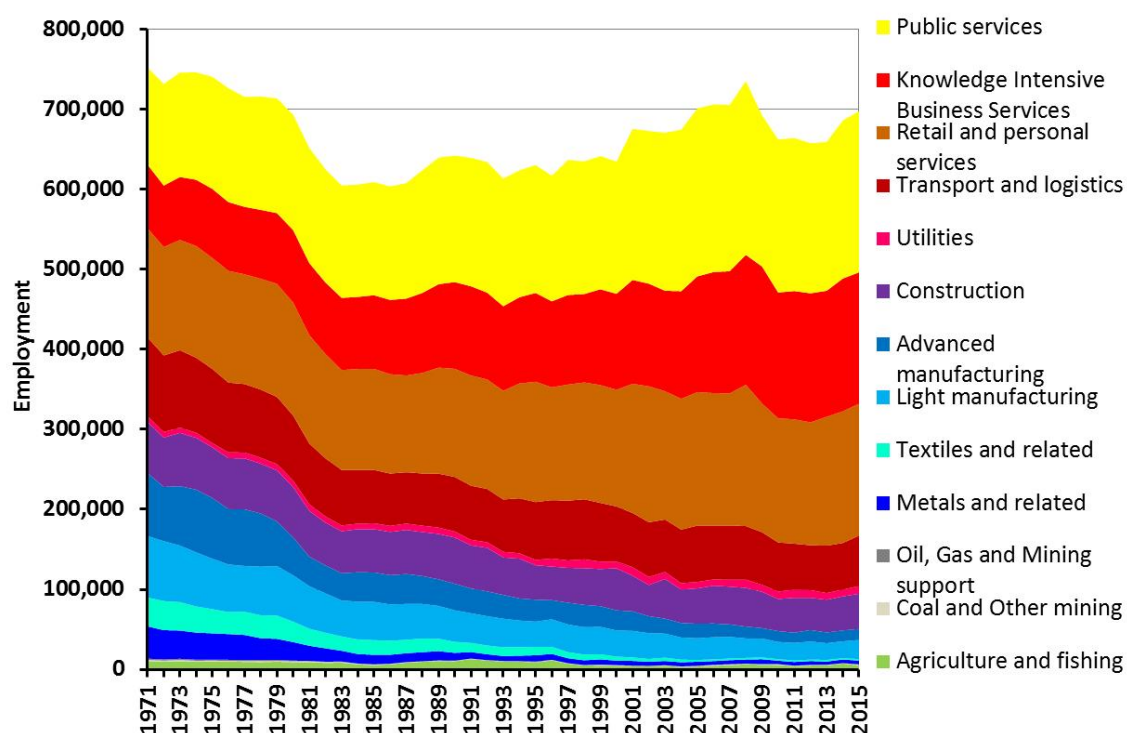


Source: Cambridge Econometrics data constructed for the ESRC 'Structural Transformation, Adaptability, and City Economic Evolutions' project

In the early 1970s, employment in the city economy was spread across a range of sectors with notable proportions in manufacturing (metals and related, textiles and related, light and high tech manufacturing), private services (transport and logistics, retail and personal services, knowledge intensive business services), public services and construction (Figures 14 and 15). Glasgow experienced de-industrialisation and a prolonged employment shake-out in manufacturing in the decades *before* the early 1970s. This meant manufacturing remained an important but relatively smaller and shrinking part of the city economy because the ‘tertiarisation’ and shift to a post-industrial service economy was already underway by the early 1970s (see Figure 4). By 2014, the structure of employment in Glasgow had changed with significant growth in knowledge intensive business services, retail and personal services and public services, and modest growth in utilities. Transport and logistics and construction experienced some limited decline. The largest declines in employment were in high tech manufacturing, light manufacturing, textiles and related, and metals and related sectors.

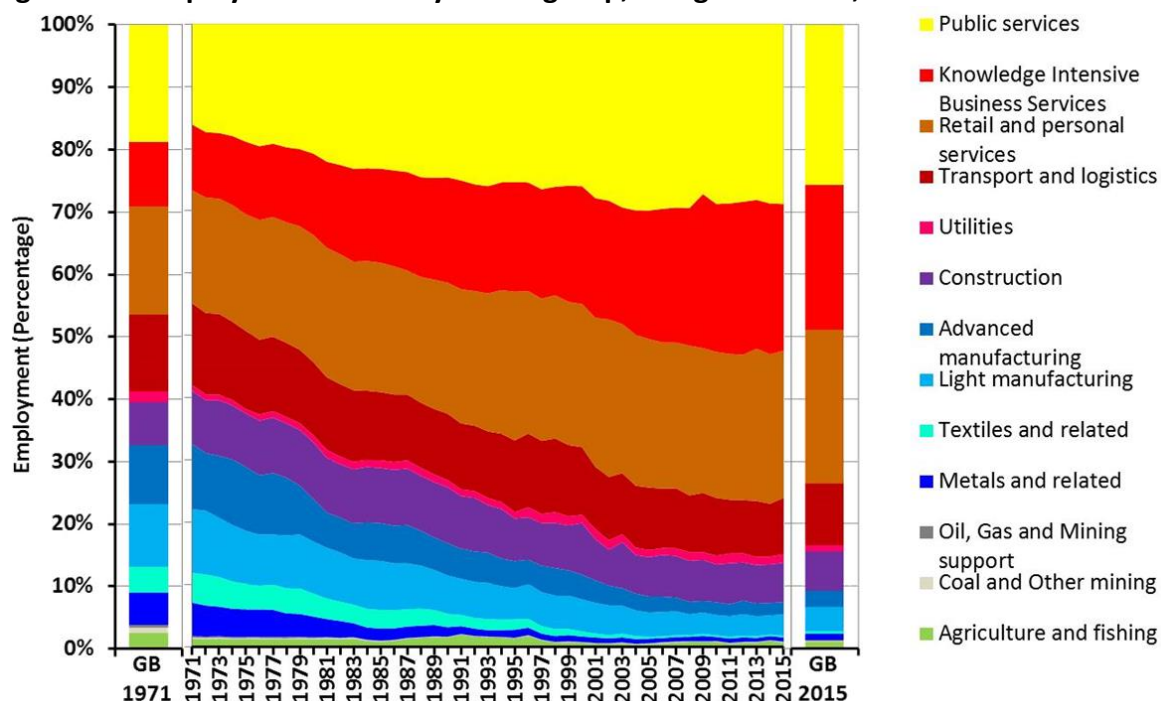
Since the early 1970s, the Glasgow economy has become more specialised in a range of knowledge intensive business services, retail and personal services and public services – each of which account for growing proportions of employment and GVA. While utilities, construction and manufacturing are still important parts of the city economy they have become relatively less important in employment and GVA terms than the growing service sectors since the early 1970s. Manufacturing sectors have experienced sharper falls in employment than output, reflecting productivity increases. Knowledge intensive business services dominate contributions to output due to their higher productivity, while the more labour intensive public and retail and personal services match them in terms of share of employment. Over the period, the story is one of “the transition from Glasgow the industrial city to Glasgow the service centre” (Pacione 2009: 149), albeit not as strong a transition as that experienced in other British cities.

Figure 14: Employment by sector, Glasgow, 1971-2014



Source: Cambridge Econometrics data constructed for the ESRC 'Structural Transformation, Adaptability, and City Economic Evolutions' project

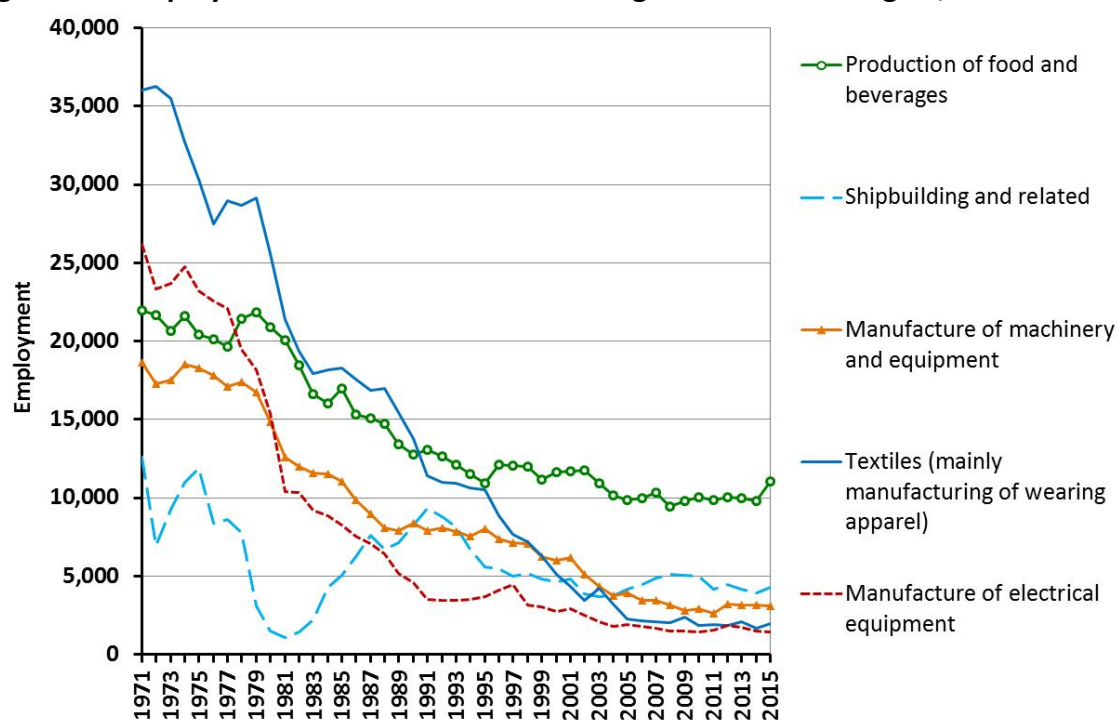
Figure 15: Employment shares by sector group, Glasgow and GB, 1971-2015



Source: Cambridge Econometrics data constructed for the ESRC 'Structural Transformation, Adaptability, and City Economic Evolutions' project

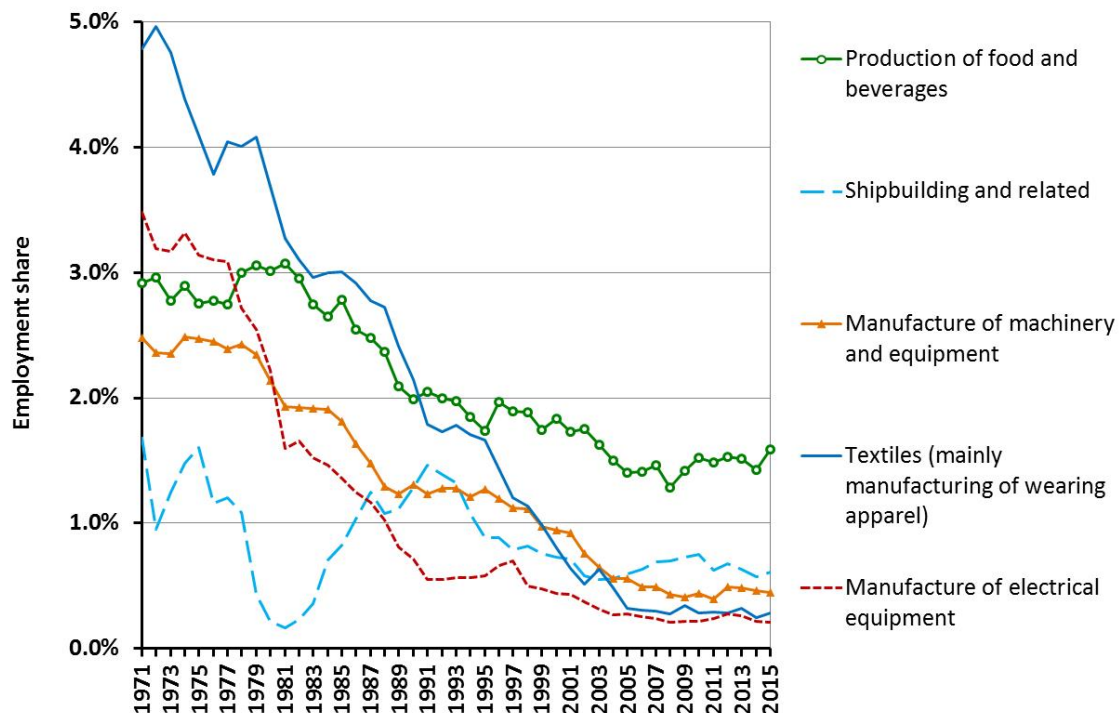
In terms of absolute and relative employment change by sector in manufacturing since 1971, the general picture is one of decline caused by deindustrialisation differentiated by sector. Textiles was the largest sector and experienced the sharpest employment collapse (Figures 16 and 17). Electrical equipment was a sizeable sector which experienced a dramatic contraction too. Food and beverages and machinery and equipment manufacture underwent more drawn out declines through the 1980s and 1990s, with food and beverages stabilising and growing in the 2000s. Demonstrating its lumpy and large often defence-related contract-based nature, shipbuilding and related employment continued a sharp decline from the 1950s and 1960s into the early 1970s but then grew before further dramatic collapse in the early 1980s, growth through to the early 1990s, and slower decline into the 2000s – including a rally in the late 2000s.

Figure 16: Employment in selected manufacturing industries in Glasgow, 1971-2015



Source: Cambridge Econometrics data constructed for the ESRC 'Structural Transformation, Adaptability, and City Economic Evolutions' project

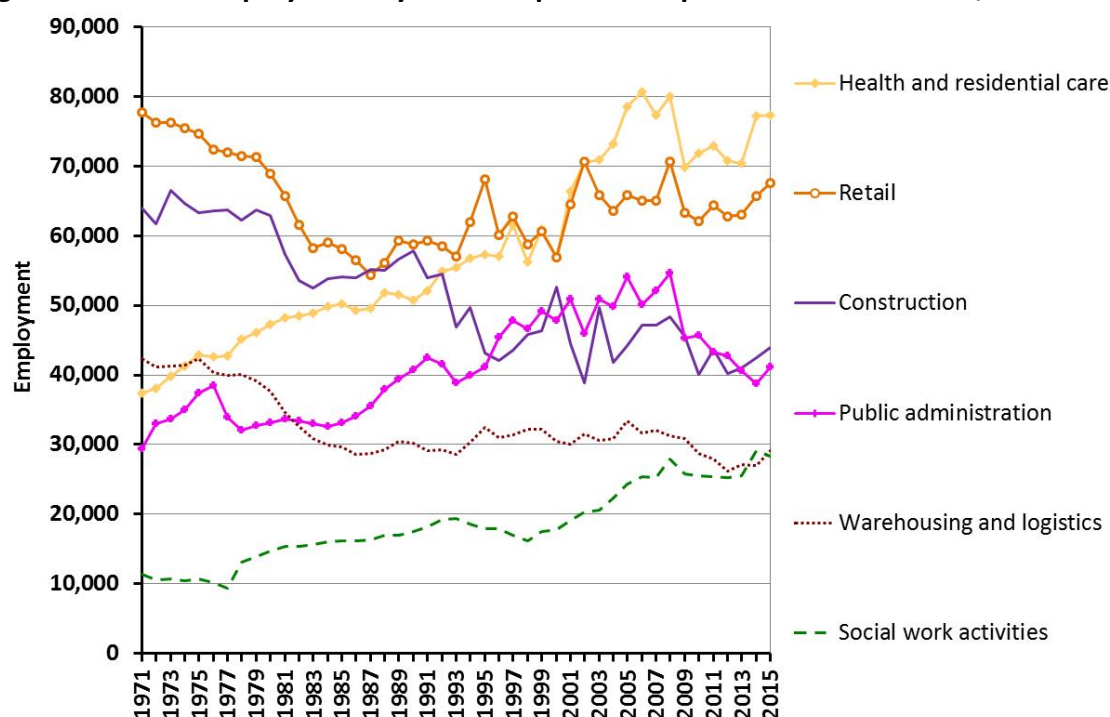
Figure 17: Employment shares in selected manufacturing industries in Glasgow, 1971-2015



Source: Cambridge Econometrics data constructed for the ESRC 'Structural Transformation, Adaptability, and City Economic Evolutions' project

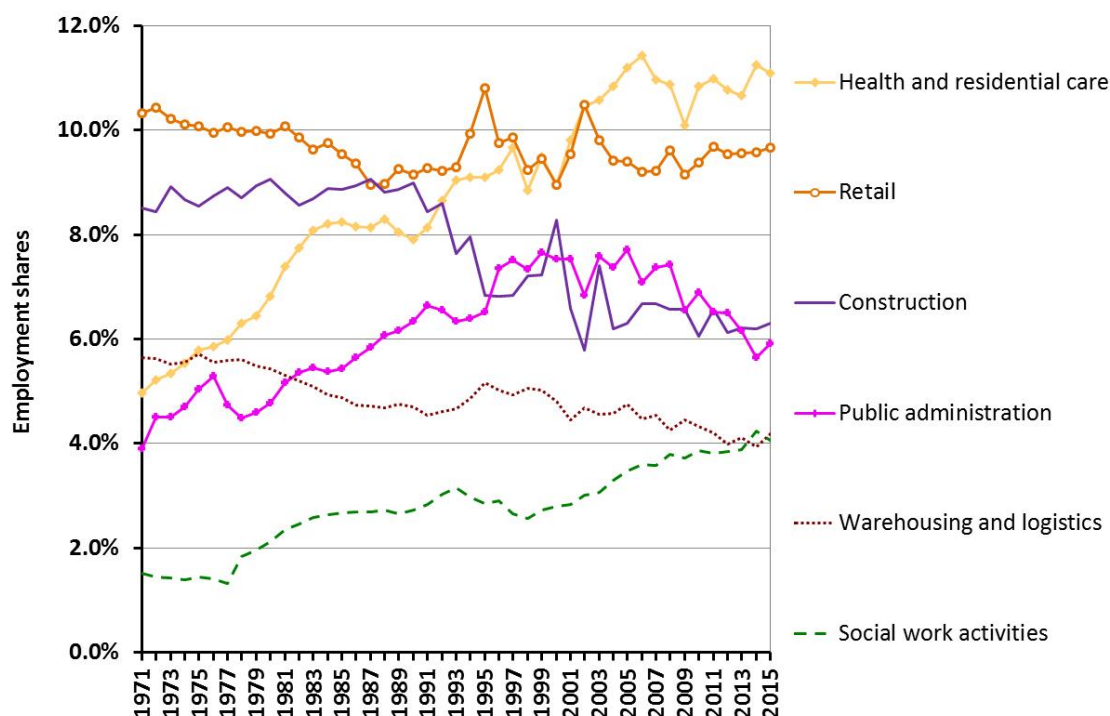
Amidst the general picture of employment growth in services underpinned by the shift towards a service economy, sectoral pathways have exhibited some differentiation. Health and residential care has demonstrated the largest growth displacing retail as the largest employment service sector (Figure 18 and 19). Retail has undergone a fall and rise between 1971 and 2015, regaining early 1980s employment levels. Social work has grown steadily over the period, more than doubling in size. Construction has experienced a significant decline, marked by booms and slumps in employment especially through the 2000s. Public administration rose the early 1970s, before a sharp fall, and then continued to grow until the 2008 crisis and deep contraction. Warehousing and logistics fell through the 1970s into the early 1980s but has since stabilised, despite a reduction around the crisis and recession from 2008.

Figure 18: Total employment by selected public and private service sectors, 1971-2015



Source: Cambridge Econometrics data constructed for the ESRC 'Structural Transformation, Adaptability, and City Economic Evolutions' project

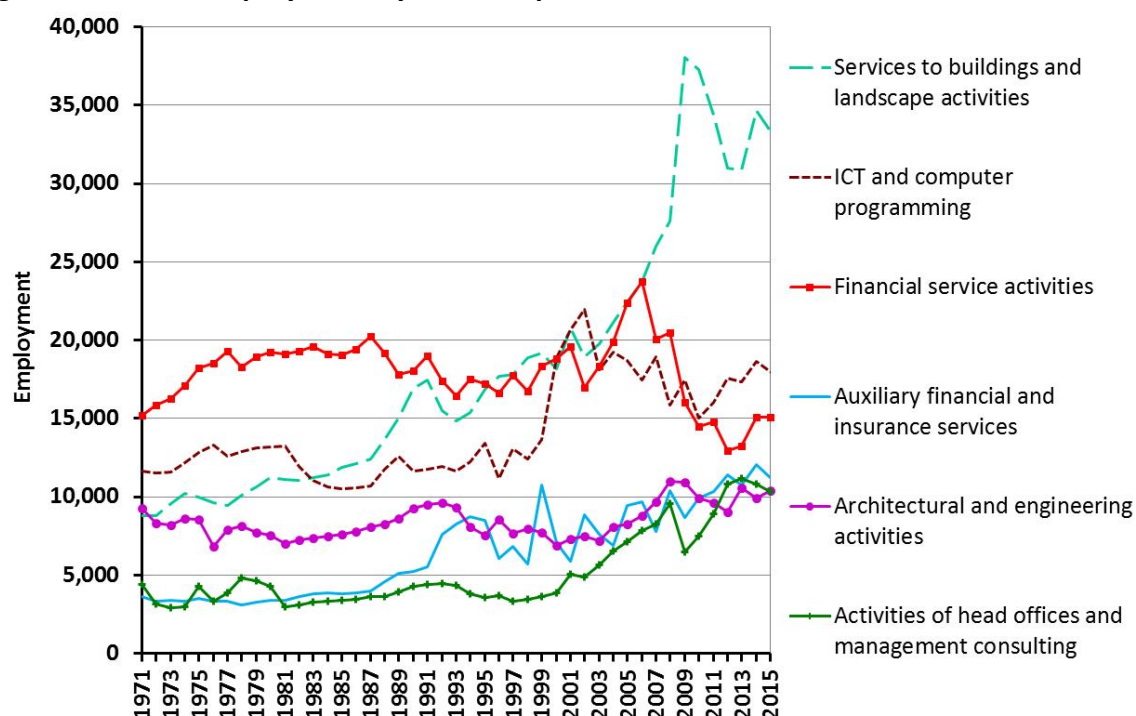
Figure 19: Employment shares by selected public and private service sectors, 1971-2015



Source: Cambridge Econometrics data constructed for the ESRC 'Structural Transformation, Adaptability, and City Economic Evolutions' project

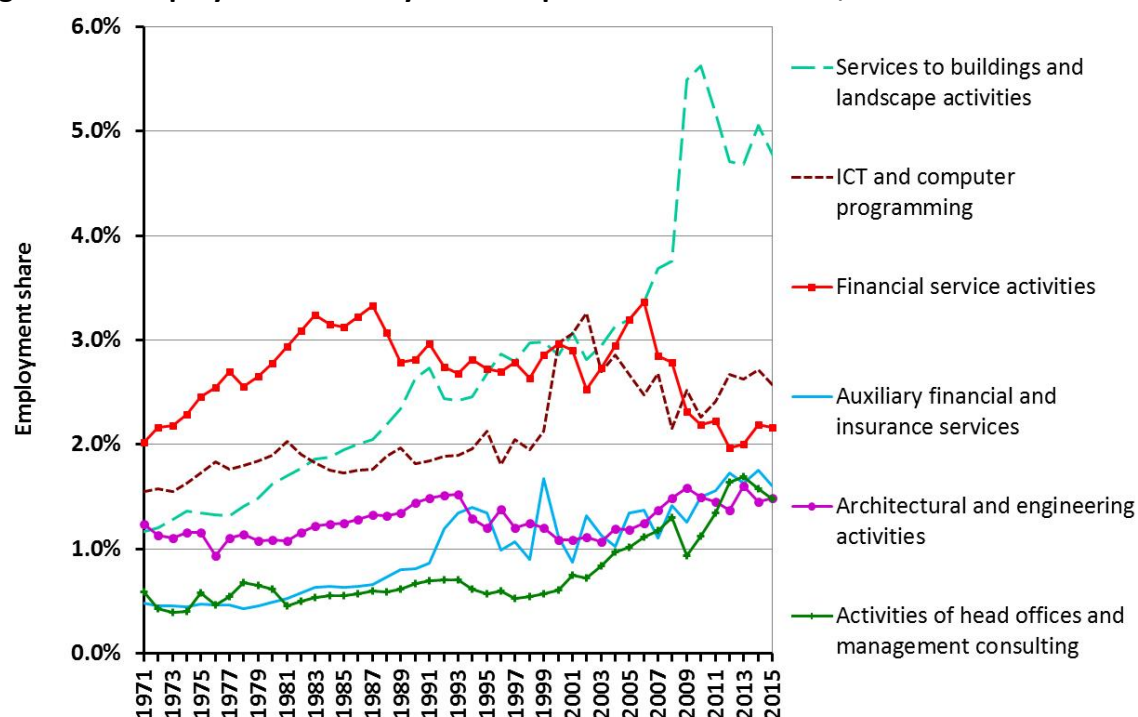
In terms of the private services sector, the differential performance of key sectors is apparent (Figures 19 and 20). Buildings services and landscape activities exhibit stand out growth up to the peak of the crisis in 2008. Financial services were the largest employment sector until the mid-1990s, experiencing strong growth to the mid-2000s, followed by a sharp decline and limited recovery from 2011. ICT and computer programming was relatively stable before a dramatic burst of growth in the late 1990s and early 2000s, before declining through the 2000s and recovering since the crisis. Architectural and engineering activities have remained significant, growing steadily through the 1980s, falling in the early 1990s and then recovering through the 2000s. Auxiliary financial and insurance services have grown from the late 1980s, going through several booms and busts from the early 1990s. Head office activities and management consulting have followed a similar path of steady growth, expanding from the late 1990s.

Figure 19: Total employment by selected private service sectors, 1971-2015



Source: Cambridge Econometrics data constructed for the ESRC 'Structural Transformation, Adaptability, and City Economic Evolutions' project

Figure 20: Employment share by selected private service sectors, 1971-2015

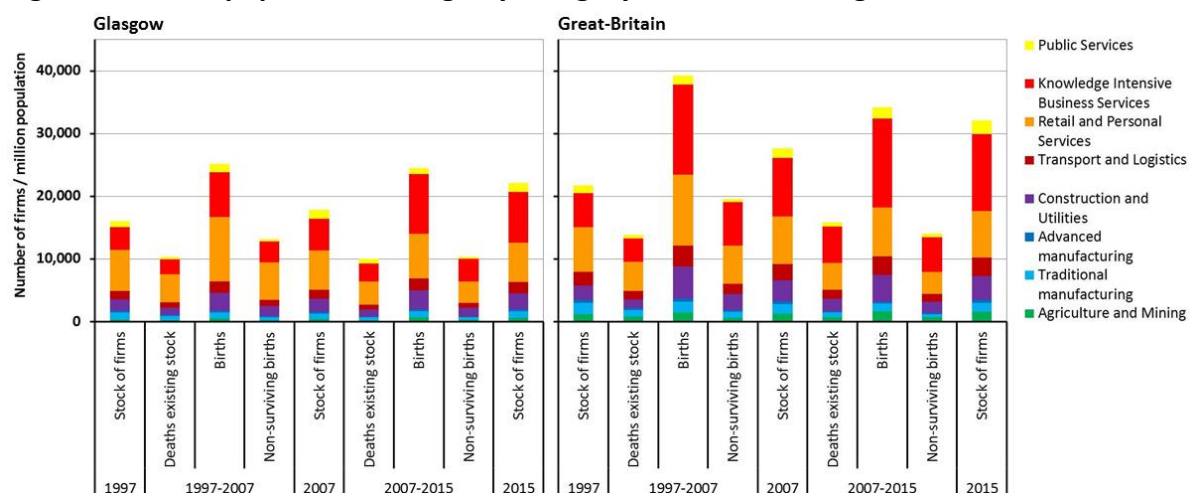


Source: Cambridge Econometrics data constructed for the ESRC 'Structural Transformation, Adaptability, and City Economic Evolutions' project

Firm population dynamics in Glasgow show it has grown its stock of firms, albeit at a lower level in comparison to the national GB expansion between 1997 and 2015 (Figure 21). Glasgow has maintained its level of firm births over the same period, while nationally they have declined. The level of firm deaths has remained constant in Glasgow compared to an increase at the national level. Non-surviving births have fallen in Glasgow in the post-crisis recovery in line with national experience. In sectoral terms, knowledge intensive business services have grown amongst the stock of firms and firm births in Glasgow, mirroring the national picture, while retail and personal services have declined in Glasgow and remained broadly stable nationally. The sectoral spread of deaths amongst the existing stock of firms in Glasgow has remained similar, with only a slight increase in knowledge intensive business service firms in the city compared to a larger increase nationally. Non-surviving births have mostly fallen in retail and personal services in Glasgow and nationally. In Glasgow, the stock of firms with less than 10 employees has grown between 1997 and 2015, following the national trend but at a lower level (Figure 22). While larger firms with more than 10 employees, have declined in Glasgow, again similar to the national trend.

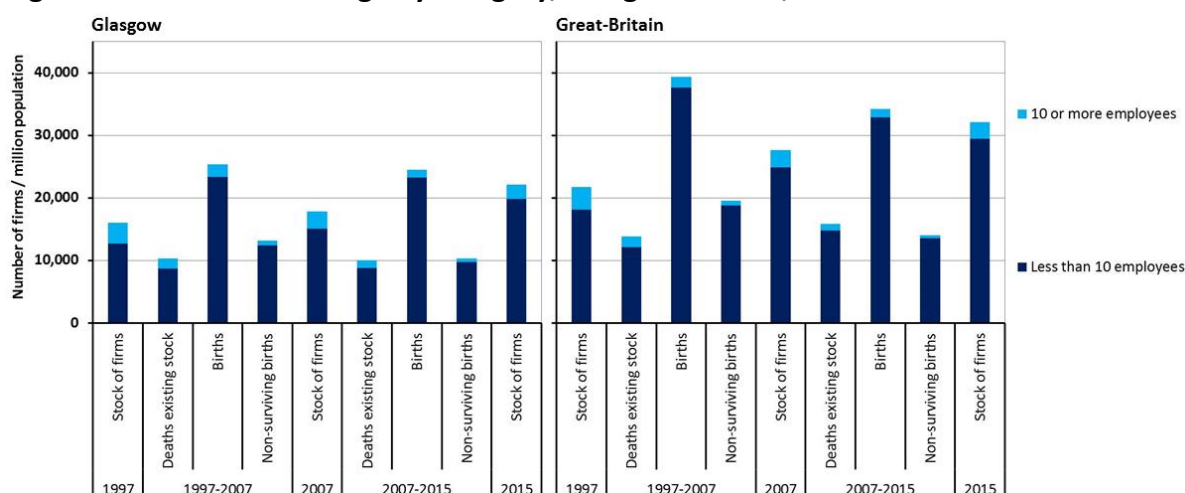
Firm births are relatively stable in Glasgow, with a slight decline in the larger category, compared to a decline in the smaller category nationally. Firms deaths amongst the existing stock are stable in Glasgow, while increasing for larger firms and decreasing for smaller firms nationally. Non-surviving firm births have declined for larger firms in Glasgow and nationally.

Figure 21: Firm population change by category and sector, Glasgow and GB, 1997-2015



Source: ESRC Enterprise Research Centre data constructed for the ESRC 'Structural Transformation, Adaptability, and City Economic Evolutions' project

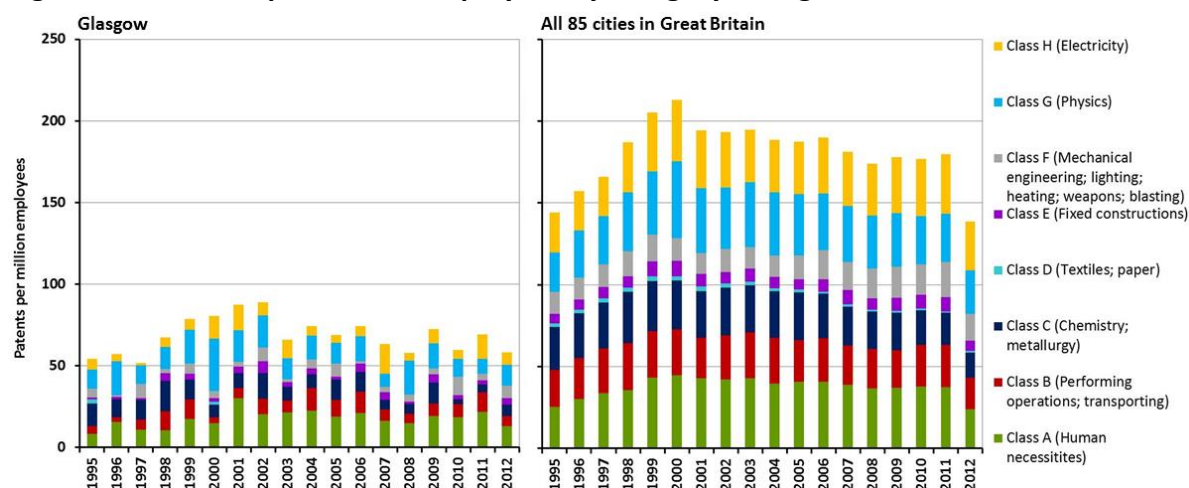
Figure 22: Firm sizes change by category, Glasgow and GB, 1997-2015



Source: ESRC Enterprise Research Centre data constructed for the ESRC 'Structural Transformation, Adaptability, and City Economic Evolutions' project

In terms of innovation, as measured by patents per million employees, Glasgow performs weakly compared to the national picture across all patent types between 1995 and 2012 (Figure 23). Overall patent activity rose through to the early 2000s but has stabilised at a lower level with more volatile performance year to year since 2003. The largest areas of patents match the national level in physics and human necessities.

Figure 23: Patents per million employees by category, Glasgow and GB, 1995-2012

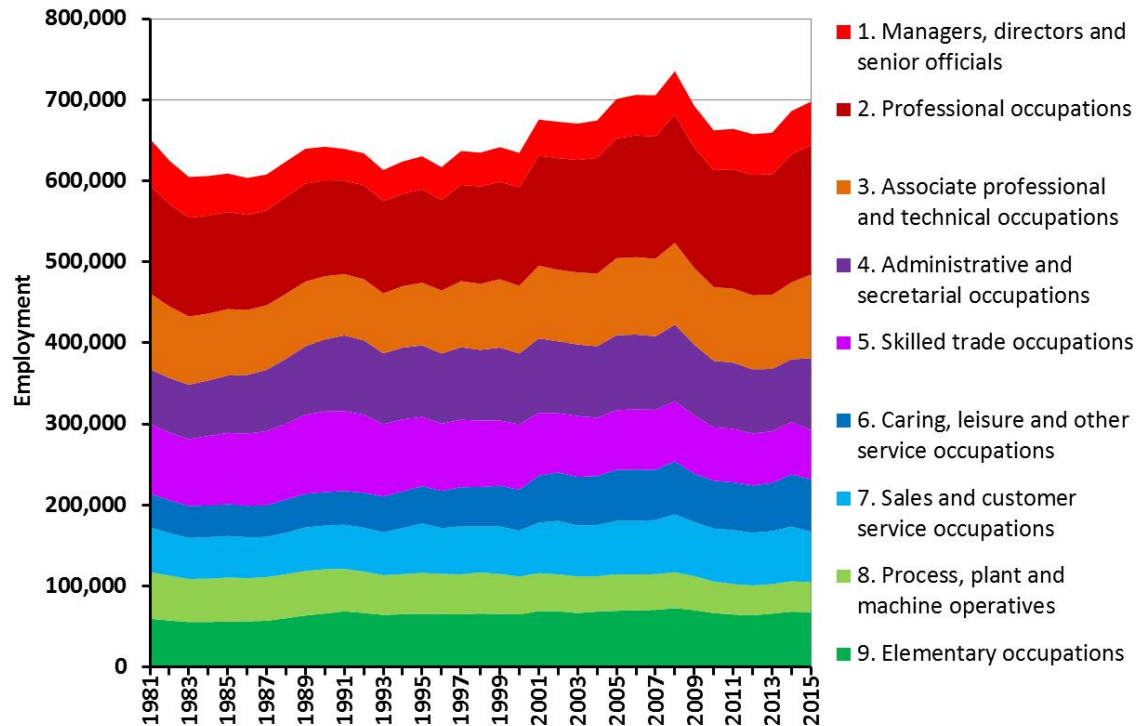


Source: Eurostat

Structural change in the Glasgow economy has reconfigured the occupational profile of the TTWA, increasing the share of occupations at the top and bottom end of the skills distribution. Between 1981 and 2015, in terms of the numbers of occupations, professionals, associate professional and technical, administrative and secretarial, caring, leisure and other service, sales and customer services, and elementary categories have grown (Figure 24). In terms of the share of occupations, there has been a growth in professional, administrative and secretarial, caring, leisure and other service, sales and customer service, and elementary occupations in Glasgow (Figure 25). Declines are evident in skilled trades and process, plant, and machine operatives over the same period. Managers, directors and senior officials, and associate professional and technical have been fairly stable. Compared to the national level, in 2015 Glasgow has a larger proportion in professional, associate professional and technical, administrative and secretarial, and sales and customer service occupations. Lower proportions than the national level are

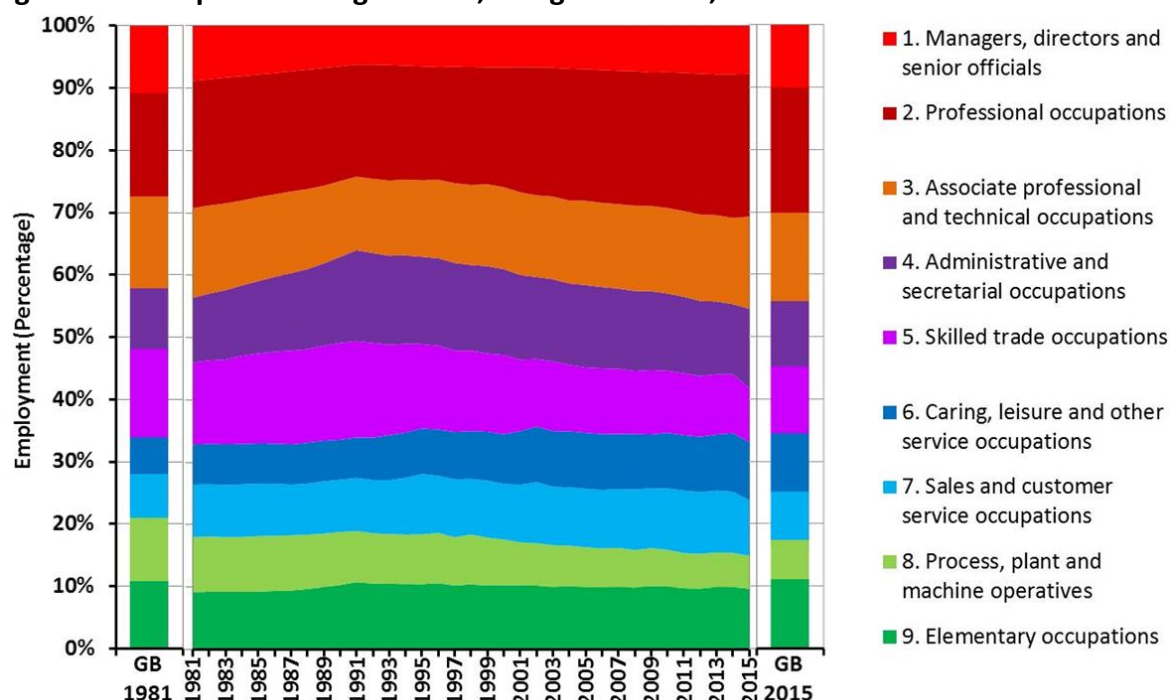
evident in managers, directors and senior officials, and elementary occupations. By 2015, the remaining occupations were broadly in line with the national structure.

Figure 24: Employment change by occupation, Glasgow, 1981-2015



Source: Cambridge Econometrics data constructed for the ESRC 'Structural Transformation, Adaptability, and City Economic Evolutions' project

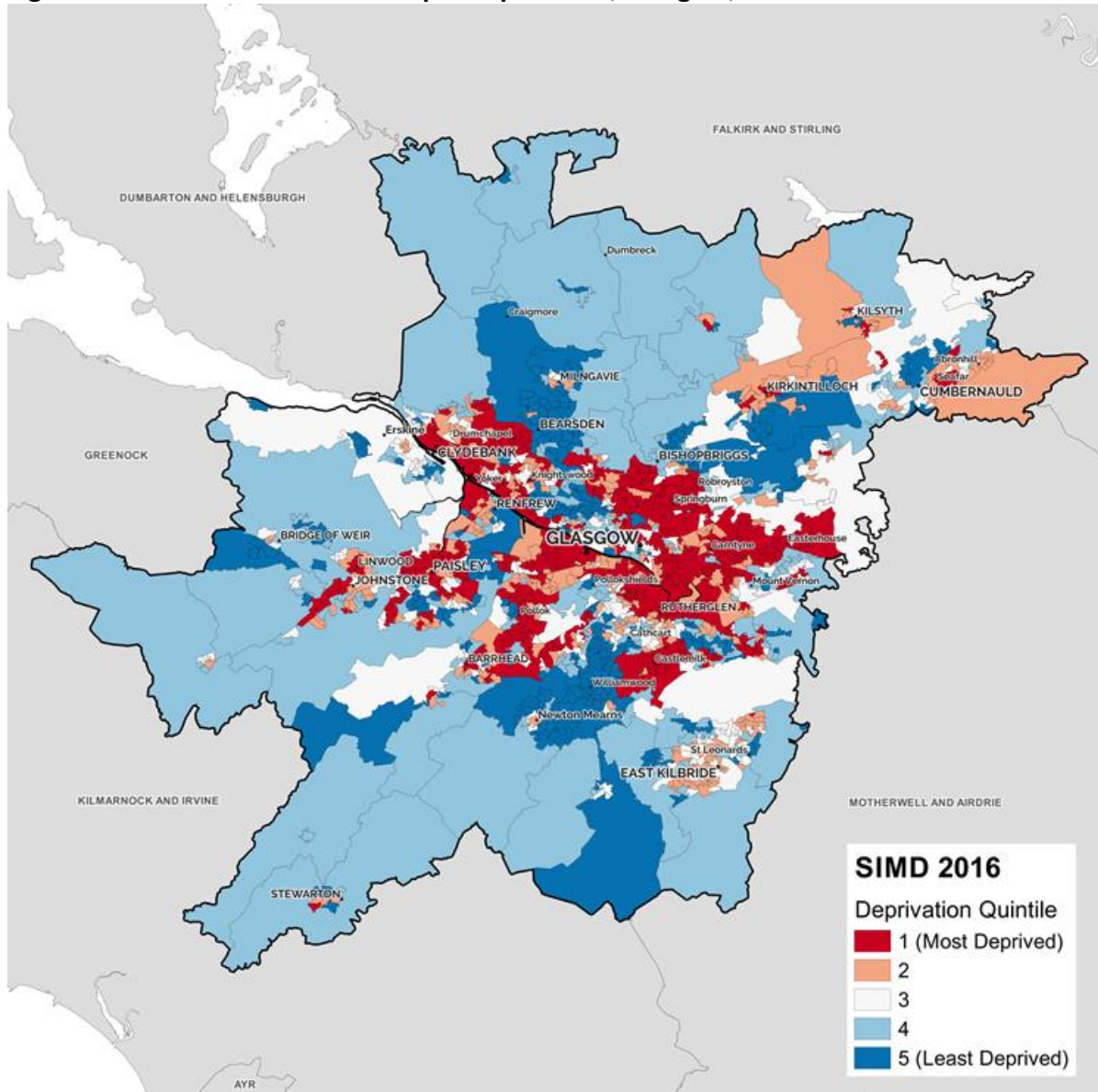
Figure 25: Occupation change shares, Glasgow and GB, 1981-2015



Source: Cambridge Econometrics data constructed for the ESRC ‘Structural Transformation, Adaptability, and City Economic Evolutions’ project

Labour market polarisation, segmentation and hollowing-out have marked Glasgow’s economic evolution and adaptive capacity with social and spatial inequalities. In-work poverty, precarious employment and the concentration of employment opportunities in higher skilled occupations often geographically concentrated in the central city area means the “prospects of upward mobility for less qualified groups have become more restricted” (Turok and Bailey 2004: 141). Entrenched and persistent deprivation is highly localised in across the Glasgow travel to work area (Figure 26). Geographically concentrated decline has left people and places cut off from city centre growth, despite being geographically proximate, and created a legacy of entrenched and severe economic and social problems including deprivation, poverty, worklessness (inactivity and unemployment) and poor health (Pacione 2009, Webster *et al.* 2013).

Figure 26: Scottish Index of Multiple Deprivation, Glasgow, 2016



Source: SIMD by Alasdair Rae, University of Sheffield

The main processes explaining Glasgow's economic evolution are several and closely inter-related. First, large scale, rapid and prolonged deindustrialization generated by the collapse of manufacturing has strongly shaped the economic structure of the city (Arnott 2006, Turok and Bailey 2004, Pacione 2009). Importantly, many of the effects of deindustrialisation impacted upon the city economy in the decades prior to the 1970s. The manufacturing sector was already relatively smaller in employment and GVA terms before the further rounds of deindustrialisation worked their way through in the late 1970s and

early 1980s. Large industrial employers in and around the Glasgow labour market were rationalised, downsized and/or closed such as Beardmore & Co. (Parkhead) and Singer (Clydebank): “diverse industries across Scotland, with life cycles as long as a century and as short as a decade, all falling like ninepins by the end of the 1970s” (Young 2015: 9). The manufacturing sector struggled to adapt through innovation and upgrading amidst wider shifts in technologies, markets and industrial organisation. Lack of strategic decision-making and R&D functions and external ownership beyond Glasgow and Scotland both in private and nationalised industries inhibited adaptation efforts. The focus was mostly limited to the renewal of activities *within* existing industrial specialisms rather than the transformation and diversification *into* new and growing activities in related sectors (Boschma and Iammarino 2009). The remaining manufacturing in Glasgow is relatively advanced, specialised and productive – such as precision engineering by the Howden and Weir Groups. But it is relatively small and with insufficiently strong growth prospects to provide a major boost to employment, productivity and GVA growth in the city. Several larger manufacturing employers have survived, including BAE Systems in Govan and Scotstoun with naval warship specializations but these remain largely dependent upon UK defence spending. Growth in the electronics industry in nearby settlements faltered as the mainstays of Silicon Glen rationalised and closed, relocating to lower cost locations and postponing investments (Young 2015). Brexit is generating profound uncertainties about the UK and Scotland’s wider trading and labour market relationships.

Second, the post-war episode of globalization and the rise of western European, US and then east Asian competition against which firms in Glasgow found it increasingly difficult to compete have accelerated deindustrialisation (Pacione 2009). External demand amongst businesses is dominated by regional (Scotland) and national (UK) markets rather than European or other more international markets which is a “situation...symptomatic of a more service-oriented economy and has changed since the heyday of manufacturing, when exports of steel, ships and engineering products were very significant” (Turok and Bailey 2004: 155). Moreover, Glasgow lacks the critical mass of top-end, export-oriented KIBS.

Third, post-industrial transition and ‘tertiarisation’ have fostered the socially and spatially uneven growth of a particular kind of service-dominated economy in the city. The service economy is concentrated at specific points in the supply chain and certain markets, for example retail and back office functions for financial services and utilities (Research Centre Director, Author’s Interview, 2017). Glasgow city centre’s emergence as a regional service centre has concentrated amenities (e.g. leisure, culture, retail and sports) and generated particular levels and kinds of lower-end service jobs while city-regional, regional and national (Scotland) service functions (e.g. FE, HE, hospitals, utilities and business services) have created higher-end service sector jobs (Arnott 2006, Turok and Bailey 2004). Increased levels of public expenditure during the UK New Labour governments in the 2000s in particular supported the growth of employment and GVA. Public administration has grown in particular relative to private services. In common with other British cities, Glasgow’s economic evolution has been shaped by the growth of lower productivity services and their predominance in the city’s economic structure (Martin *et al.* 2016). New and growing sectors that could have assisted the adaptation of the Glasgow economy – such as electronics sub-assembly, chemicals and some services – were either moving out or establishing outside the city on industrial and commercial sites in adjacent local authority areas and new commuting patterns were emerging amongst workers taking up jobs in Glasgow city centre (Arnott 2006). A “fatalism” about the traditional industries was evident and they were considered “doomed to die” rather than the objects of sectoral recovery and survival strategies (Academic, Author’s Interview, 2017). Amidst the fire-fighting of large scale closures in manufacturing, limited efforts were made to connect engineering and manufacturing skills freed up in Glasgow and the west of Scotland with the emergence and growth of oil and gas in the east of Scotland centred on Aberdeen from the late 1970s.

A strong element of Glasgow’s employment and GVA growth has been based upon knowledge intensive business services, particularly the expansion of a specialisation in financial services – with associated spinoffs for software, advertising and other business services – and mobile phone and utility support call centres (Turok and Bailey 2004). The growth and adaptation of financial services in Glasgow has been supported by favourable conditions including: the history of financial services; distinct Scottish legal and financial

systems; pool of skilled labour and entrepreneurs; urban transport infrastructure and especially suburban rail network; sizeable workforce; telecommunications networks; and, commercial property availability and effective intermediaries (Turok and Bailey 2004). Stimulated by industry association Scottish Financial Enterprise seeking 'borrowed size' to enable the sector to expand outside its traditional centre in Edinburgh and telecommunications corporate BT looking to stimulate demand for broadband services, Scottish Enterprise Glasgow and Glasgow City Council established a new International Financial Services District at the Broomielaw in the early 2000s (Turok and Bailey 2004). However, specialization in financial services – albeit with lower sunk costs and legacies in terms of capital, labour and institutions than the previous industrial era in the city's economic base – still risks disruption. Multiple issues include innovation in automated financial technologies ('fintech') and information and communication technologies, consolidation uncertainty and geopolitical shifts in market access and relocations in the wake of the UK EU referendum and 'Brexit' process, intensified competition from other urban financial centres in the UK and beyond, and consolidation and changes in corporate ownership and organization as well as state regulation following the global financial crisis and economic downturn (Glasgow Chamber of Commerce, Glasgow Economic Leadership and Glasgow City Council 2016).

Although contributing positively to much needed new job creation, concerns have emerged about the quality of service sector employment. Issues are based on the low value-added and low productivity nature of service activities and functions with limited managerial roles or technical responsibilities with potential for upgrading and career progression and their footloose and transient nature (Turok and Bailey 2004). Higher value-added and higher productivity service activities have been sought by economic development institutions in business services (accountancy, legal), software, high-technology, biotech, more sophisticated call centres and creative industries including design, music and media such as TV, newspapers and film (Turok and Bailey 2004). Recent policy efforts have focused upon the digital and creative sectors building upon large anchor institutions such as BBC Scotland, the flow of graduates in technical and creative subjects from Glasgow's higher education institutions, and 'talent' attraction from beyond Glasgow. Yet the potential

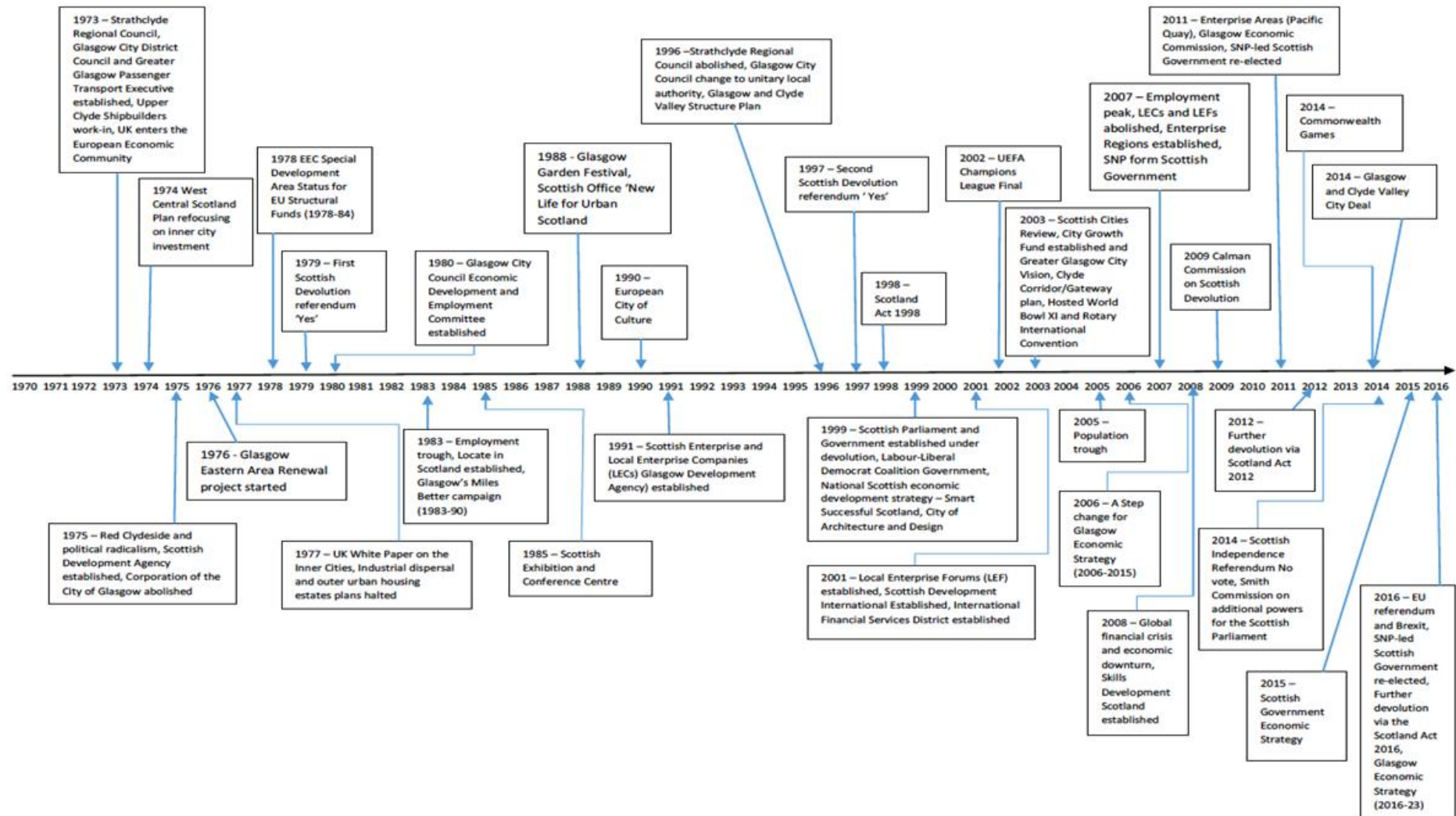
mismatches remain between the types of more advanced service activities and jobs that are being generated and the entrenched and persistent problems of unemployment and deprivation within social groups localised in parts of the city.

Fourth, the geographical centralisation of growing service activities in Glasgow's urban core and the suburbanisation of new manufacturing sectors and service activities and housing in local authority areas outside the city has been proceeding since the 1980s (Lever and Mather 1986). Glasgow's position within the functional economic area has been reshaped, stoked by emergent competition within the wider city-region and central belt from new and expanded employment and housing developments in Braehead, East Kilbride, Glasgow Fort, Cumbernauld and Ravenscraig from the 2000s.

Fifth, given the substantive role of public sector services in the city and its growth since the early 1970s, the dismantling and reform of the redistribution and welfarism of the 'spatial Keynesianism' (Martin and Sunley 1997) of the post-war period has been felt acutely in Glasgow. The city remains over-represented relative to the national level in the public sector including public administration, health and higher education shaped by growth for demographic and political rather than economic reasons (Turok and Bailey 2004). The substantial public sector left Glasgow vulnerable with the onset of post-2010 austerity and constraints on public expenditure and investment, albeit relatively shielded to date by the Scottish Government's particular approach with less pronounced and slower reductions.

The key events and developments in the structural economic change, evolution and adaptation of Glasgow are outlined in Figure 27 below.

Figure 27: Key events in Glasgow's economic evolution since 1970



Source: Various sources especially Mooney and McGrail (2016)

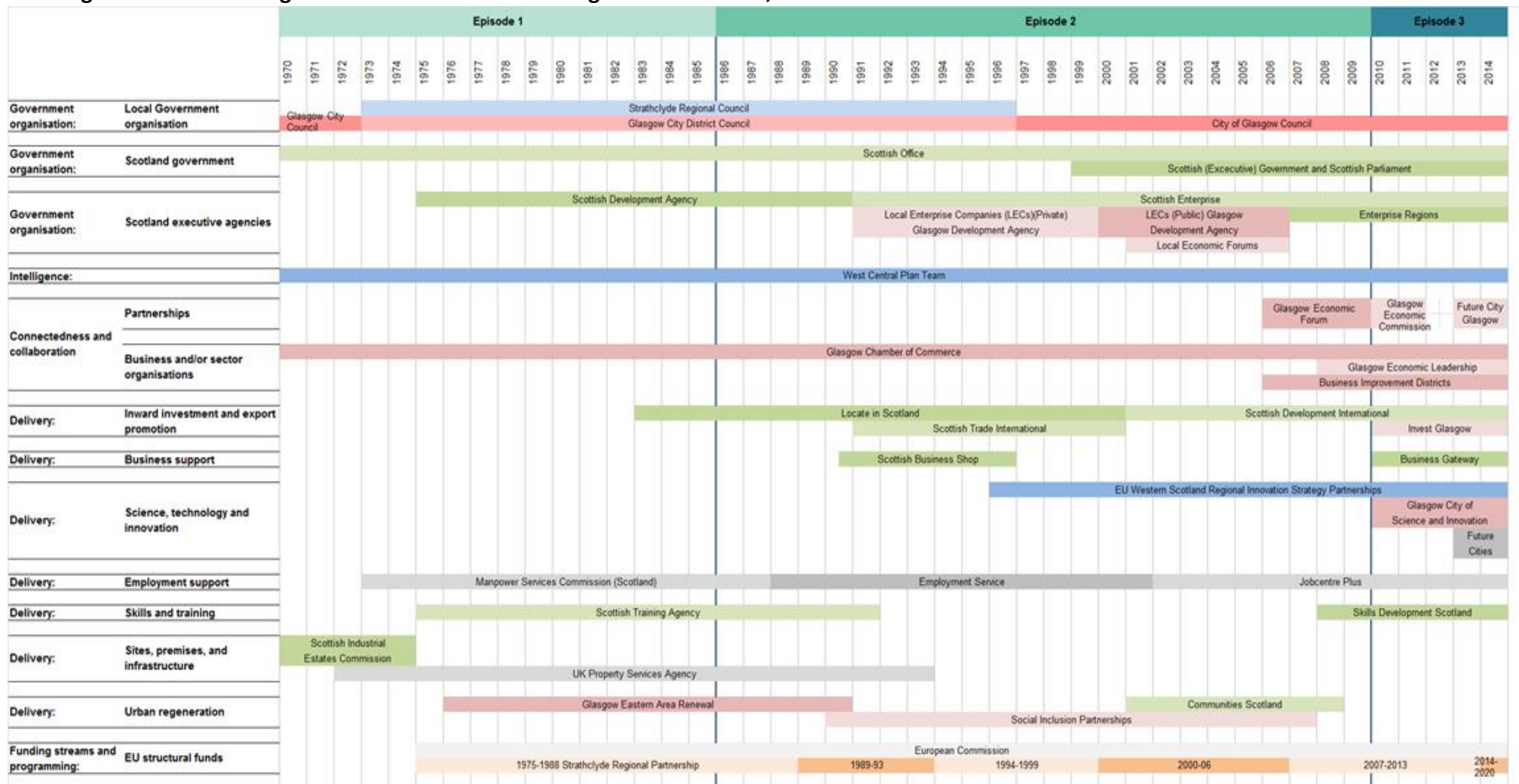
From the early 1970s, Glasgow continued its economic decline until the low point of the early to mid-1980s (Figure 2). The city has since experienced a slow and drawn out economic revival disrupted by the shock of the global financial crisis and economic downturn in 2008 followed by a weak recovery up to 2014. Over time, Glasgow's economy has experienced relatively weak employment recoveries and benefits from the cyclical upturns in national economic conditions, raising questions about the national to city level economic transmission mechanisms. Job generation during boom years is limited and unable to transform the trajectory of sharp employment decline and the shrinking labour market during slumps. This situation suggests employment growth is fragile and readily and adversely affected by shocks and downturns. The city economy appears to have relatively limited resilience and adaptive capacity (Audas and MacKay 2010).

5 Development of institutional arrangements

The evolution of the institutional arrangements for economic development in Glasgow can be divided into three broad episodes (Figure 28), each broadly matching and lagging the main periods of economic change. **Episode 1 is characterised by regionalism and sub-regionalism from the early 1970s to the mid-1980s.** The institutional arrangements were mainly local authority-led, broadly-based, multi-purpose, regional and sub-regional and based upon integrated co-ordination frameworks. Economic development institutions and their working practices were shaped by Scotland's corporatist administrative ethos, culture and history (Local Authority Official, Author's Interview, 2017). Key institutions during this period were Strathclyde and Glasgow local authorities, Scottish Development Agency (SDA), the Scottish Office, and the European Commission. Strathclyde Regional Council, in particular, was key given its size, specialist functions and staff, and leading role in Scotland and wider European regionalism. Its focus upon the wider functional economic area surrounding Glasgow was pioneering at the time. Confronting the scale, pace and prolonged nature of de-industrialisation in the city of Glasgow, the Clydeside sub-region and Strathclyde region, the institutions sought to develop comprehensive development strategies and policy interventions in an attempt to co-ordinate and manage structural

economic change and support economic transition to the service-based economy. The scale and nature of economic change meant public sector leadership, co-ordination and integration was critical in “seeking to synthesize public and private resources and notions of public intervention and market forces...based on the belief that centralized statist or fragmented market strategies are inappropriate to the complex problems facing Clydeside. A multi-faceted approach is required if the transition is to be handled successfully” (Moore and Booth 1986: 64).

Figure 28: Economic governance institutions in Glasgow and Scotland, 1970-2014*



* Grey indicates entities (controlled) at national level, green at the Scottish level, blue at a (city-)region level, and red at a local level.

Source: Various including Scottish Government (2008)

Local authorities led initially and then worked in concert with the Scottish Development Agency. The Glasgow Eastern Area Renewal (GEAR) initiative pioneered the model of multi-agency partnership working involving Strathclyde Regional Council, Glasgow District Council, SDA, Scottish Special Housing Association, Housing Corporation, Greater Glasgow Health Board and other agencies.

Created by the Labour government to head-off nationalist sentiment after the first Scottish independence referendum in the early 1970s, the SDA was established in the mid-1970s. The design of the SDA was informed by the West Central Scotland Plan Team and the European RDA model as a broadly-based institution with powers and resources across the economic development realm. Incorporating many of the existing functions from older institutions (e.g. Scottish Industrial Estates Commission)(Lever 1986), the SDA was responsible for developing the lowland Scottish economy using financial assistance to business, direct provision of industrial infrastructure and urban environmental improvement with local authorities and sectoral strategies and industrial estates. SDA became the lead economic development and policymaking organisation at the lowland Scotland level and engaged in partnership working with local authorities (Halkier 2006). It followed an interventionist model, for example it was central in a rescue package for Weir Group in 1981 (Young 2015). A linked agency, Locate in Scotland, was established with a Scotland-wide focus in 1983 to attract inward investment for the re-industrialisation of the Scottish economy.

By the mid-1980s, the SDA had shifted its focus to the promotion of private industry and away from its direct interventionist and ownership roles. SDA co-ordinated with the Scottish Office as the conduit with UK government departments given the limited devolution to Scotland at the time. EU regional policy played a role with its broad-based regional partnerships and multi-year regional programmes focused on economic, social and environmental objectives in supporting hard infrastructure investment, industrial site reclamation and development (Danson *et al.* 1999). Greater private sector involvement and institutionalisation began with Glasgow Action from the mid-1980s. Glasgow had suffered from the lack of industrial leadership since the 1930s and had no cadre of strong and

innovative business leaders which hampered the adaptability of the city's economy. This situation was exacerbated by increased reliance upon overseas and mobile expertise and investment through the new waves of FDI.

The regional and sub-regional focus of Episode 1 shaped the evolution of structural economic change in Glasgow through attempting to situate the city within its wider functional economic area and contain the suburbanisation of growth generated by deindustrialisation, re-industrialisation and transition to a service-dominated economy. Institutions were central to shaping the path of structural economic change in rejecting the strategy of restructuring and modernizing the existing industries to facilitate new growth due to perceptions of their limited growth potential and lack of investment capital. The alternative strategy was pursued to "cut them down to scale to suit new markets and replace lost production and employment with an infusion of new industries. This policy framework effectively established the pattern for industrial development in Glasgow for the remainder of the century" (Pacione 2009: 150).

Episode 2 is marked by a focus upon city-level localism between 1985-2009. The institutional framework during this period was characterised by leadership and partnership of the local authority with other public, quasi-public and private entities focused upon specialised and narrower functional and localised territorial (city and intra-city level) remits working within relatively more fragmented, streamlined and less well-resourced structures. Scottish Enterprise was created in 1991 from the merger and integration of the SDA and Scottish Training Agency with a lowland Scotland remit alongside a network of 12 private sector-led Local Enterprise Companies (LECs). The shift in institutional arrangements was from an accountable local authority-led to a localised and business-led quasi-autonomous non-governmental organisation (quango). The focus moved too from an economic and social regeneration to a business support approach emphasising enterprise and innovation (Young 2015). The Glasgow Development Agency (GDA) was the LEC for the city with a strategy to accelerate post-industrial transition via a city-centre focused emphasis upon public-private partnership for property-led regeneration, place marketing, cultural industries promotion, enterprise, innovation, business investment and training. GDA's

strategy was informed by strategic analysis of the economic potential of the city-centre in wider city-regional growth and the need to reposition the city and focus on new industries and areas of growth in both tradeable and non-tradeable services (McKinsey and Company 1985). The private sector leadership of Glasgow Action was important too, underpinning the partnership working. The adjacent LECs to Glasgow in Ayrshire, Lanarkshire and Renfrewshire were all focused on progressing economic development within their areas in competition with Glasgow. This new institutional arrangement fragmented the functional economic area and undermined strategic overview and joint working. With the abolition of Strathclyde Regional Council in 1996, “multi-purpose metropolitan councils were removed in favour of streamlined special purpose agencies and single tier authorities for smaller areas” (Turok and Bailey 2004: 144). Fragmentation and lost skills, scale and overarching powers resulted from SRC’s demise, although critics argued it was too large and diverse and struggled effectively to match up its different tax and funding structures. The GDA was focused on building confidence over time, improving the image of the city centre and lowering risks for investors through supporting infrastructure investment in transport to defer the onset of diseconomies of congestion, land, rent and wage inflation, poor environmental quality, and constant competition from new commercial business parks in the city suburbs and surrounding settlements (Turok and Bailey 2004).

From 1999, the creation of the Scottish Parliament and Executive with devolved powers and resources brought a substantive new and accountable set of institutions into the frame and a period of hiatus as it became established. The Scottish Government had a Scotland-wide focus, economic development strategy and framework *Smart Successful Scotland* (2004). It struggled to recognise the importance of addressing Glasgow’s role and issues in the west of Scotland given the economic and demographic size of the city and its economic problems in the national Scottish context (University Business Director, Author’s Interview, 2017). Following a cities review in 2003 and City Visions strategies, a city and increasingly city-regional focus on ‘Greater Glasgow’ and its infrastructure as well as its relations through the Central Belt with the Edinburgh city-region emerged. The Scottish Government also supported Glasgow City Council’s housing stock transfer and debt write-off with the creation of the Glasgow Housing Association (Turok and Bailey 2004). LECs were changed

into public bodies and subsidiaries of Scottish Enterprise by the Scottish Executive in 2000 to make them accountable and operate within the legislative framework of the Parliament (Goodwin *et al.* 2002). Scottish Development International investment was created in 2001 from the merger of Scottish Trade International and Locate in Scotland. An economic development review in 2007 led to abolition of the LECs and Local Enterprise Forums (LEFs) and their replacement with 6 Enterprise Regions across Scotland, the centralisation of functions and services within the Scottish Executive, and transfer of responsibility and funding to local authorities through 'single points of contact' (e.g. for Business Gateway and local regeneration services). The aim of the reforms was to better support the national Scottish Government economic strategy and reduce bureaucracy and streamline local delivery. In 2008, skills and training were integrated with the enterprise networks of Scottish Enterprise with Careers Scotland, Scottish University for Industry and learndirect Scotland to create Skills Development Scotland. In the wake of the crisis, the Glasgow Economic Commission was established to inform a new economic strategy for the city with an emphasis upon future wealth generation, investment, diversification and a more strongly sectoral approach connecting with the voice of private sector-led Glasgow Economic Leadership.

During the 2000s, the impact of institutions upon structural economic change was evident in its city-centre and service economy focus but hampered by fragmentation, unclear links between related functions, lack of strategic leadership and limited powers and resources (Markusen 2012, Turok and Bailey 2004). Glasgow's particular legacy of large scale and rapid deindustrialisation left substantial holdings of derelict, vacant and contaminated land challenging to redevelopment plans. Efforts to assemble land and create strategic industrial sites in the late 1990s was limited by lack of resources and key public agencies being focused on other priorities (Gibb 2002). Difficulties were generated too by pressure from housing developers to rezone employment land for housing and incentives to reclassify brownfield industrial sites to capture potential council tax revenue, government subsidies and capital receipts from public land sell-offs (Turok and Bailey 2004).

The most recent and current **Episode 3: City-regionalism, 2010-, is characterised by institutional change at the city-regional (Glasgow and Clyde Valley) level alongside a centralised and national-Scottish orientation.** The Glasgow and Clyde Valley City Deal was agreed between the constituent local authorities, UK and Scottish governments in 2014 and provided powers and resources focused upon infrastructure investments for economic and employment growth (O'Brien and Pike 2016, Waite 2016). It reflects aspirations to upscale governance arrangements for Glasgow city to mirror the emergent model of city-regional governance from England with Combined Authorities (Markusen 2012). At the outset of 2017, a further review of economic development institutions by the Scottish Government is set to report and recommend further integration and streamlining. Given their longer term and infrastructure focus within the wider city region, the most recent institutional arrangements are a work in progress and yet to impact upon the trajectory of structural economic change in the city. Concerns exist, however, about the lack of coherent geographies, institutional responsibilities, and plan, and the proliferation of policy initiatives and under-developed evaluation frameworks.

6 Development of policies

The evolution of policies for economic development in Glasgow broadly mirrors the three main episodes of institutional arrangements (Figure 28). Acute economic, social and environmental problems have meant Glasgow and the West Central Scotland conurbation have been a “laboratory for experimental urban policy” (Lever and Mather 1985: 1). From the early 1970s, there has been a widening of the types of policies deployed, with a stronger emphasis upon enterprise and business support from the 1990s as well as science, technology and innovation policies (Figure 29). In terms of changing emphases within the policy mix, inward investment, training and skills, and events and place branding have grown in importance across the three episodes. While employment support and sites, premises and infrastructure have received relatively less emphasis in the more recent episode.

Figure 29: Summary of types of policy initiatives, Glasgow, 1970-date

	Inward investment / business attraction	Science, Technology, Innovation (STI) policies	Enterprise / business support	Employment support	Training / skills policy	Sites, premises and infrastructure	Urban regeneration	Events and place branding
Episode 1 (1970-1989): <i>Strategic planning in regional and sub-regional framework</i>	•			●	•	•	●	•
Episode 2 (1990-2009): <i>City localism and business-oriented policies</i>	●	•	●	●	●	●	●	●
Episode 3 (2010-date): <i>City-regionalism, coordination and integration</i>	●	●	●	•	●	•	●	●

Source: Author's research

In **Episode 1: Regionalism and sub-regionalism, 1970-1985**, the policies were strategic, planned and redistributive with a geographical focus upon the regional (West Central Scotland) and sub-regional (Clydeside) levels (Figure 28). The focus was on larger scale, broadly based, longer-term and hard/physical infrastructure interventions focused on sites and old industrial site remediation. The evolving policies were important in shaping the structural economic evolution and adaptation of the city economy. Two closely linked policies in the post-war period played a critical role: managed large scale population relocation and industrial dispersal and decentralisation. With the more mobile, younger and skilled population leaving the city in the midst of deindustrialisation, relocating those left behind was seen as a priority to reduce congestion, overcrowding and enable clearance and demolition of low quality housing stock and rebuilding (McCrone 1991). The large scale of public housing in Glasgow meant addressing its deteriorating condition was a major economic issue for the city (MacLennan 2000). In an “internal suburbanisation” (Academic, Author's Interview, 2017), peripheral housing estates were established at Castlemilk, Drumchapel, Easterhouse and Pollock at the edges of the Glasgow city boundaries but with limited economic and social infrastructure. Relocation of population was dovetailed with

the creation of new industrial sites to provide employment opportunities amongst employers relocated from the city and attracted in from Scotland, the UK and beyond. The new job opportunities were attractive to and taken up by the more skilled population leaving Glasgow, leaving the less skilled population in the city stranded alongside its shrinking economic base (University Business Director, Author's Interview, 2017).

Policy priorities were the provision of 'new look' and modern amenities to enable the attraction of inward investment and economic revitalization including from the wave of US electronics multi-nationals Honeywell and IBM. Incentives included regional policy aid, provision of serviced industrial sites and advance factories and basic infrastructure including roads, environmental improvements and 'key worker' housing (Lever 1986). This policy was underpinned by the Scottish Office's then view of Glasgow as "an uncompetitive economic location because of its congested infrastructure, unattractive image, unionised workforce and unresponsive local authority" (Smith and Wannop 1985). This poor image of Glasgow in environment and labour terms motivated later re-branding strategies and policies but were underpinned by declining cost advantages in labour, linkages and transport (Lever 1986). Despite opposition from the Glasgow Corporation, the New Towns Programme was rolled-out with Scottish Office designated green belt and overspill policies to create East Kilbride (1949), Cumbernauld (1956), Livingston (1962) and Irvine (1966) each with their own development corporations. As an example of a strong, sustained and relatively well resourced policy intervention, this decentralisation furthered the momentum of Glasgow City's decline (Slaven 1975, Lever and Moore 1986). The regional focus and especially grant concentration amongst new and expanding firms hastened deindustrialisation and the flight of manufacturing from the inner city to outer areas in Glasgow during this period (Lever 1986). With a mean cost per job created or safeguarded of £35,000 (nominal prices)(Department of Industry 1983), it was estimated that this regional policy helped reduce the unemployment rate in Glasgow for men by 0.5% and 0.4% for women between 1971 and 1977 (Diamond and Spence 1983). This period also included policy interventions focused on Glasgow and infrastructure funded under the European regional policy.

In an important policy shift, the New Towns policy was halted in the early 1980s. This change followed, first, the HM Government (1977) White Paper Policy for the Inner Cities that changed the view of cities from economic liabilities to economic assets. This new approach focused on improving the economic base of cities and regeneration rather than physical demolition and suburban decentralisation. Second, the 1974 West Central Scotland Plan was pivotal in rejecting decentralisation and dispersal and promoting redirection of investment back into the inner city areas (Lever and Moore 1986b). Policies began to shift from traditional regional policy incentives seeking to influence the location of mobile manufacturing from elsewhere in the UK and internationally to more urban-centred policies focused upon services, small firms and less formal enterprises (e.g. community businesses, co-operatives), self-employment and comprehensive regeneration (Lever 1986). SDA focused on new factory provision and refurbishment in priority areas such as GEAR, Clydebank, Motherwell and the Maryhill corridor but struggled to let large and older premises created in the 1950s such as Hillington, Thornlie Bank and Queenslie. The flagship and innovative policy was Glasgow Eastern Area Renewal (GEAR) (Wannop 1990). GEAR was established amidst Scottish Office concerns about the existing local and central government's capacity effectively to tackle the major economic and social problems in Glasgow and Glasgow District and Strathclyde Regional Council's lobbying to reverse the policies of inner city dispersal and new town creation detrimental to Glasgow's inner core (Moore and Booth 1986). GEAR linked economic and social objectives, creating jobs, reducing unemployment and providing training opportunities (Donnison and Middleton 1987).

The overarching aim of development policy was to accelerate the transition towards "a new post-industrial economy" with a key role for the public sector as "managers and co-ordinators of transition" in the private sector given the scale, pace and persistence of economic decline (Moore and Booth 1986a: 62). New approaches and policies augmented rather than replaced the older policies given the extent and nature of Clydeside's "economic malaise" (Lever 1986: 44). A mix of ad hoc and experimental with strategic and planned policies were evident (Lever and Moore 1986b). However, the post-war suburbanization and growth of surrounding local authorities continued to shape Glasgow's

development as an under-bounded administrative area within a city-regional context growing in importance. Tensions were evident in fiscal policy as Glasgow City struggled to maintain central urban amenities and services for increasing numbers of suburban residents living beyond the city's tax base and commuting from places including East Dunbartonshire and East Renfrewshire. The economic geographies of this development pattern and its supporting transport infrastructure tied suburban settlements into Glasgow's economic orbit within the wider city-region.

In **Episode 2: City localism, 1985-2009**, the policy approach shifted towards an ad hoc, experimental and tactical market and business-oriented model with a more local and city-centre (Glasgow) focus with smaller scale, targeted (i.e. by geography, sector and/or enterprise type), shorter term and soft/social infrastructure and supply-side initiatives (e.g. enterprise support, innovation, skills)(Lever and Moore 1986a, Moore and Booth 1986b)(Figure 28). The "traditional equity-based regional policy was scaled back" (Turok and Bailey 2004: 144) during the 1980s. Policy became more market-oriented and based on supply-side interventions with reduced levels of central government expenditure. The rationale and focus moved to fixing market failures, allocating public funds via competition, strengthening urban economies for growth, job creation and competitiveness, encouraging enterprise and entrepreneurship, public sector function attraction, and supporting private investment, private sector-led institutions and initiatives (Hausner 1987, Thornley 1991). Enterprise in particular was promoted with an emphasis upon increased rates of new business start-ups and small firm growth for inner city revitalisation which, for some, was "why Glasgow ended up not being Detroit" (Academic, Author's Interview, 2017). Enterprise Zones were established, for example in areas hit by large scale industrial closures such as Clydebank in adjacent West Dunbartonshire following the 1984 Singer factory closure and loss of 3,000 jobs. Policies sought to provide public subsidies and support for private business to overcome localised constraints including business support, small firm promotion, environmental improvement, financial assistance schemes, training, and provision of smaller scale industrial premises in urban cores (Lever 1986, Moore and Booth 1986b).

The strategic focus on Glasgow city-centre aimed to create policies to support the wider post-industrial transition and growth of existing and new activities in the service sector and consumption-based services through supporting an urban core and associated external economies of agglomeration (McKinsey and Company 1985). Diversity in the service sector was sought – targeting financial services, IT, retail and tourism – to avoid the dependencies and risks of specialisation that marked Glasgow’s heavy industrial history (University Business Director, Author’s Interview, 2017). Policies focused on priority strands including re-industrialisation via FDI, brownfield land redevelopment, urban innovation systems, and spectacle events that acted as “pacing devices” (University Business Director, Author’s Interview, 2017) and “anchor points for investment” (Academic, Author’s Interview, 2017)(Figure 29). Specific initiatives included provision of commercial premises and inward investment focused on priority sectors in business and consumer services including call centres and hospitality, leisure and tourism, and improvement of the built environment, refurbishment of historic buildings and provision of new flagship infrastructure to support business development (e.g. Scottish Exhibition and Conference Centre on the reclaimed site of the former Queen’s Dock at Finnieston). Shifting from an approach where “the city turned its back on the river” (Research Centre Director, Author’s Interview, 2017), key sites along the Clyde River were targeted to focus development but this amounted to “strip development” (Academic, Author’s Interview, 2017) and prefigured the later more strategic and integrated approach.

City branding policy was a key element in an attempt to shed the poor image of Glasgow as a tough industrial town that had lost its role and was in terminal decline scarred by unemployment, drugs, gangs and violence – summarised in the ‘no mean city’ reputation (McArthur and Kingsley-Long 1957). Inspired by the ‘I Love New York’ campaign in the 1970s (Greenberg 2008), the strategy focused on improving and promoting a new and modernised image based on the ‘Glasgow’s Miles Better’ slogan and underpinned by tangible investment and improvement in the built environment and fabric of the city, especially its centre (Pacione 1995). The entrepreneurialism of city actors in the public and private sectors was promoted and their organizational capability, ‘can do’ attitude, effective partnership, energy, imagination and appropriate modern infrastructure (Turok

and Bailey 2004). Policy cohered around the 'Glasgow's Miles Better' campaign during 1983-1990 and its attempt to change negative perceptions from the history of 'Red Clydeside' and its attributes of collectivism, organised and militant labour, and poor industrial relations that were perceived as damaging to economic transition and investment (Checkland 1976). Strategy and policies sought to construct a new 'post-industrial' image and brand for the city based upon the service economy of cultural activities, private consumption and tourism (Turok and Bailey 2004). Events and investments included the Glasgow Garden Festival 1988 built upon reclaimed Princes Dock closed in the 1970s, 1990 European City of Culture, 1999 City of Architecture and Design, 2002 UEFA Champions League Final, 2003 World Bowl XI, Rotary International Convention, and 2014 Commonwealth Games (Pacione 2009). Policies have more recently sought to counter earlier 1980s criticism of elitism, misplaced priorities, short-termism, and ephemeral initiatives (Turok and Bailey 2004). More policy attention has been focused upon the wider economic and social benefits and enduring legacies, emphasizing the upturn in economic fortunes for the city and changing built environment.

From the late 1990s and into the 2000s, national Labour government and Scottish government policy connected and aligned, shaped by a new Scottish focus informed by successive national economic development strategies and policy frameworks. Priorities moved towards broadly-based approaches including economic, social and environmental dimensions, governance with multi-agency public-private partnership institutions, increased use of private investment, and emphasis upon partnership and community engagement (Pacione 2009). The early 2000s city policies of the Scottish Government introduced the beginnings of city-regional thinking to address longer-term infrastructure planning focused upon key city-regional and cross-boundary projects nationally significant for the Scottish economy. These included the long-term Clyde Corridor plan (including the Digital Media Quarter, International Financial Services District, Glasgow Harbour and Renfrew Riverside) and the upgrading of infrastructure including M74 extension, East End Regeneration Route and 2014 Commonwealth Games (Pacione 2009).

Attempting to catch the wave of changes towards services in the economic structure, city-centre focused policies were extended and deepened during the 2000s with the promotion of the knowledge economy and business and financial services. The emphasis upon the International Financial Services District at Atlantic Quay sought to attract financial services firms and complementary residential and hotel developments (Pacione 2009). More recently, policies have targeted the creative and digital sectors. The large scale Pacific Quay project – the former Princes Dock and site of the 1980s Glasgow Garden Festival – is the site for the new headquarters for the BBC, Scottish television company STV, production facilities for Scottish Screen, the Science Centre, Imax cinema, and commercial office and public leisure facilities (Pacione 2009). Further initiatives are linking into the city-centre ‘innovation district’ developments of Glasgow and Strathclyde Universities with policies aimed at exploiting and embedding their roles as anchor institutions supporting R&D, innovation, commercialisation and skilled labour production and graduate retention. Addressing the net export of especially science graduates from the city is a key and challenging issue given the limited scale of potential re-absorption in the engineering and manufacturing base despite its evolution and connection with ‘servitisation’ and ‘manu-services’ and the growth of the high-level functions of energy utilities in the city (Academic and Local Authority Official, Authors’ Interviews, 2017). However, the increased numbers of graduates in Glasgow’s looser labour market has led to some displacement of less qualified workers. This has occurred because of the relatively limited number of conventional graduate jobs available and the take-up by graduates of the middle and lower level jobs created by the shift towards a service-based economy in the Glasgow economy in sectors including catering, call centres, lower level administration, retail and related occupations (Turok and Bailey 2004).

In **Episode 3: City-regionalism, c.2010-**, the policy approach has evolved towards the (re)emergence of the city-regional scale, the medium and longer term and new hard/physical infrastructure initiatives (Figure 29). Policies in this most recent period have yet to impact upon structural economic change but important directions are emergent. First, the central-city focused strategy and policy has been consolidated. Initially, through the remediation and connection of sites adjacent to the city centre, for example the

Enterprise Area and 'Creative Clyde' project at Pacific Quay and the maturing and expansion of the infrastructure to compete for large scale international conferences, conventions and concerts at the Scottish Events Campus. Policies have been underpinned by a strategy of positioning Glasgow as the urban centre situated within and providing complementary roles and functions in the wider city-region of the Clyde Valley. This has been formalised within the Glasgow and Clyde Valley City Deal in 2014 and its policy focus upon economic growth, employment creation and infrastructure investment as well as the Scottish Governments funding of infrastructure to better connect Glasgow to its surrounding areas and open-up potential development sites in the East End and inner South Side. The central-city focused revitalisation in Glasgow has continued to raise issues about its relationships and roles in the broader city-region especially with the industrial towns in Inverclyde, Ayrshire, West Dumbartonshire and North Lanarkshire given their weaker economic potential, smaller size, lack of larger city/metropolitan assets, and struggle to attract attention and investment (Turok and Bailey 2004). Second, given the emphasis in urban economic growth thinking on scale, critical mass and connectivity, the conception of the functional economic area of the Central Belt linking Glasgow and Edinburgh has raised the potential for renewed co-operation on employment, housing and transport policies building upon the informal links around tourism, airport issues and cultural projects.

7 Policy outcomes and impacts

Assessing the outcomes and impacts of policies and institutions for the evolution of the city economy over five decades requires a broad and meso-level approach to discern the main elements of change and continuity, and construct plausible accounts of the roles of certain episodes of institutional arrangements and policy types. This approach contrasts narrower , micro-level and quantitative evaluations of specific policy initiatives over shorter time periods. Addressing the main domains in the analytical framework for the case studies (Evenhuis *et al.* 2017), the broad outcomes and impacts of institutions and policies can be outlined. First, in terms of the evolving economic base of the city, the large scale, rapid and

prolonged de-industrialisation has configured the institutional and policy responses especially central role of the public sector. National UK policies of liberalisation accelerated deindustrialization in the late 1970s and early 1980s. Under the weight of responding to the industrial crisis and mass job loss, local policy did not prioritise recovery and/or re-orientation of the manufacturing base due to problems of historic dependency on too few specialized sectors and perceived limited future prospects. Policy was unable meaningfully to challenge the limited embeddedness and sustainability of inward investment in manufacturing as an economic diversification path. Local policy was more successful in accelerating and focusing transition to a more diversified service-based economy through inward investment and indigenous development especially in more knowledge-based business services. The service-focused local policies supported growth of public and other private services especially in the city centre. Initial struggles to change entrenched internal and external perceptions of the city's economy and potential have made some headway through sustained policy efforts since the early days of the 1980s 'Glasgow's Miles Better'. Recent progress has been made through the – somewhat belated in comparison with other cities in the UK and internationally – policy and institutional focus upon science, technology and innovation policies and HE linkages to support innovation, upgrading and future growth paths via anchor institutions (BBC, HE, health and social care). Overall, the local policies appear to have supported the structural evolution of the Glasgow economy, especially when aligned with national policies, for example in halting the further extension of the New Towns programme that was proving detrimental to the city's economic adaptation during the 1980s. However, overall they appear to have had relatively little or at best sporadic and episodic influence on upon the level, nature and direction of change.

Second, labour market and skills policies have been relatively small scale, limited and reactive responses to the magnitude, pace and prolonged deindustrialization and uneven transition to the service-based economy. This has left and, arguably, entrenched a legacy of localised unemployment and inactivity amongst certain social groups in specific parts of the inner city and outer estates. Connecting with national policies, local policies have made some progress in supporting the uneven adaptation of the city labour market to the service-based economy focused on specific sectors, functions and markets such as retail,

back offices and customer support. Local policies appear weaker in being able to stimulate the growth of higher skills demand from employers to match the labour supply, especially from the city's universities which has resulted in the net export of especially science graduates. Extensive and planned public investments in education and further training have not been matched by private investments.

Last, there is clear evidence of institutional and policy impact in city centre transformation through sustained built environment and public realm investments, especially since the 1980s. Upgrading the infrastructure is work in progress and, notwithstanding the recent City Deal, is struggling with funding and financing challenges. Localised improvements via regeneration and housing development are ongoing. Success is evident and supported by the increasing emphasis on infrastructure for private and business tourism linked to HE and cultural/leisure amenities in Glasgow and beyond. Work is in motion on the more integrated and co-ordinated approaches to large-scale Clyde-oriented strategic development plans in Glasgow, the wider city-region and Central Belt linking to Edinburgh.

8 Conclusions

This case study of Glasgow has provided the context and brief economic history, outlined its comparative economic performance, described and explained the processes of structural economic change, mapped out the evolution of institutions and policies, and sought to understand their roles and influence upon economic change. Central to the analysis is that structural change, economic evolution and adaptation of the Glasgow city economy is explained by the socially and spatially uneven unfolding of the processes deindustrialisation and transition towards a service-based economy. Constitutive and causal relations between institutions and policy and structural economic evolution and adaptability in cities are difficult to determine and isolate their relative extent, nature, directions and strength. This is because the relations and processes involved are multi-faceted, direct and indirect, interactive and circular. Narrower evaluation approaches would highlight the lack of quantitative, robust and systematic data and perennial issues of

the counter-factual, additionality, deadweight and displacement. No automatic, direct or simple relationship is evident or claimed between institutions and policy and economic evolution. Notwithstanding these constraints, three arguments are made in analysing the Glasgow case with wider ramifications for thinking about and explaining the role of institutions and policy in structural economic change and adaptability at the city level.

First, the extent, nature and rate of (structural) economic change is integral to explaining city economic evolution and adaptation *and* the roles of institutions and policies. The large scale, rapid and sustained deindustrialisation in Glasgow has configured (rather than simply determined in a clear, linear fashion) policy formulation and institutional design in multiple ways. These have included the formulation of multi-faceted development strategies and policies with particular objectives and the design of institutional arrangements with specific and integrated remits both sectorally and geographically. With the structural shift towards a service-based economy, the institutional and policy focus upon supporting transition to a service-led and city-centre focused development based upon attracting and supporting growth sectors was critical to Glasgow's adaptation. The particular kind of service-economy established with its dual structure of high and low end services has shaped the further evolution of the city economy. The reliance upon the public sector suggests that a combination of the city's rebuilt form, infrastructure and legacy have filtered the kinds of services growing in the city. Other British cities have arguably had a more upgraded transition towards more higher value-added activities, whether or not this has been assisted by institutions and policies. Economic evolution, then, appears to have a generative and formative role in shaping how institutions and policies emerge and develop. The sheer weight of economic change has made formulating policies and institutional arrangements and assembling resources to confront the scale of the task challenging and difficult. Across episodes of change in Glasgow, actors have sought to be adaptable and catch-up in diagnosing the scale and nature of the problems, attempting to ameliorate them, and trying to shape emergent and establishing directions of change. In the longer-run particular kinds of resilience and adaptation to structural change are evident in Glasgow from the end of slavery and tobacco trade and bank failures of the 1870s

(Markusen 2012), but the modern record demonstrates weakness in adaptability and periods of vulnerability.

Second, the level and nature of structural economic change in cities creates circumstances in which public sector institutions and their policies acquire roles of particular kinds. The weakness and plight of the private sector and scale of economic change in Glasgow situated the public sector as the lead actor and public policies as the key interventions in trying to shape economic evolution and adaptation. In conditions of weakness in the economy and private sector, the impact of public institutions and policy are key and marked by their co-operation and joint partnership working given the range and scale of issues to be addressed. The turn to services and the city-centre based strategy rather than attempts to revitalise the failing manufacturing sector was a key strategic turning point, shaped by the large scale, entrenched decline and limited growth prospects of the traditional industries. The public sector institutions were hampered in their roles and responses to economic change through the UK's centralised system of government and governance (including centralisation at the Scottish level), the historical and ongoing change, churn and disruption in institutions and policies and their periodic lack of alignment in strategic, policy and geographical terms. Private sector influence grew from the 1980s in line with the growing private services sector in the city economy, with its persistent calls for the relaxation of planning controls and more rapid decision-making (Turok and Bailey 2004), and partnership working has become central to the institutions and policies developed.

Last, the level, character and form of the influence of institutions and policies upon structural economic change and adaptability is variegated over time and space. The experience of Glasgow since the early 1970s demonstrates the episodic nature of the influence and imprint of institutions and policies at certain points and under particular conditions, shaping evolution in certain directions including the attempt to hasten and manage the transition to a city-centre and service-based economy. Given its relatively smaller scale and specialised focus, territorial development policy sits within and is influenced by the wider forces of national economic conditions, macroeconomic policy and

the larger spend of mainstream public policy (e.g. education, health). Regional and urban policy is interpreted as “most likely to succeed when it is least required, and least likely to succeed when it is most needed” (Lever and Moore 1986b: 142-43). The nature of this relationship suggests institutions and policies have most purchase upon shaping city economic evolution when working with the grain and direction of economic change to steer economic pathways once established, underway and in motion. This is evident in the acceptance and acceleration of deindustrialisation and transition towards a service-based city economy from the 1970s. There is less evidence in the Glasgow case that institutions and policy can be readily generative and able to stimulate emergent and new economic paths that would not otherwise arise in the city. Institutions and policies have more influence in conditions where there is commitment and support to provide capacities, capabilities and resources able meaningfully to shape economic change. Over the three episodes of institutional and policy change in Glasgow – regionalism and sub-regionalism (1970-1985), city localism (1986-2009) and City-regionalism (2010-) – that influence looks to have diminished and lessened in relation to fostering the emergence of new and sizeable economic strengths with growth potential.

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