

The Case for Place-Based Policy

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Group of high-level specialists on the future of Cohesion Policy

The European Commission, the Directorate-General Regional and Urban Policy (lead) and the Directorate-General Employment, Social Affairs and Inclusion (associated) have set up a Reflection Group on the future of Cohesion Policy. The group includes high-level members from academia and practice and in 2023 will meet nine times to reflect on current and future needs and the functioning of Cohesion Policy.

The group will offer conclusions and recommendations that will feed the reflection process on Cohesion Policy post-2027 including through the 9th Cohesion Report in 2024 and the mid-term review of Cohesion Policy programmes in 2025.

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Disclaimer

This paper is an independent input to the reflection paper. The opinions expressed in this paper are the sole responsibility of the authors and do not necessarily represent the official position of Reflection Group or the European Commission.

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Acronyms

NUTS	Nomenclature	of territorial	units for statistics

OECD Organisation for Economic Cooperation and Development

R&D Research and development

UK United Kingdom

US United States

Introduction

This short paper develops arguments to address three questions:

- How to build the case for a reinforced place-based policy approach to cohesion policy?
- How to further strengthen the place-based development elements of cohesion policy?
- How to further increase the effectiveness of place-based cohesion policy, in particular for green and digital transition?

Building the case for place-based policy requires identifying and understanding the fundamental economic reasons for spatial disparities. If such disparities were just random self-correcting shocks there would be little case for policy. The paper will make the case that spatial disparities arise and are persistent because of failures of economic adjustment that are inherent to the spatial context, and therefore require a place-based policy response. The paper sets out recent economic thinking about these failures and about the possibility that a region may become stuck in a 'low-level spatial equilibrium'. The costs of such are trap are outlined.

Building the case and tackling the problem requires credible and effective policies. While there are no easy solutions to the problem, the paper outlines recent approaches to the design of policy and also offers some speculations about the implications of new technologies.

The context is principally lagging sub-national regions. Regions are heterogeneous, all having different economic structures, with different skill mixes and consequent differences in income per capita and other economic outcomes. The focus of the paper is on those regions that have fallen behind their neighbours, typically because they have experienced negative shocks such as loss of traditional sources of employment, driven by trade or technology shocks or more general structural change.

The perspective throughout is that of economic analysis. The paper will use economic reasoning to outline the way economists now think about regional issues. Some empirical backing will be provided, drawing principally on UK regional problems. Little attention will be given to other dimensions of the problem, including governance and sociological aspects; these are undoubtedly important, but beyond the scope of this paper.

1 Why are there persistent regional disparities?

Regional disparities can arise as areas are hit by negative economic shocks due to changing technologies or patterns of trade, or during a period of relatively rapid economic change as some areas pull ahead of others. They are particularly problematic as they often persist for long periods of time.

How can such differences persist in reasonably well-functioning modern economies? A simple economic view is that price signals – changes in relative wages and asset prices between an affected region and others – should bring about automatic adjustment and convergence. The relatively poor performance of lagging regions might be expected to reduce relative wages and prices, thereby triggering two adjustment mechanisms. One is a change in labour supply to the region; out-migration mitigates the problem as households and workers leave the adversely affected region. The other is new sources of labour demand; new jobs should be created, as firms respond to cheaper labour by investing in the region.

In practice these signals do not work effectively to bring about the desired change, for two broad reasons. One is that, within an integrated economic region, price signals may be quite weak. Price changes are muted by the fact that there is no local currency (specific to an affected region) to depreciate, so the main mechanism that operates for adjustment between nations is absent. Furthermore, some relative prices across regions may be fixed by national or supra-national practices and regulations (e.g. wage rates set at a national rather than regional level), and by the fact that markets are highly integrated (e.g. a common interest rate). Other relative prices do change, especially those of 'immobile factors' – land, housing, and less mobile types of labour.

The second reason is that the responses of households and firms (respectively supplying and demanding labour) to any price and wage changes that occur are weak and highly selective, changing both the composition of the remaining labour force (labour supply), and the nature and skill mix of the jobs on offer (labour demand). These effects may deepen, rather than cure, any initial disparities.

Migration, skills, and labour supply: Migration has been, and continues to be a major force for moving people out of lagging regions to more economically productive areas.² Urbanization is the prime example of this, and continues to be important even in areas that have a long urban history. Potentially, it brings two benefits. Workers who move experience a direct personal gain – that is why they move. And the left-behind population experiences an increase in income as labour becomes the scarce factor, e.g. since there is now more land per remaining worker. Both these mechanisms work in many circumstances, but are problematic in the context of lagging regions.

Opportunities to move – and returns from so doing – vary widely and may be severely constrained. Migration is an investment that incurs fixed costs (both financial and in terms of disrupting social networks) and the returns to this investment are generally greater for the young and the high skilled. Furthermore, ability to move is conditional on a person's assets – their human capital and their financial resources. Two people of identical ability brought up and living in different places are likely to have followed different career paths, and acquired different skills and possibly very different housing wealth. A potential migrant from the lagging region may therefore be unable to access the higher living standards of a counterpart in the high-income region. He/she may have the wrong skill mix or be disadvantaged in the housing market, facing additional housing and borrowing costs. These obstacles create major barriers to migration from low to higher income places.

To the extent that out-migration occurs, its impact on the left-behind region may well be negative rather than positive. Since migrants are generally the younger and more skilled, the demographic and skill composition of remaining population is adversely affected (Box 1). Loss of population does not bring benefits to the remainder, since economies of scale are lost (in contrast to a traditional view based on diminishing, rather than increasing returns to scale). Stagnating or declining land and house prices lower the incentive to maintain existing buildings and to build new, and there may be deterioration of public services as the local tax

¹ The following arguments are context – time and place – specific. For a review of the way in which the balance between regional convergence and divergence forces has moved in the direction of divergence in recent years see Floerkemeier et al. (2021)

² The US experience is instructive. Internal labour mobility was high until the early 1990s. Up to that date US places responded to negative shocks by out-migration, such that unemployment and per capita income levels returned to their pre-shock levels within a few years (Blanchard and Katz 1992). Mobility rates fell sharply from the 1990s, and with it came slower adjustment and the emergence of larger and more persistent spatial inequalities (Austin et al. 2018).

base is eroded. The sense of being 'left-behind', the discontent that this causes, and consequent political implications are well documented.

Box 1: Migration: Age and skill

A thorough analysis of the skill and age mix of UK regions and the impact of inter-regional migration is undertaken by Overman and Xu (2022). A flavour of their findings is conveyed by data comparing London with some of the poorest towns in the UK, in particular Skegness and Grimsby, two town on the North and central East coast of England.

In London and other prosperous cities such as Bristol 35% of the adult population is less than 35 years old, compared to 17% in Skegness. At the other end of the age distribution, only 16% of London's adult population is over 64, while in many coastal towns the share exceeds 35%.

Differences in skill levels and the role of migration in redistributing skills are highlighted by the education of a snapshot of 27 year-olds, looking at those born in a place compared to those working in the place. In London 36% of those born in London have a university degree, and this is supplemented by net in-migration of skilled workers such that 44% of those working there have a degree. In Grimsby the proportion of 27 year-olds born in the city who acquire degrees is 19% and even fewer of those working there have one, where the proportion is just 12%.

Job creation and labour demand: The second potential adjustment mechanism is that new jobs are created in lagging regions to drive new economic growth or to offset job losses in traditional sectors. Land is likely to be readily available and, to the extent that relative wages and rents change, land and labour may be relatively cheap compared to booming regions, so firms should find lagging regions profitable places in which to invest and expand. In some contexts wage differences might be large enough to trigger such investment (e.g. inwards foreign direct investment to a low wage region), but this is often not the case. Why don't firms take these opportunities and move to lagging regions?

The list of considerations shaping firms' location and investment decisions is long, including the institutional quality and governance of the place, and the geography of transport and communications. A critical element is that firms are typically embedded in a network of workers, suppliers, customers, and providers of technical knowledge and financial capital. On the worker side, firms need access to workers with appropriate skills which may be absent in lagging regions; the process of matching workers to jobs is more efficient in a large and thick labour market. Access to both suppliers and customers may require detailed information exchange, timely delivery, and perhaps face-to-face contact. Technical knowledge spills over from firm to firm through formal and informal channels, and through worker turnover. Investment in very highly specialized skills and techniques is profitable only if there is a sufficiently large market. These networks or business ecosystems are, in many cases, place-based, sometimes operating over very short distances. They raise firms' productivity, driving agglomeration and supporting clusters of activity and urban centres (Box 2). Crucially, many of the benefits are externalities, i.e. they are transmitted from firm to firm without being purchased at additional cost.

Box 2: Marshallian and Jacobs agglomeration economies; theory and evidence

Authors have put forward different channels through which cities achieve agglomeration economies. For Jane Jacobs it was driven by size and diversity of the city as a whole. For Alfred Marshal and others it was more focused on particular sectors, sharing similar technologies, labour skills, and supplier networks. Econometric studies have estimated

the magnitude of the effect to be such that each doubling of city size (across the cross-section) is associated with productivity as much as 4-10% higher, this consistent with observed productivity differences between e.g. large and small cities in the US and some other countries (Rosenthal and Strange 2004). More recent approaches have divided this effect into pure agglomeration economies and worker selection effects – i.e. large urban areas have individuals who are generally more skilled, and who would be relatively productive even outside large urban settings. (Combes, Duranton and Gobillon 2008, de la Roca and Puga 2017).

These forces all mean that firms in established centres – even if they are paying relatively high wages and land rents – are gaining productivity advantages by their presence in these clusters. As a consequence the location of firms is 'sticky' – i.e. firms are relatively immobile, attached to an existing cluster. An important aspect of this stickiness is 'the first-mover problem'. It might be profitable and beneficial for an entire cluster of activity to move from a high-cost centre to a lagging region, but it is not in the interest of any firm to be the first to do so. To do so would mean foregoing the benefits of being in the cluster while being uncertain as to whether other firms will follow. In the absence of coordination across a wide range of investors (firms and skilled workers) the cluster remains in place, so this adjustment mechanism fails.

The trade-off between agglomeration benefits and the costs of labour and land is highly sector specific. It may be relatively easy for firms or establishments in a sector such as food processing or back-room office operations to relocate, while high-technology and financial service sectors are much more dependent on their established local networks – a dependence which information and communication technology has not, until now, substantially altered. The difference between these sectors shows up in their observed propensity to cluster.

The distinction between sectors that are more or less easy to move is, in some cases, aligned with several other features of the sector. One is skill-intensity. Knowledge spillovers have become an increasingly important feature of agglomeration economies, and it is knowledge intensive sectors – such as those in high-technology and finance – that appear to be the most prone to cluster. Another is the tradability of the sector. All places have non-tradable sectors – restaurants, hairdressers, health and education services. Sectors supplying goods that are tradable over a medium range (e.g. within a country, sectors such as logistics or food processing) also tend to be dispersed across many locations and are relatively easy to move. Sectors producing output that is internationally tradable and in which developed countries have a comparative advantage are often highly skilled, and need to operate at a high level of technical sophistication and productivity. These are the sectors (and firms) that tend to be more spatially concentrated, and correspondingly stickier, more difficult to detach from existing centres.³

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³ Rice and Venables (2022) produce a measure of the tradability of the output of each sector and derive a measure of UK NUTS3 regions' bias towards operating in tradable sectors. This measure accounts for two- thirds of the variation in earnings across these regions, with the average skill intensity of sectors accounting for the remaining one-third. The mechanism is that the presence of a booming tradable sector bids up prices, rents and therefore also wages in a booming area.

Outcomes and spatial equilibrium: The features described above imply that automatic adjustment mechanisms are highly imperfect and possibly inadequate to correct spatial disparities. Such disparities are therefore likely to persist. In economics jargon, they can trap a place in a low-level spatial equilibrium. Equilibrium in the sense that workers and firms, acting individually in their own best interests, have no incentive to behave differently, e.g. by acquiring additional skills or investing in new places. The critical aspect of this is that it arises out of the independent actions of many different decision makers. Firms don't want to move because other firms have not moved, or because workers do not have appropriate skills. Workers don't want to acquire particular skills, as they do not see job opportunities arising from them, and so on in a vicious circle.

This is a problem of coordination failure. A better outcome might be possible, but it requires coordinated action to shift from a low-level to a high-level spatial equilibrium. The usual mechanism that coordinates economic actions – the price system – proves inadequate, because many of the interactions involve externalities or are not properly priced. This is the fundamental reason why place- based policy is needed.

Research on these issues has looked in detail at factors behind both labour supply (the composition of the labour force) and the labour demand (the sort of jobs on offer in a place). Focusing on the labour supply side, work by Overman and Xu (2022) has claimed that 64% of the variation in wages across UK travel to work areas is accounted for by the characteristics of the individuals that work there, and just 10% left attributable to area effects (the remaining 26% being positive covariance between these factors). Focusing on labour demand and the sectoral structure of local economies, Rice and Venables (2023) claim that, even after controlling for sectoral wage differences, two-thirds of wage variation across UK NUTS3 regions is attributable to a measure of the extent to which the economic structure of a district is skewed towards sectors that are relatively tradeable (and that tend to cluster) rather than sectors that are non-tradable (and 'ubiquitous' – present almost everywhere).

Superficially, these statements seem contradictory, but in fact both can be true. The spatial equilibrium lies on both the labour supply curve and the labour demand curve, and it is their interaction that generates the outcomes we observe. This points to the need for effective policy to work on both sides of this relationship, an argument developed further in section 4 below.

Box 3: The persistence of negative shocks; two generations later

The UK was hit by de-industrialisation quite early, with major negative shocks during the 1970s. The impact of this can be measured by looking at the male employment rate (the proportion of male population of working age in employment) across UK areas (local authority districts). In worst affected districts this rate fell by around 10 percentage points during the 1970s. Work by Rice and Venables (2021) traces out the consequences of this to 2011 and finds that, on average, only a small fraction (less than 1/10th) of this loss had been recovered by 2011.

The study also traces out the impact of de-industrialisation on various measures of deprivation. Regions that were hit did not, on the whole, have worse than average measures of deprivation in 1970. Pockets of deprivation in these places emerged during the decade and were highly persistent. In 2015, two-thirds of the UK's most deprived areas were places hit in the 1970s, and of places badly hit two-thirds are still in the lowest quintile of areas by deprivation.

2 Do regional disparities matter?

Spatial inequalities account for just a small fraction of total interpersonal inequality. Furthermore, while regional differences in nominal earnings can be relatively large, these are substantially offset by variation in the cost of living, in particular by regional variation in house prices (Overman and Xu 2022). Measures of happiness or well-being often indicate similar scores across regions, with economically booming places not scoring particularly high (Haldane 2019). These observations raise the question, do regional disparities matter? There are at several reasons to think that they do.

First, regional inequalities are perceived to be particularly unfair. Place of birth or residence denies people of some of the opportunities that are open to comparators (people of similar ability and social background) located in the wider area. Place of birth and education is outside individual control, and once the path of asset accumulation (the education, career ladder and housing investment) are set, so too are later life options. Out-migration might be possible, but the migrants' skill and asset base will likely narrow his/her options relative to those of comparators. The short-run political implications of this sense of unfairness are apparent, and it poses longer term threats to the mutual responsibilities required by democratic societies.

A particularly damaging aspect is the inter-generational persistence of these inequalities. This is perhaps seen most starkly in regions of Southern Italy, while Box 3 shows how, in the UK, there is still scarring from negative shocks that occurred nearly half a century ago. This is not just in overall economic performance, but also in pockets of severe deprivation, lowered expectations and aspirations, and severely depleted social capital.

Regional disparities also matter for overall economic efficiency. There is a positive effect, as overall performance is boosted by the presence of booming regions that deliver the productivity gains outlined in Box 2. Regional heterogeneity is necessary for these gains to be achieved. Set against this are two arguments. One is that there is an allocative inefficiency as assets are not located in places where they could earn the highest return. There are stranded assets, both in the form of loss of talent, and in buildings and other elements of potential economic capacity trapped in poor regions. This is more costly the slower the adjustment process (i.e. the slower is the reallocation of workers and/or firms across regions). At the same time there may be excess costs of congestion and over-crowding in booming centres.

The second, argument is that regional disparities may be one aspect of the national economy having too few areas that contain highly productive agglomerations of activity. A developing economy typically experiences increasing then decreasing regional inequality as growth starts in some places but takes time to spread to others (Floerkemeier et al. 2022). In an established economy, places that have lost comparative advantage in a traditional sector generally find it difficult to attract internationally competitive activity to replace these sectors.⁴ Even if employment in such places recovers, it is often in low-value and low-skill sectors – activities that are relatively less locationally sticky. Having relatively few internationally competitive activities is a problem for national economic performance, as well as for the directly affected region.

 $_{
m 4}$ See Venables (2020) for development of these ideas.

3 Effective place-based policies

Preceding sections make the case that adjustment mechanisms fail, principally because of coordination failure. The market choices of individual firms and workers may leave a place in a low-level equilibrium, with adverse consequences for the place and for the wider economy. Establishing new high value activities in a lagging region is not an automatic outcome of market processes, but may require a policy response.

This is a diagnosis of the problem, but the design and implementation of effective – and cost effective – policies have been elusive. What does the diagnosis suggest about the form such policies should take? A policy framework should involve three steps; setting clear objectives, identifying instruments that can achieve these objectives, and designing a process that selects policies in an efficient manner.

Policy objectives: It is helpful to distinguish between two different objectives for place-based policy. One is to make 'marginal' changes, i.e. to improve well-being in a region, but not necessarily to trigger a substantial change in economic performance. The other is 'transformative', seeking to change behaviour and thereby radically improve a region's economic performance, shifting it out of a low-level equilibrium trap.

These different objectives call for different policy instruments, and also different modes of policy appraisal. If policy is intended to be transformative then appraisal requires establishing both the *direct* and the *indirect or induced* changes generated by the policy. Thus, a road improvement will have the direct effect of reducing travel times by X minutes and generating Y additional journeys per day. An indirect effect arises if a change in private sector investment behaviour (of firms and households) is induced by the policy. For example, new jobs may be created as better communication links induce a new factory to become established in the region.

Appraisal of 'marginal' projects generally (and appropriately) ignores these indirect effects. Two reasons justify this. One is that they are likely to be very small. The objective of a marginal policy (such as improvement of local amenities e.g. a sports centre) is to raise the well-being of inhabitants, with small impact on firms' investment decisions or workers' educational choices. The other is that, even if indirect effects occur, their value may net out to zero. Job creation may shift workers from one job to another, but if the income created in the new job is (approximately) equal to the income lost in the old job there is no net gain. This cancelling out is what is expected in a market economy with few market failures, and is the justification for ignoring these effects in standard cost benefit analysis. Thus, these projects can be appraised using conventional cost-benefit or cost-effectiveness techniques.

By contrast, transformative policies are those designed to trigger significant indirect effects, with a view to shifting the 'low-level spatial equilibrium trap' that some lagging regions find themselves in. This is a situation where market failures have been identified, plausible direct and indirect effects have been targeted, and the case made that these effects are of net social value. What are the desirable features of such policies?

Policy design: Transformative change requires changing the long-run behaviour of many decision takers, in which case the following elements need to be taken into consideration:

Addressing complementarity: Complementarity means that the effectiveness of one
action increases the effectiveness of another. Complementarity between policies arises as
doing one policy may increase the effectiveness of another. Complementarity between
private actions arises as, e.g. the presence of a supplier may increase the attractiveness

of a place for a customer, and vice-versa.5 If complementarities are large enough the positive feedbacks they create may trigger a virtuous circle of actions.

- Multiple policies, scale and duration: The location and investment decisions of firms and workers depend on multiple factors, many of them arising out of complementary actions by other firms or workers. As noted above, firms will require access to skills, markets, inputs, technology, and finance. It is unlikely that a single 'most-binding' constraint can be identified and targeted by policy makers. A package of multiple mutually reinforcing policies is therefore generally required, covering infrastructure, skills, and possibly support for private investment and local amenities. Policy needs to operate on many fronts, both hard (e.g. infrastructure) and soft (financial and institutional support). It also needs to create confidence and change expectations about future performance.
- **Local knowledge and involvement:** Involvement of local institutions is needed to provide local knowledge, and as part of building institutions that can reduce coordination failure (e.g. chambers of commerce, local educational institutions, local government).
- Selection of places: Effective packages of support require scale and scope, so are costly
 and can only be done in relatively few places. Selection should be undertaken on need
 and, as importantly, likelihood of success. This usually mean selecting major urban areas
 in which the potential for attracting and holding young skilled labour and achieving
 agglomeration economies is greatest.
- Indirect effects; foreseen and unforeseen consequences: Indirect effects changes in private sector investment behaviour are crucial to the success of transformative policies, but also have wider implications, negative as well as positive, that need to be factored into decision taking. In particular. To name a few:
 - Displacement: Policy may simply relocate investment from one region to another.
 There may be a net gain if the investment is deemed to be more valuable in the
 lagging region. Or net loss if the relocation undermines an existing cluster of activity.
 The latter argument may be particularly important for knowledge intensive activities
 including private and public R&D that have large agglomeration economies and a
 high propensity to cluster.
 - Skills improvement: a positive effect on the lagging region, unless it has the effect of increasing the mobility of more able workers so promoting selective out-migration.
 - A policy focus on short-run employment: High levels of unemployment have often led
 policy to focus on short-run job creation, sometimes creating low-skilled jobs with few
 linkages to other sectors. There are short run benefits, but the creation of low skill
 jobs in non-tradable sectors may simply accelerate the process of locking the region
 into a low-skill equilibrium.

Case studies of the effectiveness of policy packages in turning around city performance are outlined in Box 4⁶.

https://www.bsg.ox.ac.uk/research/publications/turnaround-cities-anglo-saxon-case-studies-insights- pittsburgh-pa-newcastle

⁵ Complementary versus competing: The presence of a firm in the same line of business may have a positive impact (complementary, e.g. by building up a supply of skilled workers) or a negative one (competitive, e.g. by taking market share).

⁶ Research undertaken by a consortium of the Universities of Oxford, Sheffield, Manchester, alongside the UK2070 Commission and the Lincoln Institute for Land Policy, Boston . This box draws on the summary in Mccann (2023). For original documentation see: https://www.bsg.ox.ac.uk/research/publications/turnaround-cities-western-europe-case-studies-insights-lille-france-and https://www.bsg.ox.ac.uk/research/publications/turnaround-cities-german-case-studies-insights-dortmund- duisburg-and-leipzig

Box 4: Urban turn-around

Research has looked at eight 'turn-around' cities across six different OECD countries. The cities are Lille, France; Newcastle, New South Wales, Australia; Bilbao, Spain; Pittsburgh, USA; Dortmund, Duisburg and Leipzig, Germany; and Windsor, Canada. It points to six key common themes for successful place-based policies.

- There are complementarities between urban redevelopment strategies and economic development strategies. The attractiveness of a place for living is as important as it is for business investment.
- Effective redevelopment strategies need to be comprehensive, not piecemeal or ad hoc in nature.
- Successful strategies build upon a region or a city's strengths.
- Local and regional leadership rather than central government-led policies matter for turnarounds, with central government playing a supporting rather than a primary role.
- Long-term, significant and stable funding is required, enabling the creation of local capacities and a long-term vision rather than a multitude of piecemeal projects.
- The engagement of a variety of actors and a sense of collaboration for the common good play an important role in the design and implementation of strategies and policies.

The policy process: The case for place-based policy rests also on a rigorous and transparent process which credibly tests and appraises the likely effects of a policy and informs decision taking. Such a framework should include (amongst other things) the following elements.

- A clear and detailed statement of objectives; what is the policy is intended to achieve?
- A clear and detailed statement of how the policy will achieve these objectives. This involves specifying the quantity changes (direct and indirect) that the policy is expected to bring about, and spelling out the causal mechanisms through which policy is expected to bring about these changes.
- A calculation of the social value of these changes, i.e. ascribing monetary values to the costs and benefits of the policy as an indicator of social return to spending.
- Testing the policy under alternative scenarios, in particular its sensitivity to private sector ('indirect') responses.
- Presentation of appraisal results in a transparent for

4 The effect of new technologies

How might the arguments outlined above be influenced by new technologies including digitization, artificial intelligence, and the energy transition? History and theory provide a few pointers in an inevitably speculative area.

Booming clusters of activity have always existed around market centres and seats of government. The 19th and 20th century saw clusters develop around natural resource deposits, with the associated growth of extractive and manufacturing activities, activities that were relatively unskilled labour intensive. The latter part of the 20th century saw the economic basis of many of these clusters decline, particularly in Europe and North America, while at the same time knowledge-based activities became an increasingly large share of the economy. These showed a strong propensity to cluster, leading to a revival of some, but not all, large urban centres. These are clusters based on relatively skill intensive activities, so their prosperity tended amplify spatial income differentials in a way that extractive and

manufacturing clusters, based on relatively low skilled labour had not. Might new technologies be likely to create a new cycle, undermining some economic centres, creating new ones, and with it a new pattern of regional (and international) income distribution?

The resurgence of cities in recent decades took some by surprise. Digitization led to predictions about the 'death of distance' and 'flat earth'7. These predictions failed to materialize as the value of face- to-face contact in knowledge intensive sectors outweighed the effects of information and communication technologies. The continuing progress of digitization and the arrival of post-covid work practices are now raising similar issues about the future of cities. However, it seems likely that the forces that led knowledge intensive activities to cluster - the need for face-to-face interaction for exchange of complex tacit knowledge and for social reasons - will continue to be important. Continuing, but less frequent, trips to the office will still have benefits but, if they are made just three or four days week, their total cost will fall. Continuing benefits of agglomeration but lower commuting costs suggest that cities become more not less important. As they do so urban commuting hinterlands will likely expand, as people becoming willing to travel further, but less frequently. Duranton and Hanbury (2023) suggest that these changes might amplify the skill intensity of city centre employment, particularly if city centre amenities are not allowed to decline. The consequences of letting city centre amenities (particularly public transport) deteriorate are perhaps now being seen in some North American cities. There is little here that offers improved prospects for lagging regions or second tier cities, unless these offer particular amenities that attract residents.

The energy transition, together with new manufacturing technology, will reshape economic geography within Europe and globally. The energy transition will create opportunities for new natural resource-based clusters around sources of green energy, rare earths, and opportunities for carbon capture and storage. Growth of activity around the North Sea has been suggested as one possibility, and power generation around the south coast of the Mediterranean or in Africa more widely as another.⁸ At the same time, clusters based around fossil fuels and internal combustion engines will contract. Two policy messages come out. First, the importance of building the infrastructure – regulatory, human capital, and physical capital to support new clusters. And second, the need to act promptly to prevent the vicious circle of decline that can emerge in places that lose an existing source of comparative advantage.

5 Summary and conclusions

The case for activist place-based policy rests on: (a) The fact that fundamental market failures prevent automatic adjustment mechanisms from working effectively, so that disparities may be persistent as places get trapped in a low-level equilibrium. (b) That these market failures are sufficiently well understood that well-targeted policy can be designed and implemented. (c) There is evidence of the effectiveness of such policies.

This paper has argued that automatic adjustment mechanisms, through movement of firms and workers, may not be sufficient to bring convergence. Agglomeration economies mean that firms may be unwilling to move, and movement of firms and workers, when it occurs, may be selective, tending to concentrate lower skill and lower wage activities in lagging regions. These market failures mean that disparities may, in the absence of effective policy, be persistent.

⁷ See for example Cairncross (2001), Friedman (2005).

⁸ For discussion of the North Sea, The Economist (January 2023), and North Africa, Yale Environment 360 (2023).

Policies to shift a region out of a low-level equilibrium need to induce large changes in private investment, by workers in skills, and by firms in the location of their operations. There are complementarities (reinforcing feedback mechanisms) between different policies, and with private investment decisions. This suggests the use of substantial policy packages, comprising a variety of both hard and soft measures. Case studies of 'turn-around' cities demonstrate that such packages can be effective.

Green and digital transitions might be expected to create new centres of economic activity, while damaging prospects in places that fail to make the structural changes required. Place-based policy will be important both in facilitating the growth of new centres and, if undertaken in timely fashion, preventing vicious cycles of relative decline in adversely effected places.

References

Austin, B.A., Glaeser, E.L., and Summers, L.H., 2018, "Jobs for the Heartland: Place-Based Policies in 21st Century America", *NBER Working Paper WP 24548*, National Bureau of Economic Research, Cambridge MA, http://www.nber.org/papers/w24548; *Brookings Papers on Economic Activity*, pp.151-232, Spring

Blanchard, Olivier Jean, and Lawrence F. Katz. 1992. "Regional Evolutions." Brooking Papers on Economic Activity, no. 1: 1–75.

Cairncross, F. (2001) 'The death of distance; how the communications revolution is changing our lives.'

Card, D., Rothstein, J., and Yi, M., 2021, "Location, Location, Location", CES Working Paper 21-32, Center for Economic Studies, US Census Bureau, Washington DC, October

Combes and Duranton,

Combes, P-P. and L. Gobillon (2015). The Empirics of Agglomeration Economies. In G. Duranton, J.V. Henderson, and W. Strange (eds.) *Handbook of Regional and Urban Economics*, volume 5A, 247–348. Elsevier, Amsterdam.

Duranton, G. and D. Puga, (2004). 'Micro-foundations of urban agglomeration economies', in: J. V. Henderson and J. F. Thisse (eds.) Handbook of Regional and Urban Economics, volume 4, 2063-2117. Elsevier, Amsterdam.

Duranton, G., and A. J. Venables. 2018. "Place-Based Policies for Development." Policy Research Working Paper no. 8410. Washington: World Bank.

Duranton, G and J. Handbury (2023) 'Covid and Cities, thus far' NBER wp 31158

Combes, P-P., Duranton, G., and Gobillon, L., 2008, "Spatial Wage Disparities: Sorting Matters!", *Journal of Urban Economics*, 63.2, 723-742

de la Roca, J., and Puga, D., 2017, "Learning by Working in Big Cities", *Review of Economic Studies*, 84, 106–142

Duranton, G., and Venables, A.J., 2018, "Place-Based Policies for Development", NBER Working Paper 24562, National Bureau of Economic Research, Cambridge MA, April, See: http://www.nber.org/papers/w24562

Economist, The, 01/01/2023 'Can the North Sea become Europe's new economic powerhouse?,

Floerkemeier, H., Spatafora, N., and Venables, A., 2021, "Regional Disparities, Growth, and

Inclusiveness" in V. Cerra, B. Eichengreen, A. El-Ganainy and M. Schindler 'How to Achieve Inclusive Growth' IMF and OUP; also *IMF Working Paper 21/38*.

Friedman T.L. (2005) 'The World is Flat; a brief history of the 21st century'

Haldane, A.G. (2019) 'Is all Economics Local' Bank of England, London

Mccann, P. (2023), How Have Place-Based Policies Evolved to Date and What Are They for now?, processed, The Productivity Institute, University of Manchester.

Moretti, E. (2013) The New Geography of Jobs, Mariner Books, New York.

Overman, H. G. and Xu, X. (2022), 'Spatial disparities across labour markets', IFS Deaton Review of Inequalities, Institute for Fiscal Studies, London.

Rice, P.G., and Venables, A.J., 2021, 'The Persistent Consequences of Adverse Shocks: How the 1970s Shaped UK Regional Inequality', Oxford Review of Economic Policy, 37.1, 132–151

Rice, P.G., and Venables, A.J., 2022, 'Tradability, Productivity and Regional Disparities; theory and UK evidence', DP no. 21 The Productivity Institute, Manchester.

Rosenthal S. and W. Strange. (2004). 'Evidence on the nature and sources of agglomeration economies', in V. Henderson & J-F. Thisse (eds) *Handbook of Regional and Urban Economics*, vol 4, pp 2119-2171. Elsevier, Amsterdam.

Storper, M. (2018) 'Separate Worlds? Explaining the current wave of regional economic polarization', *Journal of Economic Geography*, 18, 247-270

Venables, A.J. (2020) 'Why some places are left behind: urban adjustment to trade and policy shocks', Oxford Review of Economic Policy, 36.3 604-620.

Yale Environment 360, 16/02/2023, 'In Scramble for Clean Energy Europe is Turning to North Africa'