

COHESION POLICY IN THE EUROPEAN UNION: GROWTH, GEOGRAPHY, INSTITUTIONS¹

Report Working Paper of

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Introduction

Economic activity is unevenly distributed across space. As a result, at many different territorial scales, --from the world, to among member states of the European Union, and within them -- there are conspicuous gaps in wealth, in the density of population and economic activity, and in the compositions of regional and national economies. Since the early 1980s, the EU has witnessed parallel processes of cross-national convergence, with countries in the original periphery of Europe catching up, and within country divergence, characterised by rising relative incomes in well-off regions of countries. A number of studies have demonstrated that that inter-regional disparities have grown since the 1980s, measured in terms of GDP per capita and employment (c.f. Puga, 1999; Esteban, 2000; Martin, 2001; Midelfart-Knarvik and Overman, 2002; Overman and Puga, 2002; Puga, 2002). The standard deviation of per capita GDP (EU15=100) for member states as a whole has declined from 12.5 in 1990 to 11.4 in 2000, but that same index increased from 26.5 to 28.5 for sub-national regions within member states, and would be much higher if all regions were compared to one another at a European scale.

Since the reform of the Structural Funds in 1989, the EU has made the principle of cohesion – of reducing disparities in economic outcome and opportunity amongst European regions – one of its key policies. In the context of rapidly changing economic, demographic, and political realities in the EU, most significantly the inclusion of new member states to the east, cohesion policy has become an ever larger component of the EU budget. The funds made available to support cohesion objectives have more than doubled in real terms since the late 1980s, making it now the greatest area of commitment within the EU budget, greater even than that related to the Common Agricultural Policy (CAP). For the period 2007-2013, €347 billion (at current prices) has been allocated for cohesion funds, more than 80% of which is targeted at promoting “convergence”².

Much of the language of European cohesion policy eschews the idea of tradeoffs between efficiency and equity, suggesting it is possible to maximise overall growth whilst also achieving continuous convergence in outcomes and productivity across Europe’s regions. Yet, given the rise in inter-regional disparities, it is unclear that cohesion policy has altered significantly the pathway of development from what would have occurred in the absence of intervention³. The reasons for this are complex and while some of them may have to do with the procedures for implementation of convergence policies or perhaps the scale of intervention (e.g. in comparison to equivalent US federal policies), others may well have to do with the absence of a realistic view of the economic geography of development and hence of the basic possibilities, constraints, and potential trade-offs faced by any effort to promote convergence.

² Source: European Commission, DG Region; see http://ec.europa.eu/regional_policy/policy/fonds/index_en.htm

³ Indeed, much research effort has gone into answering the question of whether European regional development intervention has met its objectives, with little clarity resulting. Recent independent analyses reach widely differing conclusions. While some studies find that, to a greater or lesser extent, the EU development effort since the 1989 reform of the Structural Funds has had almost no impact (e.g. Boldrin and Canova, 2001; García-Milà and McGuire, 2001; de Freitas *et al.*, 2003; Dall’Erba and Le Gallo, 2007), others indicate that it has been a success (e.g. Cappelen *et al.*, 2003). In between there are those who point out that the impact of the Structural Funds has been limited (e.g. Bussoletti and Esposti, 2004; Bouvet, 2009), mixed (e.g. Puigcerver-Peñalver, 2004; Eggert *et al.*, 2007), or tends to vary according to differences in emphasis across development axes (Rodríguez-Pose and Fratesi,

Thus, any fresh look at cohesion policy would be well advised to reconsider a complex set of potential tradeoffs and inter-relations: overall growth and efficiency; inter-territorial equity; territorial democracy and governance capacities; and social equity within places. This paper is part of an independent study on the future of EU cohesion policy. The objective of this paper is to provide new perspectives on the economic rationale of cohesion policy, with particular attention to the geographical dynamics of economic development. Specifically, we will draw heavily on three major developments in scholarship on regional development processes in recent years that shed new light on the tradeoffs and processes mentioned above: geographical economics, institutionalist social science, and endogenous (or innovation-based) growth theory.

The sources of growth and the tendency toward agglomeration

For much of the period between the 1960s and the early 1980s, the theories of trade and integration that were deployed to explain the geographical pattern of economic development tended to ignore the possibility that such development would cluster strongly in certain places (cities and regions, and within certain countries), and possibly generate long-run income divergence across regions and countries (see Appendix I). The neoclassical and Heckscher-Ohlin models emphasised the dispersion of economic activity, according to the principle of comparative advantage, and economic convergence, through subsequent adjustment of factor proportions in different places. The predictions of these theories found some empirical support within Europe and the United States: the post-war decades witnessed widespread economic convergence both at the national and at the regional level (Barro, 1991). However, the evidence for the usefulness of such theories was much weaker at wider territorial scales, such as in relations between highly-developed and much less-developed countries and regions. And indeed, some development economists in the 1950s and 1960s (e.g. Myrdal, 1957; Hirschman, 1958) emphasised the possibility that economic activity had “circular and cumulative” geographical patterns, reinforcing the stronger places and causing them to diverge from the less-developed areas. Some economists attempted to reconcile these two perspectives by arguing that areas such as Western Europe or North America represented selective convergence processes, or “convergence clubs,” where convergence would be possible among economies with similar “structural” characteristics, thus effectively limiting the geographical scope of convergence (Quah, 1996; López-Bazo et al, 1999). A more complex picture thus emerges at wider territorial scales (such as, for example, the world, or Eastern-Western Europe), where underlying structural capacities of economies are quite different. To complicate matters further, since the late 1980s – and especially since the beginning of the 1990s – even within Western Europe, there appears to have been a strong trend toward widening *within* country (i.e. cross-regional) disparities (Rodríguez-Pose, 1999; Puga, 2002; Brülhart and Traeger, 2005) (see also Appendix I). Economic integration and globalisation are unleashing forces that seem to be benefiting core regions within every country, often to the detriment of the periphery. This is happening virtually all over the world, with large cities in China, India, Australia, Japan, Brazil, Mexico, and elsewhere experiencing more rapid, sustained growth than medium-sized cities and rural hinterlands (Kanbur and Venables, 2005). Europe is quite typical in this sense, and large cities have generally outperformed most other regions both within their national boundaries and across Europe. This is the case of London, Paris, the Randstad, Madrid, Rome, the Scandinavian capitals, Dublin and most other capital cities

2004) or from one geographical location to another (Antunes and Soukiazis, 2005; Percoco, 2005; Mohl and Hagen, 2008).

in Europe. In sum, while integration in the EU to date has promoted inter-national convergence, sub-national inter-regional inequalities have tended to increase.

Research suggests that these trends are driven by (a) the technological paradigm driving growth, and especially innovation and its geography; (b) geographical integration of markets, combined with greater organizational and geographical fragmentation of production; and (c) the persistence of significant institutional differences between places in spite of integration. In this light, unless there is significant change in these powerful underlying forces, tendencies toward the geographical agglomeration of certain types of activities – those that generate the highest incomes – is likely to continue for the foreseeable future. This generates, at a wider scale, powerful tendencies toward income divergence, between “core regions” (i.e. those regions within which are located the largest economic agglomerations, typically encompassing metropolitan areas) and “peripheries” (i.e. regions generally lacking similar agglomerations and often the potential to generate scale economies, typically distant metropolitan areas and often, but not always, sparsely populated). Though there are also powerful forces for convergence that operate at the same time – notably the organizational fragmentation and geographical de-localization of production, as well as improvement in institutions in peripheral areas – they may not be powerful enough to counteract divergence forces, and this leads to the observation made by Myrdal (1957), that “spread” of development may be overwhelmed by the “backwash” of income effects (big home markets) and technology effects (core regions move up the technological ladder faster than backward regions can catch up to them). To our knowledge, a half century of more sophisticated trade and location models has not overturned this fundamental geographical logic of development.

As noted, however, great progress has been made in understanding the precise mechanisms of geographical development processes since the 1950s. Three such academic efforts to understand the persistence of development to generate core and periphery regions are most relevant in this regard.

- The first are “new economic geography” models, which emphasise how market integration, scale economies, transport costs and home market effects combine to favour the concentration of economic activity in “core” regions, and how the advantages of large, flexible, highly specialized labour markets and localized technological spillovers reinforce these tendencies (Krugman, 1991; Fujita, Krugman, and Venables, 1999)

- Secondly, models grounded in endogenous growth theory, including innovation economics (Schumpeterian growth theories), focus on innovation – the outward movement of the technological frontier and the ongoing extension of quality ladders and “product spaces,” and the positions of territories relative to this frontier (Romer, 1986; Lucas, 1988; Fontagne, Freudenberg, and Ünal-Kesenci, 1999; Grossman and Helpman, 1991; Aghion and Howitt, 2005). These models stress change and adaptive efficiency rather than the adjustment toward an optimal, equilibrium allocation of factors between places, which is the focus of most standard models of integration and trade. The economy is seen, in this perspective, as a restless search for new products and processes with high rates of return, through entrepreneurial search for these niches, but where the potential to do this is very unevenly distributed across territories. There is considerable empirical evidence in favour of this position, indicating that relatively high factor cost areas such as the core regions of the EU, are increasingly specialised at the top of “quality ladders” (products with high knowledge and technology content as well as advanced producer services) and that their exports correlate well to the areas in which they innovate (as measured by patent profiles) (Patel and Pavitt, 1991). Thus, economic geography and growth economics both emphasise innovation and processes of learning – knowledge creation and assimilation. They come together in that the human capital necessary to innovate operates through networks of knowledge transmission and training. This has important spatial implications since the transaction costs of transmitting many kinds of knowledge remain very high, and all the more so in the critical innovative parts of the economy, often involving face-to-face contact, defined institutional channels, and long periods to build up these channels.
- A third school of research argues that institutions are the key force in determining where a region is situated with respect to the technology frontier or hierarchy of economic functions, because institutions shape the ability of an economy to use and develop its resources in particular ways. These institutional factors can also contribute to the agglomeration of economic activity, insofar as institutional capacities are unevenly distributed, reinforcing the concentration of the most advanced activities in metropolitan settings in particular, and in highly developed countries in general. One particularly important set of institutions are those that facilitate innovation R&D, venture capital financing, and business support / facilitation; these are known collectively as “systems of innovation.” (Lundvall, 1992; Nelson, 1993). A certain economic scale is required to sustain such a range of institutions; moreover, only certain regions have the capacity to develop or attract the human capital and other resources needed to maintain such institutions at sufficient levels of quality. Second, as good institutional conditions are often hard to replicate, even mobile investments in innovation-oriented activities tend to concentrate where these favourable institutional conditions are found. On the other side, institutional weaknesses, stemming from lack of knowledge, capacity, or the protection of existing rents, may result in political coalitions that hold back appropriate institutional development, and policies that are inappropriate for sustaining innovation and growth given their position relative to different types of frontiers (i.e. institutional, educational, and, above all, the world technological frontier) (Acemoglu, 2006; Acemoglu and Johnson 2006; Persson, Roland, and Tabellini, 1997; Grossman and Helpman, 2001).

The geography of cores and peripheries is thus the combined result of agglomeration tendencies, the uneven geography of innovation, the wider process of geographical fragmentation of production, and the recursive feedbacks of these forces to the geography of institutional capacities. At any given moment, we may think of a stylised picture of three different “places” depending on their position relative to the world technology frontier – i.e. the stock of global technological knowledge available to innovators in all sectors of all countries (Aghion and Howitt, 2005, p.7⁴):

- *Places at or near the frontier*: characterised by high levels of skilled labour and access to capital, with few institutional and cultural barriers to developing and adopting new technologies; these tend to be core regions;
- *Places further from the frontier*: characterised by a lower mix of skilled (v unskilled) labour and /or limited access to capital; may face barriers to adopting and assimilating technology due to human capital, institutional, and / or cultural factors; these are possible near-term transition zones in the geographical division of labour;
- *Places far from the frontier*: characterised by a high concentrations of unskilled labour, limited access to capacity, low productivity and substantial cultural and institutional barriers to adopting technology; these are more often located in the periphery.

The locations of countries and regions relative to the different technology, educational, institutional, and other types of frontiers vary substantially on a global scale; this is also the case within the EU, which has a mosaic of positions relative to the technological / quality ladder hierarchy. In the EU, this tends to play out within an urban-regional hierarchy, exhibiting strong metropolitanization effects. Close to the frontier we find mainly metro regions or regions adjacent to major metro areas (often within functional urban regions). Other metro areas, often secondary cities within national urban systems, tend to be further from the frontier. Finally, lower-income regions, mainly located in the periphery remain in most cases very far from the technology frontier. There also appears to be a macro-geography to this, with core-periphery patterns nested at both the national and European levels. Metropolitan areas within North and Western Europe, which benefit from being geographically closer to the economic centre of Europe tend to be closer to the frontier than those in Southern and Eastern Europe which are located further from the largest European agglomerations. This seems to indicate that agglomeration and comparative advantages forces are at work over various, overlapping scales. Within the EU, there is a tendency for innovation and economic output to concentrate in the economic core; within countries concentration is in the existing core regions; and within regions, there is a tendency to concentrate in urban areas.

⁴ A territory’s position relative to the technology frontier is typically measured by total factor productivity, but it may also be measured by proxies for technology such as patents or product-quality and price data.

A final point can now be made, which brings this discussion back into a temporal context. From the 1960s to the early 1980s, it appeared to some researchers that convergence processes then in evidence among a set of developed OECD countries – known as “club convergence” – would slowly but surely gain ground at wider and wider spatial scales; i.e. that they would continue to deepen their grasp within highly developed areas such as Western Europe or North America. These processes were considered a template for world development as well. But the major structural change in the world economy in the 1980s – commonly referred to as the New Economy – seems to have increased the importance of innovation for economic growth, and with it powerful trends toward agglomeration at various spatial scales, and with that, the importance of spatially-uneven distribution of institutional capacities to innovate. The result is the “backwash” that has been in evidence recently, in the form of complex, and stubborn, spatial hierarchy of incomes, within Europe and at the world scale.

Is there a conflict between efficiency and convergence?

We have noted that, even though there are indeed some forces for convergence that are unleashed by integration, there are also many forces that push in the other direction. It is precisely this notion that underlies the call for policies that encourage convergence or inter-territorial equity, within the European Union. But as should also be clear, such policies are not only costly, but they may also have unintended effects.

Agglomeration is generally good for economic growth and development because it is the privileged geographical form taken by economic systems which carry out extensive innovation and quality improvement (World Development Report, 2008). And the link between innovation and agglomeration tends to be self reinforcing: innovative activities tend toward agglomeration; and the greater the economic agglomeration, the greater the potential for innovation, for knowledge spillovers, and for higher levels of economic growth. As noted, excessive equality may be detrimental for economic growth if it involves limiting the productivity- and innovation-enhancing effects of agglomeration; some degree of inter-regional inequality may therefore raise the overall rate of growth. Regional inequalities in the EU are significantly higher than those found in the US, but also significantly lower than those found in most countries in the developing world, including China, India, Russia, Brazil and Mexico (Rodríguez-Pose and Gill, 2004). Agglomerations do generate positive spillovers, both in terms of economic multipliers and, critically, the spread of knowledge; however these exhibit spatial selectivity and suffer from strong distance decay effects (Audretsch and Feldman, 2004; Moreno et al., 2005). Thus, most positive spillovers tend to accrue to regions that surround cutting-edge metropolitan areas. Knowledge spillovers to other metropolitan areas arise, where they are well networked (including physical transport and communications links as well as links within firm and industry production chains) as part of an integrated regional or national urban system. But the scope for this is limited. Even within highly developed countries, sparsely populated regions are highly unlikely to benefit from the knowledge spillovers generated by agglomerations at the core, as they generally lack the connections to access them, the capacity assimilate them, and the scale to enable them to function through the formation of local agglomerations. For similar reasons peripheral regions at the European-wide scale – specifically in the South and East, located outside the innovative penumbra of the North and West of Europe – are unlikely to capture a significant share of the spillovers resulting from agglomerations in the European core, except for cities at the very top of their urban hierarchies.

Inequalities in growth across regions may not be so harmful in the short term, as long as growth across all regions is relatively robust. In a “race to the top” scenario even the

losers may be far better off than they were when the race began. Thus, in an analogy to “gains to trade,” agglomeration (as a geographical expression of specialization) may indeed be essential to maximizing overall output of the economy, but the distribution of those gains may be uneven. There are, of course, limits on the degree to which agglomeration contributes to greater economy-wide growth. Particularly as agglomerations seem to occur most strongly in metropolitan environments where space may be limited⁵ (and in the European context at least, there has generally been a strong consensus in favour of containing the spread of metropolitan growth), they also create diseconomies (Duranton and Puga, 2000). These manifest themselves in congestion (time), housing costs (with knock-on implications for wages and other inputs), and environmental degradation. Yet on the whole, the evidence points strongly to a positive association between agglomeration and economic growth (Bourguignon and Morrison, 2002). This suggests that if Europe is to remain competitive in a more open and integrated world, and if Europe is to become more of an innovative “first mover” in the global economy, agglomeration may be the geographical underpinning of so doing. Indeed, comparisons of the economic geography of the EU to that of the USA show that Europe has fewer and smaller specialized agglomerations than the USA, and many scholars believe that this difference enhances the US’s ability to dominate new, innovative sectors of the world economy (Crescenzi, Rodríguez-Pose and Storper, 2007; Midelfahrt-Knarvik and Overman, 2002)

In this light, it is urgent that Europe get a much more precise handle on the potential trade-offs involved in pursuing goals of growth and innovation and those of convergence and equity. There is very likely an analogy to the models that are used to assess the overall benefits of regional integration in a world economy: if convergence is pursued via policies that attempt to spread existing economic activity, there will be a complex set of “creation” benefits (linkages of poorer to richer regions, with positive effects on output and income), there will be trade “diversion” costs (costs of de-agglomeration and loss of comparative advantage optimization); and there will be *complex dynamic, endogenous feedbacks of the two* (terms of trade effects as poorer regions enter the economy, especially, which may actually favour the richer regions in the end). In any case, the overall costs and benefits of convergence-through-redistribution strategies require much more careful estimation and the results may turn out to be counter-intuitive (Dupont and Martin, 2003; Martin 2005) and Europe needs to have a much more scientifically-rigorous approach to theorizing and measuring such effects as it considers such policies. At present, we do not have sufficiently precise data to determine the “right” target levels of these two complex phenomena in interaction, especially because doing anything to change either of them involves significant opportunity costs for the other if it requires significant redistribution of resources. This is therefore a major open area for policy research and formulation.

⁵ And in the European context at least, there has generally been a strong consensus, in contrast to other parts of the world, in favour of containing the spread of metropolitan growth

Reframing the question

A more interesting question, however, is suggested when we move beyond this way of conceptualizing the relationship between equity and development. Indeed, whilst agglomeration forces may restrict the potential for convergence across regions, they do not explain fully the gap in productive output between leading and lagging⁶ regions in the EU. Many lagging regions are not simply failing to maintain the pace of growth and development being achieved in leading regions, they are failing significantly to make productive use of the resources available to them. This is the problem of persistent (or durable) underdevelopment – i.e. of regions producing consistently and significantly below their production possibilities frontier. The more thorny question has to do with whether such certain uneven geographical patterns of development can have potentially perverse *dynamic structural* effects, by which we mean they lead to *divergent capacities to engage in development* between developed and less-developed regions, thereby contributing to the problem of underdevelopment. In more conventional terms, “capacities” refers to the probability that a place will be able to adjust its use of factors to move up the technology frontier or product space, and “divergent capacities” exist when there are durable differences in the rate at which this can be done by different territories. Such structural inequalities, for example, would become circular and cumulative when skilled human capital emigrates to leading regions, weakening innovative capacities in lagging regions, leading to adverse selection effects for the existing population and for political behaviours and institutions, in a “vicious circle” scenario.

This idea is not new, but it carries with it a steep methodological challenge, which is two-fold. On one hand, it would require us to define more precisely the probabilities that a place will, or will not, be able to move up the technology frontier/product space, and over what type of time horizon. On the other hand, it would require us to identify whether *active intervention* could improve these probabilities, and precisely how it would improve capacities to move up the technological frontier/product space, and which such capacities are amenable to improvement with intervention.

⁶ Defined here as regions with per capita GDP substantially below the EU average and/or regions with output and employment levels well below the EU average.

Sources of underdevelopment of capacities

The underdevelopment of capacities stems from a range of factors, the relative importance of which will vary across regions. Endogenous and Schumpeterian growth models point to problems of low levels of human capital and low capacity to innovate and assimilate innovations as factors limiting growth potential in lagging regions. New economic geography models emphasise insufficient scale and poor accessibility to markets. Other lines of thinking emphasize the gap in technological and innovation capacities between regions, sometimes attributed to differences in human capital levels, other times to differences in structural R&D/science capacity, and others to the quality of firms and entrepreneurialism. Still others consider that these differences might be generated, in the long-run, by differences in the quality of their economic, social, and political institutions. Much of the recent research on economic growth identifies institutions as a fundamental determinant of a region or a nation's economic growth trajectory. Many lagging areas are beset by problems of institutional sclerosis, clientelism, corruption, and pervasive rent seeking by durable local elites who have an incentive to block innovation (Acemoglu and Robinson, 2000). Informal institutions in these places are often similarly dysfunctional, resulting in low levels of trust and declining associative capacity, and restricting the potential for effective collective action. In such an environment where institutions are "inappropriate" (in either form or function), a region is likely to fail to break out of low-growth and low productivity traps. Weak institutions may have negative influence on the provision of public goods and on the development and delivery of policies aimed at improving skills or innovation capacity, or other potential sources of growth.

Such an environment of inappropriate institutions tends to have cumulative effects, leading to vicious circles of low growth. The poor conditions for investment in lagging regions may lead to a further concentration of economic activity in already existing development poles (through out-migration and selection processes), thus exacerbating trends toward divergence. And increasing levels of divergence often contribute to undermine an already weak institutional capacity and quality in lagging regions, entrenching underdevelopment.

From theory to logics of intervention

In light of the above, it can now be seen that there are two different challenges to be faced by cohesion policy. The first relates to "unevenness" and the fact that the factors driving economic growth appear to have a tendency toward agglomeration, concentrating growth in core, metropolitan regions (which are already more likely to be amongst the richer regions in the EU) at the expense of less populated (often rural) and peripherally-located ones. The second relates to "persistent underdevelopment," which has a number of endogenous causes, including the inability to generate or capture agglomeration as well as a tendency toward poor institutional environments.

In looking at the reasons for intervention to address unevenness and durable underdevelopment, it is useful to remember that cohesion policy has historically been assigned three objectives: equity (essentially equality of economic outcome and opportunity through redistribution), growth (reducing the underutilisation of resources), and legitimacy (promoting and preserving the legitimacy of the EU and its institutions). These create a complex EU policy field with a certain number of objectives that are not necessarily mutually consistent:

- ***Promoting growth versus reducing underdevelopment as policy objectives:*** Perhaps it is most difficult to justify the need of a cohesion policy on the grounds of reducing inter-regional inequalities. Since promoting higher levels of growth may require accepting geographical concentration (agglomeration) of economic activity, generally in the best-endowed regions, there are likely to be significant tradeoffs between aggregate economic efficiency and promoting convergence.
- ***Reducing underdevelopment in a growth-enhancing way – development of capacities:*** The case for intervention to respond to persistent underdevelopment has to do principally with the imperfect state of European integration, involving barriers to labour and capital mobility. In the absence of significant labour mobility (which is the case throughout most of the EU), it becomes more difficult for underdeveloped regions to lower their unemployment rates, especially as labour mobility is more limited for the less skilled, leading to a combination of brain drain and underemployment/unemployment for the worst off regions. Though capital mobility has increased, it is highest for activities that are relatively far away from the technological frontier, amenable to fragmentation and long-distance trade, and biased toward the use of less-skilled labour. Close to the frontier, embeddedness in innovation networks limits spatial mobility to circulation and integration principally among the already-developed regions. Taken together, the potential for aggregate growth in the Union may be prejudiced by resulting underdevelopment. Whilst the EU may want to take action to promote increased labour mobility, this is likely to take a long time to bear fruit and it may never reach North American levels. And increasing the innovative capacities of less innovative regions will require policies that go beyond mere opening of borders. The policy concerns of enhancing growth in underdeveloped regions (as opposed to the aggregate growth of the EU as a whole) and combating underdevelopment of these regions thus have some overlap, but once again, the opportunity costs to aggregate EU growth and welfare require careful assessment.
- ***Social development:*** within the European Union there is widespread consensus to provide a certain standard of living and public service provision to all citizens; welfare is widely considered to consist not just of income levels, or aggregate income, but of satisfaction of basic needs.
- ***Political stability:*** the presence of persistent and perhaps growing territorial inequalities has been the source of political tensions within many member states of the European Union.
- ***Legitimacy of the EU:*** persistent underdevelopment is considered by some to weaken the legitimacy of the Union, as it would indicate a failure to deliver on some of its core objectives to enhance the welfare of all its citizens.

The risks of intervention

A provisional case for intervention to address underdevelopment in a growth-enhancing way seems to emerge from existing theory and evidence, but – as we have been at pains to emphasize – this does not mean that it is costless or free of risk. Amongst the main risks that even a well-formulated such cohesion policy should consider are the potential for interventions to:

- Distort the efficient functioning of markets in the regions by favouring investments in activities that are inappropriate given the region's location relative to the technology

frontier. This is a particularly likely where regions adopt policies that are not based on localised sources of comparative advantage and / or where they attempt to replicate wholesale that which has been successful in other regions (e.g. the plethora of would-be “Silicon Valleys”).

- Crowd out private investment, leaving the region vulnerable to fall back into decline once public funding dries up.
- Shelter regions from markets, engendering them ever less able to adapt to changing external conditions.
- Create a dependency culture, where in the name of generating “structural change,” regions come to rely on transfers and experience convergence in consumption but persistent divergence in productive output and potential.
- Entrench existing elites by propping up ineffective, clientelistic institutions and fuelling rent extracting machines.

In addition, interventions – particularly those designed to generate innovative and adaptive growth – tend to be often vague, providing a blanket authorisation for spending on a wide range of – often ineffectual and poorly monitored – programmes and projects. *It is therefore critical that the objectives of addressing underdevelopment in a growth-enhancing way be sharply distinguished from: (a) convergence policies; (b) policies to address underdevelopment that have few community-wide growth-enhancing effects; (c) policies for social cohesion and meeting basic needs, that have few growth-enhancing properties. These are fundamentally different policy objectives.*

What is appropriate intervention? Types of territories, types of intervention

Addressing underdevelopment in a growth-enhancing way necessarily requires basing policies on the *many and varied types of underdevelopment dynamics* to be found in the EU’s regions. In other words, it cannot be done via a “one size fits all” policy framework or mechanically-applied criteria for intervention. As we have emphasized, there are major challenges to specify new criteria for intervention on underdevelopment and with the goal of building capacities that can enhance growth. To see this in more depth, we need to identify different types of territories, as well as different aims of intervention.

Different types of regions may be classified (broadly) as:

- Metropolitan regions at the core of the EU
- Metropolitan regions in peripheral and less developed regions of the EU
- Regions adjacent to metropolitan regions
- Peripheral regions with relatively large populations and urban centres
- Rural and peripheral regions with sparse populations

Different aims of intervention might include:

- Enhancing growth for the EU as a whole, possibly by supporting efficiency and innovation in leading agglomerations

- Spreading innovation / growth by facilitating spatial spillovers and linkages to highly-developed places
- Promoting innovation / growth in certain non-core regions that are deemed to have real medium-term potential to move up the technology hierarchy/product space
- Addressing underdevelopment through a combination of transfers, public goods provision, and institutional reform, in order to enhance long-term growth capacity of these regions, whose potential for moving up the innovation/product quality hierarchy is limited, but potential for increasing productivity is nonetheless considerable;
- Addressing equity for regions with limited potential to increase innovation or productivity, while admitting that it might have trade-offs (in the form of opportunity costs) to EU-wide growth and efficiency.

Thus, in the latter two categories, territorially targeting many policies that promote growth or combat certain dimensions of underdevelopment may, under certain circumstances, lead to lower aggregate growth, but a different territorial and social distribution of growth. If the aim of policy is to maximise overall economic growth in the EU, there is a strong case for intervention designed to improve the economic potential of individuals and firms, including in the wealthiest regions. Beyond this, many growth-enhancing policies should not be territorially-targeted. Many of the institutional factors that facilitate innovation and growth are best enabled at the national level, or in some cases the EU level. These include tax policies for R&D, laws and frameworks governing firm start-ups, venture capital markets, bankruptcy laws, cultures of success and failure, reforms of R&D and research systems, overall educational expenditures; in short, many of the factors that encompass national (and EU) systems of innovation (Lundvall, 1992; Nelson, 1993). In other words, the paradox is that policies for both enhancing overall growth – which is likely to favour overall agglomeration, in general, and certain EU agglomerations in particular, at least in the short run – and combating underdevelopment – which is likely to widen the palette of growth-generating regions and hence have an inter-national convergence effect – may better be achieved in a non-spatially targeted way. This, in combination with policies that reduce barriers to the mobility of capital and labour, should lead to firms and individuals being able to better choose productivity- or innovation-enhancing locations. The results of this type of intervention may vary across the EU. In old member states the likely result would be to reinforce inter-national convergence within Western Europe but to reproduce inter-regional differences. New member states that have successful agglomerations would probably enjoy a certain convergence tendency with EU averages, but this is likely to come at the price of exacerbating what are already high inter-regional inequalities. In contrast, new members without the medium-term probability of building core innovative regions are likely to have slower growth in their (sub-national) inter-regional inequalities, but lower overall convergence, if at all, towards the EU average.

However, in the cases of both growth-promotion and reduction of underdevelopment, even if territorial differentiation of policies (true subsidiarity) is not indicated, it might be that delivery of general-purpose policies will be most effective when it involves specific, territorial agencies. This is because many important institutions, including regional labour markets, education and training institutions, business associations and chambers of commerce, and individual research institutions, function primarily at the regional and local level. To take the previous example of policies to reform systems of innovation: many critical reforms must be enacted at large territorial scales; but significant parts of their implementation require the involvement of regional and local scales. Thus, there are two potential roles for regional and local institutions, that should not be confused: one is as an autonomous policy actor setting local, context-specific goals (true subsidiarity); the other is as an embedded delivery system for policies that are set at higher territorial scales, but cannot be implemented exclusively from those scales (multi-level governance and implementation). The task for policy-makers is to understand more precisely which interventions are appropriate at each territorial scale.

From a purely economic point of view, combating underdevelopment to enhance growth requires a mixture of multi-level governance and true subsidiarity. On economic grounds, the existence of technological and other types of frontiers means that the implementation of similar measures in different territories may yield widely varying results. One example of this is the presence of technological thresholds, below which the benefits of investments in high order technologies do not accrue. Regions far away from the technological frontier, typically located in peripheral areas, may thus achieve lower returns on investment in R&D than metropolitan regions located in the core of Europe. In contrast, peripheral regions may achieve greater returns by investing in human capital and in developing their capacity to assimilate innovations generated elsewhere. On institutional grounds, the quality of regional and local institutions tends to have a substantial impact on the degree to which interventions achieve their intended outcomes. Regions with poor institutional settings are generally ineffective in supporting innovative activity or assimilating knowledge and innovation acquired from elsewhere. As a result, policies of development promotion often fail to be implemented correctly or at all; or worse, rent seeking elites capture or distort the benefits of the intervention, entrenching their privileged positions and possibly exacerbating inequalities *within* the region. Arguably the EU may have been wasting money by giving, under the principle of subsidiarity, greater responsibility for cohesion interventions to institutions which lack the capacity to formulate and/or implement them effectively, or indeed who are controlled by elites with a *disincentive* to see through the changes intended by the interventions.

However, the question of how to intervene in order to improve institutions is not easy to answer. “Institution-building” is politically appealing and, as we have been at pains to emphasise, appropriate institutions are strongly suggested by theory and evidence as key to creating the capacities for economic development. The problem is that there are few systematic lessons from the literature as to how policy can improve or build institutions, and indeed, the widespread vagueness about the subject carries a risk of squandering public funds and effort on programmes that are likely to have little positive impact and possibly high opportunity costs. What we do know, with some certainty, is that there are several ways institutions can improve economic performance and reduce underdevelopment: (a) promoting openness to new ideas and agents (otherwise known as “absorption capacity”; (b) limiting clientelism and rent-seeking; (c) reducing transaction costs; and (d) under some circumstances, changing time horizons to improve “staying power” of parties where long latency periods are at hand. There is an additional, somewhat more controversial possible role for institutions as well, which is (e) changing expectations in the economy, and breaking out of the “adverse selection” dynamic which can emerge when the existing state of the economy and its actor-networks, if not highly performing, determines the “needs” to which institutions address themselves. This is the thorny matter of whether institutions can have the task of deliberately transforming an economy by looking well beyond its current development level. Note that objectives (c) and (d) may have a potentially uncomfortable relationship to objectives (a) and (b). Whereas (a) and (b) are about newness and openness, (c) and (d) are about staying power and coordination. The problem is that frequently, in Europe, policies favour the latter and often degenerate into excuses for rent-seeking clientelism. The utmost care must be taken to define precisely the criteria for these different policy objectives and to ensure that this does not happen. We do not have good estimates of the costs of transforming institutions in sub-national regions; nor more generally of raising capacities of persistently underdeveloped regions. But international evidence – from research on “success stories” such as Taiwan, Singapore, South Korea, Israel and Ireland – generally concludes that there are very high social rates of return on well-calibrated efforts in this regard.

Two other possible types of intervention can also be considered, for very opposite points in the “opportunity spectrum.” We noted above that there are certain regions that are relatively far from the technology frontier, but that may offer significant opportunities for moving up along it. In Europe, this is likely to be certain metropolitan areas in new member states, and certain provincial metro areas in the old members, though this is not a definitive list. Institutional change may not be enough to help them realize this potential, in light of powerful agglomeration dynamics at work. Can sectoral policies – which are essentially a form of industrial policy – complement institutional change and help these areas fulfil their potential? Targeted industrial policies have a generally poor record, and even more so at the regional level, in the form of “growth poles,” “competitiveness poles,” “high technology clusters,” and so on. But there are cases in international development – notably in East Asian regions such as Taiwan, Singapore and South Korea – where policies aimed at “jumping the technology queue” seem to have been successful (Amsden, 1989; Wade, 1990), so the question naturally poses itself as to whether such strategies might be applicable to certain EU regions. It is impossible to summarize the lessons from these strategies in any detail here, except to note that the conditions for succeeding with even such highly-focused sectoral strategies are quite restrictive and there are many histories of failure.

At the opposite end of the opportunity spectrum are those regions that have little short- or medium-term possibility for moving up the technological ladder, and which suffer from problems of severe underdevelopment. Institutional modernization, as discussed above, will be a significant part of the effort in these regions. But the EU's other goals may also provide justification for palliative policies such as income transfers and the provision of public goods that these regions, and their member states, are unable to provide for themselves. It should be considered, however, that such programmes need to avoid creating dependence, clientelism, or "crowding out" developmentalist policies from the agenda and priorities of actors.

A final word on how different forms of equity and cohesion inter-relate is necessary here. Social equity – i.e. inequalities between persons – and inter-territorial equity, are driven by different forces and the one does not map onto the other. Indeed, certain types of policies that promote inter-territorial equity may contribute to raising overall levels of inequality between persons, if they redistribute income from persons in lower income brackets in one place to the population in another, without changing the overall dynamics of income distribution or –depending on the targets of such income transfers – possibly even redistributing income upward in the social income distribution but horizontally in the territorial income distribution.

What might a more territorially nuanced cohesion policy look like?

We therefore recommend a cohesion policy that consists of a highly tailored set of interventions that are designed to address specific regional contexts of underdevelopment, on the one hand, and to promote growth (including certain forms of unevenness), on the other. In the following table, the term "institutional modernization" refers to the five (a) through (e) goals of institutional reform noted earlier.

Type of region	Likely location v technological frontier and agglomeration potential	Nature of interventions to support EU cohesion
Core metro regions (e.g. London, Paris, Berlin, Randstad, Hamburg, Milan, Copenhagen)	<ul style="list-style-type: none"> • On / near technology frontier • Strong agglomeration force 	<ul style="list-style-type: none"> • Growth promotion (via Lisbon Agenda) • Facilitating ongoing adjustment and innovation along the frontier
Regions adjacent to core metro regions and secondary metro regions in the EU's core (e.g. Yorkshire, Scotland, Tuscany, Midi-Pyrenees, Rhône-Alpes, Helsinki)	<ul style="list-style-type: none"> • Near the technology frontier • Moderate potential to realise agglomerations 	<ul style="list-style-type: none"> • Promotion of endogenous innovation development • Promotion of integration with core metro regions • Improving agglomeration potential (institutional deepening – e.g. encouraging venture capital, business services, R&D institutions, etc.) • Essentially, these are “extended metropolitan basin” policies
Metro regions (top of urban hierarchy) in lagging and peripheral areas (e.g. Lisbon, Athens, Warsaw, Bucarest)	<ul style="list-style-type: none"> • Moderately far from the technology frontier • Moderate potential to realise agglomerations in distinctive technology fields • Reasonable home market effect to promote scale 	<ul style="list-style-type: none"> • Institutional “moving up” – e.g. encouraging venture capital, business services, R&D institutions, etc.) – national level • Institutional modernisation and deepening – regional level <p>Possible targeted sectoral policies</p>
Underdeveloped or peripheral, often semi-rural regions (Calabria, Andalusia, Ipeiros, Podlaskie)	<ul style="list-style-type: none"> • Far from the technology frontier • Limited potential to realise innovative agglomerations • Limited home market effect for scale • Limited potential to generate significant productive activity in the short term 	<ul style="list-style-type: none"> • Public goods provision – to facilitate development and retention of human capital and home market • Productivity-enhancing interventions at the sector / firm level – tailored to exploiting local sources of comparative advantage • Infrastructure connectivity – to link with leading regions and become attractive to delocalising production activities • Institutional modernisation, especially for openness and coordination • Attract branch plants and “de-agglomerating” basic labour intensive activities
Relatively sparsely populated rural and peripheral regions (e.g. Basilicata, Extremadura, Alentejo, East Macedonia, Upper Norrland, Východné Slovensko)	<ul style="list-style-type: none"> • Far from the technology frontier • Limited potential to realise innovative agglomerations • Limited home market effect for scale • Limited potential to generate significant productive activity in the short term 	<ul style="list-style-type: none"> • Public goods provision <ul style="list-style-type: none"> – Quality (for equity purposes) – Mobility-promoting (e.g. education, housing policies that avoid mobility restrictions, etc.) – Maintain limited home market effects • Promoting social enterprise / social entrepreneurship • Institutional modernisation and deepening for social openness • Innovation in niche areas suitable to sparsely populated regions • Increasing education levels and connectedness to metropolitan regions for knowledge transfer and opportunity recognition

Conclusions: implications for governance and management of cohesion policy

The approach to cohesion policy outlined in this paper departs from the traditional approach to cohesion policy in three important ways. First, it places less emphasis on “convergence” (as defined by reducing the gap in GDP per capita across regions) and in its stead focuses on combating underdevelopment in a way that promotes both local and EU growth. Second, it eschews any idea of a uniform approach to regional development, recognising the need to develop interventions that are tailored to the contexts and needs of specific regions. Finally, it stresses the critical importance of building strong networks of modern, capable institutions in all regions in order to ensure development over the long run. These three changes to cohesion policy will have significant implications to the way cohesion policy is governed.

Perhaps most importantly, this approach implies redefinition by European institutions and member states and regions of the types of interventions to be authorized in different cases, the means to do so, and the respective roles of the EU, member states, and sub-national regions.

- ***Defining types of interventions:*** the tradeoffs between growth maximization through spatial unevenness and growth enhancement through combating underdevelopment must be rigorously assessed and defined. Concepts such as “adaptive efficiency,” “innovation,” “productive efficiency,” “growth enhancing development,” and so on will require precise definition. A further set of tradeoffs between these objectives and certain kinds of equity objectives – those necessary to assure *consensus minima* and to prevent “downward spirals,” must also be assessed. Criteria that trigger each type of intervention then would need to be developed.
- ***The means to do so:*** in all cases, because policies would need to be context-sensitive; their precise content would have to be determined through interaction between the EU and the regions. How, then, to ensure conformity to policy objectives? Greater conditionality is a must if the EU is to avoid the problems of elite capture, rent seeking, insider-outsider problems, principal-agent problems, or clientelistic and nepotistic practices that may arise in a more decentralised cohesion policy. Although this may prove problematic at first, given that the tradition in the EU is that of conditionality by consent, the EU already has the powers to impose greater discretion in the allocation of funds and to generate a credible threat in order to make sure that regions and territories abide by clear guidelines and follow set practices. Going forward, the “credible threat” must be shown to be credible.
- ***Conditionality requires effective monitoring and evaluation:*** given the diversity of interventions we should expect under this new approach, it is important that the Commission be able to monitor – ex ante, during, and after – the results of interventions, using rigorous criteria that prevent the possibility that greater complexity and flexibility in policy objectives simply open the Pandora’s Box of non-transparency and lead to abuse, rent-seeking, and equivocation. This, in our view, is the greatest danger of the approach we recommend. In order for this to work, there must be changes to both the way the Commission functions and, critically, to the nature of the relationship between the Commission (DG-Regio) and its member states and regions, with regard to cohesion policy. There must also be significant investment in training Commission officials who will monitor and national, regional and local officials who will propose and comply.

In light of the above, it will be *indispensable to couple a new substantive foundation for cohesion policy to new methods of implementation and evaluation*. Among the innovative measures that should receive serious consideration for context-sensitive policies of the sort advocated in this paper, we can cite several. On the new substantive foundation for cohesion policies, measures could include the establishment of a clear set of guidelines concerning both institutions and areas of intervention and a greater capacity by the Commission to provide technical support to local institutions in the design, development and implementation economic development strategies. On the new methods of implementation and evaluation side a better and leaner monitoring of performance through mechanisms such as peer to peer mentoring systems or random project monitoring could help improve the delivery and effectiveness of intervention. Random audits of performance are another good way to increase incentives for implementing agencies, and have the advantage of avoiding special preparation for evaluation. Such audits would need to be backed up by independent auditing authorities, whether within the Commission or in separate agencies. As a whole, this involves a more thorough development of a “check and balance structure” permitting the Commission or any designed independent auditing authority to fully develop its monitoring role without political meddling, as well as providing regions with a clearer set of guidelines of what is expected from the implementation of the policy. Transparency – “sunlight” – is essential for the smooth running of the system. Finally, policies could be built around incremental performance incentives rather than single block grants, such that progress toward objectives could be differentially rewarded. Obviously, audits and investigations should have the ability, and the incentive, to end policies and grants that are manifestly not reaching their goals.

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APPENDIX I

COHESION POLICY IN THE EUROPEAN UNION: GROWTH, GEOGRAPHY, INSTITUTIONS

LITERATURE REVIEW

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1. INTRODUCTION

Why do different places grow at different rates? Should we expect economic convergence across territories over time? Understanding the long-run path of economic growth and the factors which influence it is not simply a fundamental challenge for economists and other social scientists, but it also has practical and indeed critically important policy implications. For much of the period between the 1950s and early 1990s the potential for economic activity to exhibit spatial concentration, and subsequently the likelihood of long-run divergence across regions and countries, had been relatively overlooked by mainstream economists. The at-the-time dominant neoclassical and Heckscher-Ohlin models emphasised the dispersion of economic activity and economic convergence. The predictions of these theories were backed by contemporary empirical evidence: the post-war decades witnessed widespread economic convergence both at the national and at the regional level (Barro, 1991).

Since the 1980s – and especially since the beginning of the 1990s – the picture has become more complex. This has been particularly evident in widening *within* country (i.e. cross-regional) disparities. In attempting to explain the reasons behind this change, economics and other social sciences have made significant theoretical progress in understanding the economic and institutional factors that tend toward the agglomeration of economic activity.

The purpose of this literature review is to provide a basic overview of the traditional theories and state-of-the art academic thinking on the territorial implications of economic growth. Specifically, this paper aims to explore what growth theory has to say about convergence and divergence across places: to what degree can we expect market forces to lead to convergence (as measured, for example, in per capita GDP) across territories over time? What factors work against this? What are the implications of this for regional development and cohesion policies? This paper will look briefly at the traditional theories of economic growth – i.e. the neoclassical and Heckscher-Ohlin models – and their territorial predictions. It will then outline the contributions of more theories, including endogenous growth and new economic geography models, which suggest some of the factors that might lead to divergence across regions. Finally, we will look in more detail at recent theories and empirical research on the impact of institutions (both formal and informal) on territorial growth and development, and explore how institutions can be factors contributing to agglomeration, divergence, and either virtuous circles of development or persistent underdevelopment.

2. THEORIES OF CONVERGENCE AND DISPERSION

2.1. Neoclassical theory

Economic theories predicting the dispersion of economic activity have traditionally been dominant. Chief among these was the neoclassical approach (Solow, 1957; see also Solow, 1994). In this “growth accounting” framework, total output (GDP) of a country depends on its endowments of input factors (capital and labour), and “total factor productivity” (i.e. the specific way in which these inputs are combined). This theory is grounded on two basic assumptions: perfect competition and exogenous technology which increases the productivity of labour at an exogenous and constant rate. Economic growth is spurred via increases in savings (factor accumulation), which propel investment. Technology is exogenous and changes in a homogenous way across countries and regions, making capital accumulation and investment the single most important forces behind changes in the standard of living. As the input of capital per worker rises, constant or decreasing returns to scale are generated, which, in turn, lead to a decline in the marginal product of capital and to a steady convergence in per capita income across nations and regions. Under this framework, the dispersion of economic activity will happen more or less automatically, provided investment takes place, resulting in gradual convergence in economic outcomes across regions.

Econometric models based on this assumption of capital accumulation as the primary source of growth have, however, succeeded in explaining only a relatively small proportion of growth variances across countries and regions. The unexplained residual in neo-classical models – termed ‘technological change’ or ‘total factor productivity’ – has been found to account for between 30% and 50% of overall growth in different countries (Bennedsen, Malchow-Moller, and Vinten, 2005). This suggests that factors other than capital accumulation are critical to determining growth, and that total factor productivity is perhaps explained by more fundamental (‘deeper’) determinants.

2.2. Heckscher-Ohlin Model

The Heckscher-Ohlin model (Ohlin, 1933; see also Leamer, 1995) also predicts the dispersion of economic activity and long-run convergence, based on modified version of Ricardo’s theory of comparative advantage and trade which underscores the role of factor mobility. This framework assumes a two region, two sector economy (agriculture and industry) in which workers are free to move across regions. Under these conditions, cross flows of capital from high income to low income areas and labour in the opposite direction would eventually encourage the dispersion of economic activities, luring manufacturing firms into more distant locations and contributing to a factor-price equalisation process. The ultimate outcome is expected to be a reduction in territorial disparities – i.e. convergence. Although predictions of the Heckscher-Ohlin model are supported by evidence from international (particularly North Atlantic) trade in the late 19th and early 20th centuries when international factor prices and economic outcomes converged, more recent econometric tests (c.f. Leontief 1954) highlight significant weaknesses in the model, not least its requirement to maintain stringent assumptions around factor mobility and perfectly competitive markets.

3. ALTERNATIVE GROWTH THEORIES: EXPLAINING AGGLOMERATION AND DIVERGENCE

3.1. Endogenous growth theories: human capital, knowledge, technology, and innovation

Mounting evidence that economic convergence faces serious impediments has spurred economists to look for alternative models of growth. The first response came from the so-called ‘endogenous growth’ theory, developed by Romer (1986) and Lucas (1988). The basic tenet of this theory has been to bring technology and human capital inside the production function. In contrast to neoclassical assumptions, from an endogenous growth perspective technology and human capital are neither exogenous nor evolve at a constant rate; nor does growth occur in conditions of perfect competition. Instead economic growth is considered “an endogenous outcome of an economic system, [and] not the result of forces that impinge from outside” (Romer, 1994: 3). Technology, technological progress, and human resources – considered as the main forces “behind perpetually rising standards of living” (Grossman and Helpman, 1994: 24) – become critical independent variables in the model, and change differently in different territories according to the quality of human resources and to the amount of human and physical capital devoted to research and development (Romer, 1986; Lucas, 1988; Rebelo, 1991; De Long and Summers, 1991). The sway of human capital and technological progress on growth is seen to be greatest not under conditions of free competition – as was assumed in neoclassical growth models – but rather under imperfect market competition. For example, the possibility of protecting property rights via the patent system and earning monopoly rents on discoveries provide an important incentive for researchers, fostering further advances in technology, a better adjustment between supply and demand and, ultimately, economic growth (Romer, 1990; Grossman and Helpman, 1991; Aghion and Howitt, 1992; Young, 1993).

What makes knowledge a unique factor of production is that it generates increasing returns because it acts as a quasi public good, able to be (more or less) costlessly reused once created. Investment in human capital and in technology also generates knowledge spillovers. However, the transfer – or spillover – of knowledge in reality faces strong spatial boundedness. According to Audretsch and Feldman, “knowledge spillovers do not [...] transmit costlessly with respect to geographical distance” (1996a: 256). Numerous empirical studies have shown that the returns linked to the transmission of knowledge are geographically bounded and suffer from important distance-decay effects (Jaffe, Trajtenberg and Henderson, 1993; Narin, Hamilton and Olivastro, 1997; Howells, 2002). This is particularly true of tacit while ‘codified information’ can be transmitted over increasingly large distances, ‘tacit’ knowledge is geographically bounded – or in Morgan’s (2004) words “locationally sticky” – and is also related to context and culture (Gertler, 2003). Proximity and location are thus important factors to be considered in the knowledge production function (Feldman, 1994; Audretsch and Feldman, 1996b). The main consequence of this factor is the tendency of knowledge and innovation to geographically agglomerate, with spillovers from research leading to the creation of self-reinforcing virtuous circles of accumulation and to the genesis of significant multiplier effects in technologically advanced areas (Verspagen, 1997).

Neo- Schumpeterian variants of endogenous growth models focus on technological change as the main locus of growth, with innovation as the core component of

technological change. This gives primacy to the role of human capital and of knowledge creation and assimilation. Models of growth under these theories contrast sharply with those of traditional neoclassical economics, emphasising the importance of change and adaptive efficiency rather than the standard optimal allocation factors. As such, the capacity of places to react to technical changes – to create and absorb new knowledge and transform it to productive ends – will determine their long-run growth rates. This has serious implications for the idea of any natural convergence of economies. The potential for the concentration of economic activity and for divergence under these models becomes more evident when issues such as the minimum thresholds of R&D and of appropriability of technology, are considered. Neo-Schumpeterian models argue that R&D investment exhibits strong scale economies, both internal and external, making the relationship between investment in R&D and economic growth non linear. Thus, returns from R&D rely heavily on the concentration of R&D centres in limited spaces, on the quality of the local human capital (Audretsch and Feldman, 1996a; De Bondt, 1996; Engelbrecht, 1997), and, above all, on the amount of investment (Scherer, 1983; Dosi, 1988). Hence, limited and/or dispersed investment in R&D in lagging areas may not yield the returns that would normally be expected, as these R&D projects may lack the adequate dimension to conduct competitive research, and local scientists and researchers are likely to be more isolated than in advanced technological centres. In addition, the local economic tissue may lack the capacity to successfully both to absorb the fruits of technological progress realised elsewhere, and to achieve the passage to innovation themselves (Rodríguez-Pose, 1999).

3.2. The new economic geography approach: transport and scale economies

Another set of new growth theories which have helped to explain the potential for economic concentration and divergence is the so-called ‘new economic geography’, which developed almost in parallel with that of the endogenous growth approaches. The new economic geography approach predicts the increasing concentration of economic activity based on factors such as the interplay of agglomeration economies, backward and forward linkages, critical threshold and market size and , above all, falling transport costs (Krugman, 1991). Under a new economic geography framework, if we assume a two region, two sector model – with cities specialised in manufacturing and services, and rural areas in agriculture – as trade in manufacturing increases, firms and industries are no longer subject to the maximum size constraint imposed by the limited demand of domestic rural markets. They can now sustain growth and agglomeration, by servicing foreign demand, and making use of cheaper foreign inputs. Thus, the incentive to agglomerate increases alongside the increased market potential that cities enjoy (Puga, 1999; Paluzie, 2001). As a result, opening to manufacturing trade tends to increase the incentives for firms, and workers, to concentrate in core areas, and in larger rather than in smaller cities, thereby fostering greater within-country disparities. Increases in agricultural trade, however, may have the opposite effect, promoting the dispersion of economic activity and regional income convergence. As agriculture is tied to the land, agricultural inputs are less mobile in comparison to those of manufacturing. Under these circumstances, when agricultural trade develops at the expense of manufacturing trade, agricultural workers benefit, while manufacturing workers become relatively poorer. As this type of trade favours agricultural workers and the owners of land, and they tend to be more equally geographically distributed than manufacturing workers, the increase in income they enjoy acts to reduce regional income disparities (Paluzie, 2001). Concurrently, the relative contraction of the manufacturing sector, which is concentrated in richer regions, brings these more

prosperous regions closer to the regional income average – again reducing regional disparities (Pack, 1988; Edwards, 1993; Zhang and Zhang, 2003).

3.3. Metropolitanisation theories: specialisation, creative class, and ‘face-to-face’

Another set of theories which draws upon the underlying premises of endogenous growth models focuses on the unique geography of metropolitan areas, and suggests that not only is economic activity prone to agglomeration, but certain important high growth activities are more likely to concentrate in the largest metropolitan areas. The revival of Jacobs’ (1969) theories focusing on the specialisation vs. the diversification of cities is one such approach that reinforces the agglomeration trends suggested by endogenous growth models. The reason for this is linked to city-size. Diversified cities tend to be larger while specialised cities are generally smaller in size. Whereas both diversified and specialised cities can in principle perform equally well, the potential risks for specialised cities are greater. These risks are related to their lower innovative capacity and their greater exposure to rise and fall patterns of specific sectors of specialised cities (Duranton and Puga, 2000).

Following also Jane Jacobs’ (1969) tradition, Richard Florida (2002) has become extremely influential by putting ‘creativity’ at the centre of economic dynamism. Whereas at the beginning of the 20th century factors such as the location of raw materials or a good natural endowment mattered for the location of economic activity, in today’s world innovation and growth are fundamentally associated with the presence of ‘creative’ people. According to Florida, ‘creative’ people are characterised by their alternative lifestyles, their relaxed dress codes, flexible working arrangements and leisure activities focused on exercise and extreme sports, and their preference for ‘indigenous street level culture’. For Florida (2002) the future of local economies relies on attracting and retaining members of this ‘creative class’, comprising those who work in sectors such as technology, media and entertainment and finance and whose activities embody creativity, individuality, and difference. And, he argues, there is no better place to achieve this than in diverse, tolerant, and cosmopolitan cities that provide the set of amenities the ‘creative class’ is looking for. However, all such amenities-based theories of urban growth suffer from an inability to demonstrate whether amenities are “chicken” or whether they are “egg.” Indeed, there is much reason to believe that such creative or innovative people follow jobs, rather than the Florida scenario of such people seeking amenities and then economic development (jobs) following them. In the long-run, such interactions are highly complex, with many feedback loops, but as yet it is unclear whether policy that builds up quality of life is a real generator of economic development, or whether it is the other way around (Storper and Scott, 2009).

Finally, Storper and Venables (2004) have stressed the importance of about face-to-face contact – or ‘buzz’ – in facilitating the transfer of knowledge, particularly tacit knowledge. They argue that backward and forward linkages, access to markets, the clustering of workers, and technological interactions are not the only factors determining agglomeration. Any explanation of why economic activity is agglomerating more and more is incomplete without what they call the “most fundamental” aspect of proximity: namely face-to-face contact (Storper and Venables, 2004: 352). In this approach, face-to-face interaction is economically efficient, as it helps solve incentive problems, facilitates socialisation and learning, and provides psychological motivation. And nowhere is face-to-face contact more likely to take place than in large and diversified cities. These cities – which Storper

and Venables (2004) define as ‘buzz cities’ – put highly-skilled and motivated individuals in contact with one another, contributing to making people in a ‘buzz’ environment highly productive and encouraging cross-fertilization between sectorally-specialised networks.

Thus, these recent theories not only reinforce the contention economic activity will tend to concentrate in core regions at the expense of the periphery. But they go beyond that, implying that even amongst regions in the core, large, diversified metropolitan areas may experience faster growth, due to having the best conditions to support innovation, and thus higher order economic activity.

4. INSTITUTIONALIST THEORIES

4.1. Introduction: institutions and economic growth

Across social science disciplines, efforts to better explain the patterns of economic growth have crystallised recently around the study of how institutions, both formal and informal, structure and constrain the behaviour of economic agents and thus act as ‘deeper determinants’ of long-run growth. This follows on from the neo-Schumpeterian emphasis on adaptive efficiency. In a relatively short time, researchers have made considerable progress in showing that formal societal institutions ‘matter’ more for economic growth than traditional factor-endowments (Hall and Jones, 1999; Acemoglu, Johnson, and Robinson, 2001; Vijayaraghavan and Ward, 2001; Rodrik, Subramanian, and Trebbi, 2004). Similarly, research on trust (Knack and Keefer, 1997; Zak and Knack, 2001; Beugelsdijk and van Schaik, 2004; Knack, 2003; Bengtsson, Berggren, and Jordahl, 2005) and social capital (Putnam, 1993, 2000; Beugelsdijk and van Schaik, 2005) suggests that informal as well as formal community-level institutions may also have a significant impact on growth.

But what exactly is meant by *institutions* and how do they impact regional growth patterns? Basic versions of neo-classical economics have no need for institutions, instead assuming that utility maximising individuals satisfying individual preferences result in efficient and socially optimal outcomes. However, most economists now accept that in the real world there are serious barriers to such outcomes: imperfect information opens up the possibility of moral hazards; imperfect property rights create externalities and allocation problems; and imperfect reversibility and sunk costs can create enforcement and commitment problems. Hence, “humanly-devised constraints” (North, 1990: 3) are necessary to establish the ‘ground rules’ and structure interaction amongst preference-satisficing individuals. These institutions may be of a political (constitutions, governance structures, checks and balances), economic (property rights, markets, regulatory structures), or social (formal groups and associations, norms) nature. ‘Good’ or ‘appropriate’ institutions provide incentives for productive activities which achieve an optimal balance between the private and the social return; ‘poor’ or ‘inappropriate’ institutions, by contrast, provide the incentive for actors to engage in non-productive activities, with high private returns and low (or negative) social returns – e.g. rent seeking. A growing consensus in the literature contends that the meta institutions of property rights and the rule of law are most important (Rodrik, Subramanian, and Trebbi, 2004; Acemoglu, Johnson, and Robinson, 2006). Moreover it has been suggested that it is the enforcement characteristics of institutions, not the nature of institutions themselves, determines the quality of

governance across societies (North, 1990; Acemoglu, Johnson, and Robinson, 2005; Kaufman, Kraay, and Zoido-Lobaton, 1999; LaPorta et al, 1999). It should be noted, however, that the research on governance has focused on large-scale cross country studies and, as such, its findings may be more effective at illustrating the substantial differences in institutional settings between many developed and developing countries than at explaining the impacts of more subtle differences in governance that may exist, for example, between two EU countries.

We can identify three principal channels through which institutions might enter into the production function to shape patterns of economic growth. First, institutions impact the efficiency of economic exchange through their effect on transaction costs. Second, they impact the rate of technical change in the economy, specifically through processes of innovation. Finally, institutions have significant impacts on socio-political processes, influencing individual participation and confidence, conflict resolution, and ultimately the speed and efficiency by which territories adjust to changing external circumstances.

In defining institutions, North (1990) and Williamson (1985) are careful to include formal rules and informal constraints (as well as the enforcement characteristics of each). Indeed, whilst formal and informal institutions operate quite differently, they serve the same function of facilitating collaboration, exchange and collective action. Formal societal institutions do it by establishing and enforcing transparent ‘economic rules of the game’ (North, 1996), whilst informal constraints (norms, conventions, mores, and traditions) do it through reputation, trust, and sanction.

Many of the agglomeration effects of the endogenous growth and new economic geography theories are reinforced by the predictions of these recent institutional theories, which suggest that ‘good institutions’ may promote economic concentration, whilst inappropriate institutions (in form or practice) are a significant factor in persistent underdevelopment. A number of studies have unearthed a close link between ‘good’ institutional conditions or the presence of strong, active communities and the agglomeration of economic activity. Qualitative research on clusters and industrial districts (e.g. Piore and Sabel, 1984; Kristensen, 1992; Semlinger, 1993; Burroni, 2001), ‘learning regions’ (Gertler, Wolfe and Garkut, 2000; Henry and Pinch, 2000; Bathelt, 2001), and regional systems of innovation (Cooke and Morgan, 1998) stresses how complex institutional and governance arrangements create the conditions for economic activity to thrive and ultimately – as good institutional conditions are hard to replicate – to agglomerate. Most of this research has focused on the European environment and thus helps explain (if only qualitatively) how differences in institutional structure and function across relatively similar European regions can shape quite different economic outcomes. Factors such as the close interaction amongst local political actors, the presence of a functioning civil society, regional administrations, employers organisations and trade unions – in what Trigilia (1992) calls an ‘institutionalized market’ – favour agglomeration and economic growth. Well-developed traditions, strong trade unions co-operating with employers, and nationwide institutions work in a similar direction. Conversely, the absence of poles of collective action often restricts the scale and scope of economic activity, leading to the formation of vicious circles of low growth. The lack or relatively little importance of collective organisations in social life, the presence of clientelistic practices, or the governing of social activity by a narrow, durable local elite (often characteristic of relatively remote and backward places) facilitates migration and discourages economic activity (Baccaro, 2002).

4.2. Societal institutions and governance

Since Knack and Keefer (1995) and Hall and Jones (1998) showed that incomes, productivity, and growth across countries can be explained by differences in institutions and government policy, most of the research linking institutions with long-run economic growth have focused on the role of formal, high-level societal institutions and the governance processes through which these institutions intermediate in everyday economic and social exchange. Whilst there remains considerable debate over the validity of the empirics and the problem of endogeneity (c.f. Glaeser et al, 2004; Tabellini, 2005), studies have shown consistently a strong relationship between institutions such as property rights and the rule of law (Acemoglu and Johnson 2004; Vijayaraghavan and Ward 2001; Rodrik, Subramanian, and Trebbi, 2004) and economic growth at a broad cross-country scale. The existence of standard ‘rules of engagement’ backed by a stable and robust rule of law reduces transactions costs by lowering uncertainty and facilitating the mutual trustworthiness of individual economic agents. Such an environment also facilitates technical progress by providing the appropriate incentives for innovation through patent, trademark, and other intellectual property laws as well as competition law (North 1990; Aghion and Howitt, 2005). However, whether the results of these studies can be generalised to explain the impacts of more subtle differences in institutional functioning, for example within a European context, is debatable.

Finally, institutions are also seen to shape economic outcomes indirectly through political channels, in terms of both policy and the performance of the government bureaucracy. Indeed, much of the literature (Tabellini, 2005; Acemoglu, Johnson, and Robinson, 2005; Steinmo, 2001) argues that this is the fundamental channel through which institutions determine economic outcomes. Formal rules can level the playing field and ensure that participation is open to all. Where groups compete for power, these societal institutions can mitigate conflict by protecting minorities, guaranteeing basic freedoms, and facilitating cooperation for public goods provision. Equally they can be used to close off political competition and suppress participation from some groups within society. A large number of studies (Easterly, 2000a; Rodrik, 1998; Persson, 2001; Alesina, Baqir, and Easterly, 1997; and Easterly, 2000b) have validated the role of institutions in mitigating or facilitating distributional conflict, and through this, economic growth. Others (La Porta et al 1999; Stasavage, 2000; Aghion, Alesina, and Trebbi, 2002) have shown that openness of political and economic participation, political competition, and the existence of ‘checks and balances’ are critical for institutional quality and economic growth. Acemoglu, Johnson, and Robinson (2005) suggest that the conditions for economic growth emerge when political institutions allocate power to groups who maintain certain fundamental institutional pre-conditions (e.g. property rights protection, constraints on power holders, strong rule of law to limit rent-seeking).

Recent literature suggests that it is the way in which institutions handle societal conflicts – or questions over the distribution of resources – that ultimately determines their ability to adjust to changing economic realities, and thus shapes long-term growth rates. Rodrik (1998) argues that the strength of conflict management institutions (defined as political parties, elected representatives, free speech) determines the degree to which external shocks will diminish societal productivity by triggering distributional conflicts, generating uncertainty and diverting activities from productive to redistributive ends. Acemoglu, Johnson, and Robinson (2005) show how the distribution of resources in an economy determines

political power, which in turn shapes the form and function of political and economic institutions.

But research indicates that societal institutions are also a double-edged sword. First, formal rules are high costs ways of achieving cooperation, relying on the ongoing development and maintenance of institutions for monitoring and enforcement. If the main channel for enforcing a contract is through a lawsuit, the cost of exchange will be exceedingly high. Some authors have noted that a reliance on formal mechanisms of conflict management, like contracts, may actually block the formation of trust (Molm, Takhashi, and Peterson, 2000). This suggests the risk of a ‘high transactions cost trap’, whereby interpersonal relations become bound and reliant upon an ever denser and more rigid web of formal rules and structures. In the political arena, an over reliance on formal rules and institutions can lead to unchecked bureaucracies which not only have been shown to reduce the efficiency of government performance, but also create within them opportunities for rent seeking (Schleifer, 2002)

Second, ‘poor’ institutional environments are likely to be persistent. Rules and their enforcement do not emerge spontaneously but are established through political processes. This inevitably means there are winners and losers. And the winners of political processes are the ones in the position to shape the evolution of these same institutions. As the current elite tend to control political institutions, they therefore have the incentive to ensure that these political processes maintain the status quo (Acemoglu, Johnson, and Robinson 2006); or as North (1996: 3) put it “institutions are created to serve the interests of those with the bargaining power to create new rules”. Acemoglu, Johnson, and Robinson (2002) show how elite capture of institutions can act as a block on innovation (and therefore growth), as elites attempt to enforce the status quo when there is a risk that innovation may confer advantages to competing groups. Thus path dependence of economic institutions is likely to be the norm. This has significant implications on the growth and convergence potential of persistently underdeveloped regions. Indeed, it suggests that attempting to implement policies within existing institutional environment may be doomed to fail, and that only by addressing the institutional environment itself will it be possible to achieve a higher growth trajectory.

Finally, not only does the existence of a ‘good’ or ‘poor’ institutional environment establish a specific context for policy, but recent literature suggests that what constitutes a “good” institution is itself context dependent. Whilst basic parameters like property rights, the rule of law, and political competition have been identified, much of the literature argues that it is the *de facto* implementation and enforcement rather than the *de jure* policies themselves that matter (Easterly, Ritzen, and Woolcock, 2006; Acemoglu, Johnson, and Robinson, 2005). For example, Rodrik, Subramanian, and Trebbi (2004) point out that, despite their findings on the importance of property rights, investment levels are higher in China where property rights are absent than in Russia, where formal institutions are in place. As such, local context is critical. This has significant implications for promoting investment in underdeveloped regions through policies designed to reform local institutions. Francois (2006) argues that transferring institutions from one place to another is by no means a guarantee of success, and that a better indicator is actually the degree to which a territory has been successful with alternative institutions in the past. Glaeser et al (2004:1) note: “poor countries often get out of poverty through good policies, often pursued by dictators... and subsequently improve their political institutions.” This may be because, at certain levels of poverty and inequality, the costs to compensate the losers from redistributive reforms is too great, making it more likely that reforms would be pursued in what most of the literature would label a ‘bad’ institutional environment (Aghion, Alesina, and Trebbi, 2002) without sufficient constraints on the executive or widespread political participation. Most recently, Rodrik (2008) argues that the appropriate institutions for persistently underdeveloped territories are, far from being ‘best practice’, more likely to be ‘second best’ institutions – i.e. those that are tailored context-specific market and government failures that cannot be removed in the short term. For example, he suggests that in certain environments entry barriers (e.g. licensing and registration requirements) which provide rents to incumbents may be desired, as these rents may be “a necessary condition for adequate levels of entrepreneurship to emerge in non-traditional economic activities (Rodrik, 2008: 5).

4.3. Networks, social capital, and ‘new economic spaces’

It is not only formal, societal institutions that have an impact on growth. Recent research on networks and social capital has underscored the importance of informal and community-level institutions in facilitating economic development, suggesting the strong likelihood that economic performance may vary considerably across regions depending on their local institutional environment. For example, Putnam’s work on Italian social capital (1993) shows how differences in levels of community institutions between Northern and Southern Italy are at the base of their sizeable income inequalities. Other research has found that different institutional proxies of community, such as group membership and political participation, help explain differences in economic performance both at the international level (Knack and Keefer, 1997; Zak and Knack, 1998; Guiso, Sapienza and Zingales, 2004) and within Europe (Beugelsdijk and van Schaik, 2001); or that, conversely, excessive divisions within societies limit their growth potential (Easterly and Levine, 1997). Empirical research suggests that a broad consensus may be emerging on the positive association between trust and economic growth. Since Knack and Keefer’s (1997) social capital study found that a 15% increase in trust is associated with a 1% increase in GDP (an impact nearly as great as that for primary education) further studies (Zak and Knack, 2001; Beugelsdijk and van Schaik, 2004; Knack, 2003; Bengtsson, Berggren, and Jordahl, 2005) have upheld the link between generalised trust and growth. Whilst significant concern around the empirics both of trust

(Glaeser et al, 2000; Beugelsdijk, 2005) and associationalism (Sobel, 2002; Durlauf, 2002; Routledge and von Armsberg, 2003) remains, strong theoretical and qualitative research supports the positive economic impacts of networks and social capital.

Informal aspects of communities – interpersonal networks, norms, and sanctions – play an important role in coordinating economic exchange and minimising transactions costs by establishing trust-based relations. These help to overcome principal-agent dilemmas and free riding, particularly in complex and uncertain exchange environments. Research has shown that the nature of local social relations can result virtuous circles of trust or equally in a ‘low trust trap’ (Rothstein and Uslaner, 2006). Social capital has also been shown to play an important role in facilitating innovation, by increasing levels of collaboration and improving the efficiency of such engagements. A number of authors (c.f. Cooke and Morgan, 2000; Saxenian, 2002; Djankov et al, 2004) have unpacked the role of social networks in promoting information dissemination across of these activities, from searching for technical partners, employees, and finance to facilitating collaboration, to gathering critical information on markets. The research on new industrial districts, which primarily focuses on Western Europe and North America, emphasises the importance of inter-firm cooperation (c.f. Beccattini, 1990; Antonelli, 1994; Farrell and Knight, 2003) and ‘untraded interdependencies’ (Storper, 1997) in driving the success of regions as diverse as Silicon Valley, Baden-Württemberg, and ‘Third Italy’. These latter two concepts in particular are built on the flow of tacit knowledge through informal associations and through the norms and routines of groups and networks, which are seen to thrive where community bonds are strong. Related work on localised knowledge spillovers (c.f. Saxenian, 1994; Scott and Storper, 2003), regional systems of innovation (c.f. Lundvall, 1996; Malmberg, 1997; Malmberg and Maskell, 1997), and learning regions (Storper, 1995; Cooke and Morgan, 1998), has shown how the interaction community-level institutions (formal and informal) shape economic growth, particularly through processes of knowledge creation and innovation.

Substantial advances to the concept of ‘relational assets’ in recent years have shed further light on the reflexive and evolutionary nature of institutions and agents across space (Bathelt and Glückler, 2003; Bathelt, 2006), the importance of local proximity in knowledge transmission (Leamer and Storper, 2001; Gertler, 2003; Storper and Venables, 2004), and the geography of learning and innovation (Gertler, 2001; Bathelt, Malmberg, and Maskell, 2004; Bathelt, 2005). Geographers have developed complex spatial and network-based analyses of trust (Ettlinger, 2003; Murphy, 2006), and have analysed how networks, trust, and reputation shape processes of agglomeration (Glückler and Armbruster, 2003; Glückler, 2007).

There has been a vigorous debate between those who believe that spatial proximity is critical to network functioning (and therefore the importance of agglomeration), and those who believe that long-distance relationships provide a functional equivalent in economic coordination. The complex institutional environments that support industrial districts, clusters, and other 'new economic spaces' tends to support agglomeration and rely, at least to some degree, on scale economies at a territorial level. Cooke and Morgan (1998), for example, argue that the regional scale is essential to the efficiency of interfirm relations, formal governance institutions, and the 'collective social order' when it comes to innovation. Others (Leamer and Storper 2001; Gertler 2003; Storper and Venables 2004) stress the importance of local proximity in underpinning networks that enable knowledge transmission. Yet a number of academics stress the importance of delocalised networks, opening up the potential for growth in the absence of agglomeration. This has included research on the role of extra-local linkages for knowledge creation (c.f. Grabher 2002; Scott 2002; Boschma 2005) and on communities of practice (Amin and Cohendet 2000). And others (Grabher and Ibert, 2006; Bathelt, Malmberg, and Maskell, 2004; Boschma, 2005) describe complex territorial processes, argues that practices of knowledge are shaped by different types of networks operating at different spatial scales. In such 'relational' environment, determining the appropriate mix of institutions to facilitate growth potential is likely to be highly context-dependent, taking into account both local actors, economic structures, and the specific sectors involved. Amin (2004), for example, argues that spatially-delimited institutions are no longer relevant to political processes in a society of "transnational flows and networks".

Finally, it is important to recognise that the fundamental institutional mechanisms which establish and sustain effective local communities, including closure, solidarity, and norms and sanctions, can have restraining or even harmful socioeconomic impacts on wider society as well as within communities themselves (Levi, 1996; Portes and Landolt, 2000). Indeed, the very fact that communities form around identities (be they religious, ethnic, professional, or interest-based) indicates that in-group and out-group distinctions are fundamental to maintaining group solidarity. Putnam's (1993) concept of bonding and bridging social capital highlights the potential downsides of closure, making a distinction between social capital based on tight networks of solidarity and those that are cut across more basic, traditional relationships to connect for more 'instrumental' ends. Whilst Putnam saw benefits of both forms of social capital, only the non-exclusionary bridging form was seen to facilitate sustainable societal outcomes. This has been supported by theoretical work from a number of other scholars (Fukuyama, 2000; Dasgupta, 2005; Poulson and Svendsen, 2005) who show that bonding alone severely hinders the realisation of scale economies, restricts access to key information to support innovation and upgrading, and prevents positive externalities from spilling over to the wider society. This limits the potential to generate economy-wide productivity improvements and leads to a "downward levelling of norms" (Portes and Landolt, 2000:11). Where bonding communities result in incomplete representation and social capital is closed within an elite community, corruption and clientelism becomes the norm. A substantial body of research (c.f. Easterly and Levine, 1997; Alesina, Baqir, and Easterly, 1997; Easterly, 2000a) has shown that where societies consist of polarised groups, socioeconomic outcomes suffer as communities divert productive resources to engage in rent extraction aimed at ensuring that the fruits of economic growth remain within the group. Finally, it is worth noting that many of the virtuous circle effects of trust-based relationships

noted in the social capital literature carry equally negative inertia in an environment of distrust.

4.4. 'Institutional thickness'

Combining different institutional approaches, some analysts indicate how having a high density of closely-knit institutional networks – called 'institutional thickness' by Amin and Thrift (1995) and 'institutional capital' by Healey (1998) – is a key condition for economic development. In this 'third way', combinations of 'intellectual capital' (i.e. knowledge resources), 'social capital' (trust, reciprocity, cooperative spirit and other social relations), and 'political capital' (capacity for collective action) within these institutional networks determine a territory's potential for development.

These approaches argue that the greater the density of complex institutional networks within a given territory, the greater the potential for higher growth and development (Amin and Thomas, 1996; Morgan, 1997; Cooke and Morgan, 1998). This suggests that regions with more economic and institutional scale gain at the expense of those peripheral and backward regions that lack institutional scale and capacity. On the other hand, the concept is fundamentally aimed at addressing divergence and promoting endogenous growth in lesser-developed regions by unlocking the "wealth of regions" (Amin, 1999). What is certain is that this approach clearly indicates the need for policies and institutional forms that are tailored to specific territories, and which take into account their unique social structures, networks, norms, and actor rationalities (Amin, 1999). This suggests the importance for devolution of both policy development and implementation, and the use of associative models of governance.

However, the other frameworks on institutions suggest that all thickness is not equivalent, since some regions might have many institutions of a rent-seeking or inefficient type, while others might have a better balance between those of community and society, hence achieving better growth-inducing and innovation-stimulating effects. The notion that all institutions are not alike in their economic effects on relations of coordination is supported throughout the institutionalist literatures. Thus, any emphasis on 'building institutions' must be attentive to avoiding the potentially negative effects of institutions, and especially on avoiding the possibility of lock-in and limiting adaptive flexibility of an economy.

Conclusion

Substantial progress has been made in understanding the sources of uneven economic development at the regional, national and international scales, but no single theory or disciplinary perspective is up to the task of such understanding. This literature review suggests that traditional theories of economic growth have been complemented by three principal advances in theory and measurement: economic geography, and especially theories of the relationship between transport/trade costs and spatial agglomeration; economic growth theories, and especially those that focus on the sources of innovation and knowledge-creation in the economy, and on their territorial distribution; and institutionalist theories, which centre on the capacities of economies to absorb knowledge and innovate, to organise themselves efficiently, to adapt to change, and to avoid lock-in by inefficient practices or rent-seeking interest groups. Taken together, they go a long way toward helping us understand both the powerful forces for convergence among territories, and the endogenously-generated barriers to such convergence. Collectively, while they draw on some of the insights of standard models of production, comparative advantage and trade, they go well beyond these models to suggest foundations for economic development policy that are considerably different from those that emerge from the standard models.

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