

2 Theorising regional economic performance and the changing territorial division of labour

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Introduction

The recent geographical literature is replete with conceptual models designed to characterise geographical systems of production, explain their structure and account for their relative economic performance. A fundamental aim of this literature is to identify and explain the characteristics and the diversity of economic landscapes and their evolutions, drawing largely on qualitative, case study methodologies. What has resulted is the identification of a range of spatial categories and a number of core causal mechanisms (see Figure 2.1). Amongst the former are industrial districts (Marshall, 1961; Becattini, 1991), clusters (Porter, 1990), new industrial spaces (Scott, 1988), local productive systems including areas of productive specialisation and system areas (Garofoli, 1991), worlds of production (Storper and Salais, 1997), milieux innovateurs (Aydalot, 1986), regional innovation systems (Cooke and Morgan, 1998) and learning regions (Maskell and Malmberg, 1999; Morgan, 1997; Hudson, 1999). To explain them, and to explain their reciprocal impact on development, three main groups of causal mechanisms are examined, with the relevant mechanisms varying across the different spatial constructs. First there are theories rooted in a traditional concern with resource endowments that emphasise the role of generic and specific assets, the competence and capabilities of an area's inhabitants and the role of sunk costs (Courlet, 2001; Pecqueur, 2000; Clark and Wrigley, 1997). Second there are theories that emphasise the role of firm structures and in particular of inter-firm and inter-agent relationships drawing on neoclassical transaction costs (Scott, 1988), untraded interdependencies (Storper, 1995), trust (Humphrey and Schmitz, 1998), network organisation and governance, institutional thickness (Amin and Thrift, 1994) or on ways of identifying the local rootedness/embeddedness of social interaction. To the latter one can add the more quantitatively-oriented research of some political scientists interested in the impact of institutional performance and the character of civil society on the performance of regional economies (see, for example, Putnam et al, 1993). Third there are theories that emphasise the role of innovation, systems of innovation, knowledge, individual and collective learning and creativity. As a result of interpretations of ideas associated with theories of regulation, institutional economics, or evolutionary sociology, these mechanisms are seen however as operating in a series of specific historical contexts and of comprising a range of historical development models that derive from a synthesis of changing technological, economic, institutional and cultural factors. Storper and Salais' regional worlds are for example possible action frameworks, comprising economic and non-economic forces such as institutions, cultures and social practices that take the form of conventions - largely implicit and routinized rules of action designed to deal with coordination problems.

Of these spatial categories, however, only the industrial district concept has deep historical roots, while the concept of core-periphery structures is rarely mentioned. Moreover relatively little attention is paid to the analysis of firm strategies or to the systemic processes or structural factors that affect the behaviour of capitalist enterprises. This omission is in part the outcome of the fact that these approaches have seen themselves as alternatives rather than as complementary to the political economy tradition (Lipietz, 1977; Massey, 1995; Hudson, 2000) in which this volume is rooted.

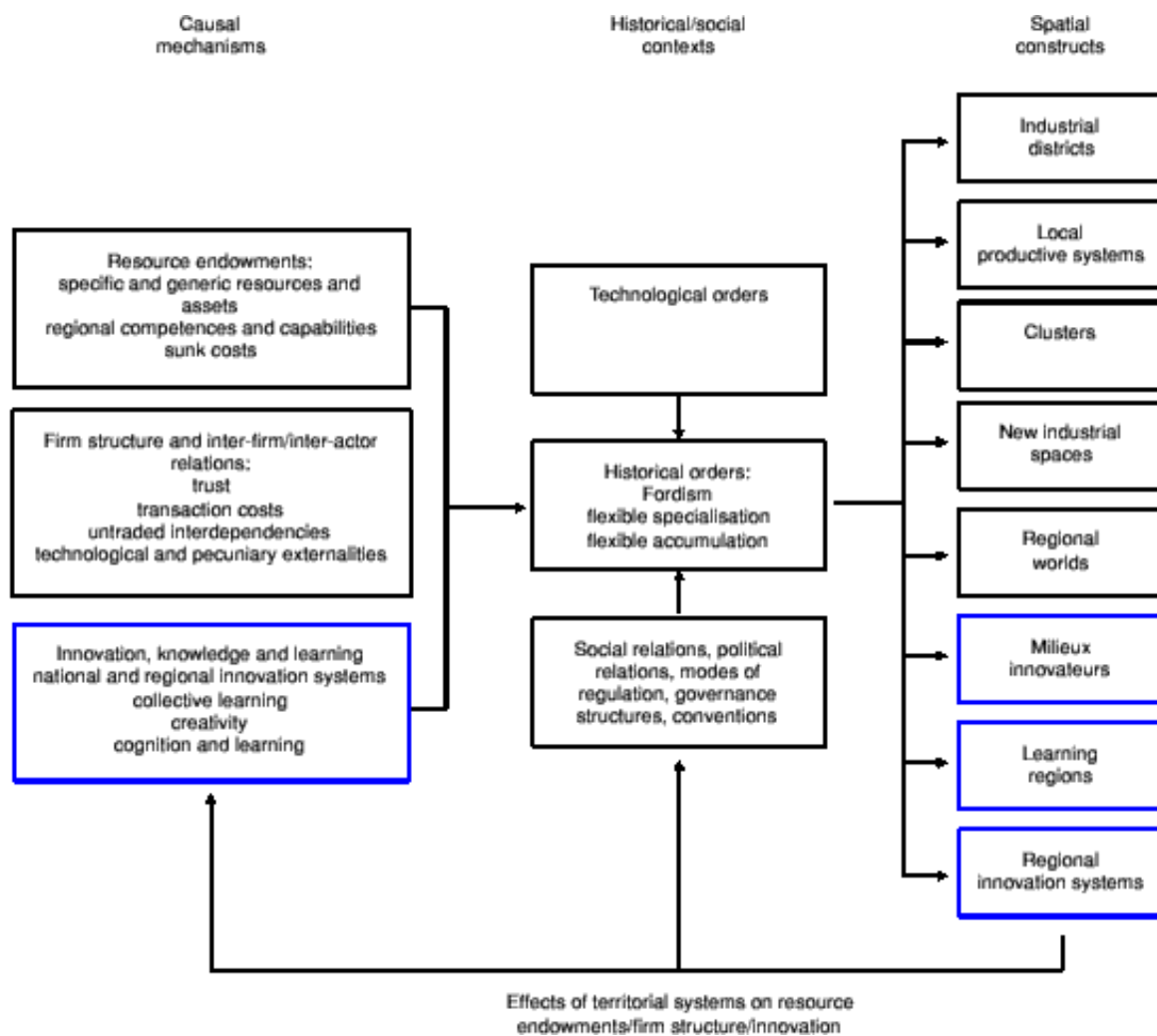


Figure 2.1 New economic geography of the geographers

Alongside this geographical literature, there are several other approaches. In management studies for example Porter (1990) has developed a more synthetic model of the determinants of national and regional competitive advantage in which emphasis is placed on the role of four interacting factors: firm strategy, structure and rivalry; factor conditions; demand conditions; and related and supporting industries. More recently there has been a renewed interest in comparative regional economic development and in economic geography amongst economists. In this case, there are two starting points. The first is the theory of economic growth and its application to the question as to whether areas that are economically less developed will catch up with areas that are economically more advanced. The second is the theory of the location of profit maximising firms often in a world of increasing returns and imperfect competition (Fujita, Krugman and Venables, 1999). The aim of this literature is to identify factors that explain spatial agglomeration, regional specialisation and core-periphery structures. The means is the construction of artificial models, drawing on analyses of the impacts of increasing returns, forward- and backward-linkages, external economies, endogenous growth, product differentiation, external diseconomies, etc. to generate imaginary economic landscapes. A further aim is to compare these imaginary worlds with the real world with a view to arguing that correspondence between them is indicative of the identification of the generative mechanisms. The methodological approach is similar therefore to that of earlier location theorists such as von Thünen, Weber, Lösch and Christaller and the subsequent quantitative research tradition that dominated urban and regional geography in the 1960s and early 1970s (Martin, 1999).

Figure 2.2 Conceptualizing development

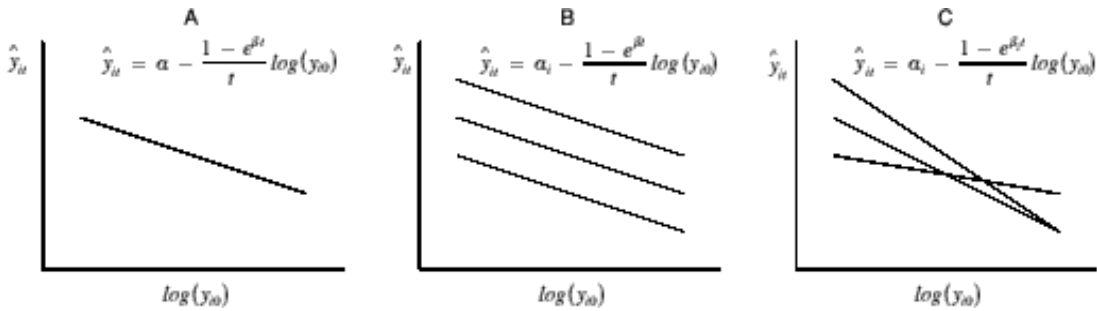
- 1 An area's development, wealth and human well-being which is the aim of development depend on its **resource endowments**: natural resources, infrastructures, population and skills, degree of development of the forces of production, etc.. An area's endowment of natural and created resources/assets is therefore **a cause of development**, specialisation and the division of labour.
- 2 An area's development also depends on the degree of mobilisation of its resources and human potential and on the effectiveness, efficiency and productivity with which they are used, which themselves depend on
 - 1 growth and development strategies of enterprises and other economic actors, and consequent development of technological and productive capabilities
 - 2 institutional structures, capacities and performance, systems of regulation, and social relations of production (including relations of trust, impacts of processes of learning and innovation), and
 - 3 the wider national and international context and the rules of the game: in a cold climate (zero-sum game) the most successful can prosper, but, even if everyone emulates the winners, not all can win; in a warm climate (positive sum game) the opportunities for all are greater
- 3 An area's development also depends upon the extent to which its inhabitants can command and control the resources of others, the degree of unequal exchange and the extent of transfers of wealth
- 4 As resources are created, conserved and reproduced in and through development, **resource endowments are also a consequence of development** : many of the resources on which development depends are endogenous rather than exogenous, are a result of growth and investment and are greatest in areas that are already most developed. Development processes are therefore cumulative.

The aim of this chapter is to outline the core features of the new economic geography of the economists (the role of general convergence and divergence tendencies in shaping the relative performance of regional economies and the contribution of the 'new economic geography' to the study of location and territorial division of labour) and to draw on these approaches and on the new economic geography of the geographers to present a new conceptual framework that offers a way of exploring the spatial impact of profit-seeking behaviour. This behaviour is rooted, first, in the strategic and routine actions of firms and, second, in the impact on their conduct of their external environment (comprising inter-firm and firm-market networks and wider institutional factors and growth models). This framework also recognises that it is this conduct that results in the creation/reproduction of assets and resources that lays the foundations for subsequent phases of development, as emphasised in dialectical cumulative causation approaches to economic development (see Figure 2.2). This approach aims therefore to retain the merits of a political economy approach, while drawing on the the contributions of other traditions.

Regional economic performance: convergence or divergence

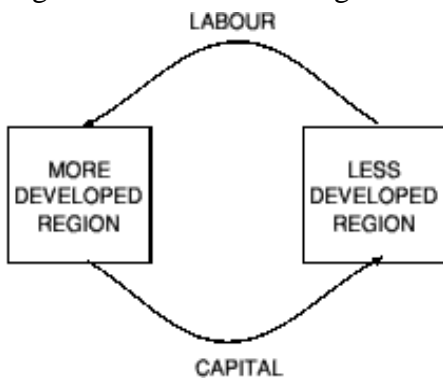
Analyses of regional performance and growth are concerned with regional differences in the new wealth and income produced in a particular period and especially with the way in which comparative levels of development change over time. More politically they are concerned with the question as to where regional economies are heading and what actions have shaped their past trajectory, determine their current evolution and will permit them to arrive at a preferred future state (Fagerberg, 2003). Theoretical models of relative regional economic performance produce conflicting answers. In recent years, in a period of hegemony of neo-liberal economic ideas and strategies, models that predict catch-up have predominated, especially in discussions of globalization, where convergence is expected to result from the alignment of technologies, lifestyles, consumption patterns and government policies in part as a consequence of the discipline exercised by global financial markets and dominant economic and political interests.

Figure 2.3 Convergence



The theoretical rationale for these expectations is provided by a range of neoclassical growth, regional development and trade models, which all rest on assumptions of constant returns to scale, perfect competition, with its implication that the economy is made up of small enterprises none of which can have any impact on market prices, and instantaneous re-employment of resources. The Solow (1956) growth model, and the growth accounting exercises to which this model gave rise, rested on the idea that regional economic performance depends on growth in the volume of capital and labour inputs of which an area's resource endowment is made up and the increase in productivity due to technical change. The Solow model predicts that the growth path of a country or region will converge on a steady state which, provided labour is mobile (or regional rates of population growth are identical) and technological knowhow is public, is the same for every country or region. According to these models the existence of similar conditions in the economies under consideration would consequently result in a convergence in per capita income, as economies that are less developed are expected to grow faster than economies that are more developed. Empirically this claim is associated with the β convergence hypothesis (Barro and Sala i Martin, 1992). According to this hypothesis the slope parameter, $(1 - e^{\beta t})/t$, of regressions of per capita GDP growth in t years, \hat{y}_t , on the logarithm of initial GDP per head, y_0 , will be negative (see Figure 2.3A). Two factors underpin the expectation of faster growth of less developed economies. The first is the existence of diminishing returns to capital and constant returns to scale. At any given level of technological development, these conditions imply that increases in per capita output get smaller as the amount of capital per worker increases, that increases in productivity cease once a steady-state/equilibrium amount of capital per worker is reached, that increases in per capita output associated with incremental investments are greatest in areas/enterprises that are the least mechanised and that countries that differ only in initial levels of per capita GDP will converge on the same level of GDP per capita. The second is the view that technology is a public good available at no cost to everyone and that the diffusion of technology and of knowledge from advanced to less developed enterprises and areas would close technology and productivity gaps.

Figure 2.4 Neoclassical regional convergence



Neoclassical models of regional economic development suggest that the flow of capital to low income areas and of labour to high income areas will result in an equalisation of income per head

(Borts and Stein, 1964). In this case the idea is that the movement of labour from low wage areas to high wage areas will raise wages in the former and reduce them in the latter. Capital conversely will move in the opposite direction as the rate of profit is expected to be higher in less developed areas (see Figure 2.4). Movement will continue, it is argued, until there are no further differences in rates of return in different areas. As with other models the assumption of constant returns to scale is critical as in its absence the returns to capital may well not be greater in less developed areas.

Neoclassical factor proportions explanations of specialisation and trade predict, finally, an equalisation of factor prices independently of factor mobility (see Armstrong and Taylor, 2000: 122-31). According to these models areas specialise in activities that make intensive use of resources that are relatively abundant. Increases in the demand for relatively abundant resources and reduced demand for relatively scarce resources will raise the incomes of the former and reduce the incomes of the latter.

One of the difficulties with these models that all provide strong support for market ideologies is that empirical research lent little support to their expectations of an equalisation of development (see for example the Italian evidence presented in Chapter 4). Empirical research into the convergence hypothesis showed for example that there were differences in regional steady state growth rates and permanent differences in income per head. As a result alternative theories of conditional and club convergence that predict cross-sectional heterogeneity (see Figure 2.3B and C) were introduced. In the case of club convergence differences in performance were considered to stem from the fact that economies fall into different groups/clubs because of differing initial conditions, while conditional convergence models attribute differences to the cross-area heterogeneity of control variables such as rates of accumulation or the quality of modes of governance. Giannetti (2002) for example shows that technology diffuses but the capacity of economies to benefit from technology spillovers depends on their initial specialisation, skills and knowhow.

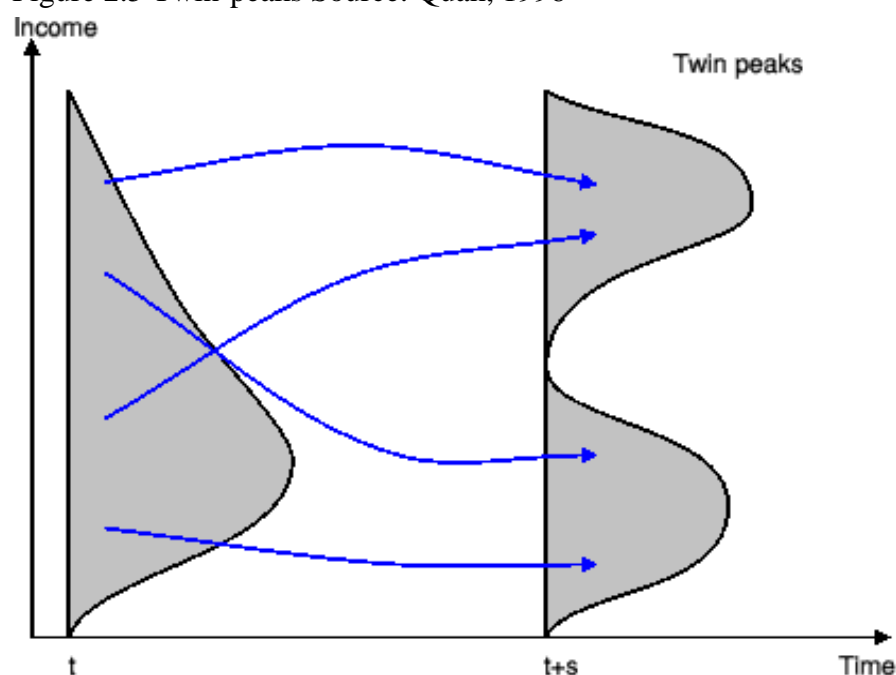
The next step was the development of new models of endogenous growth that led to radically different conclusions consistent with earlier models of cumulative causation (Myrdal, 1956). Associated principally with Røhmer (1990) these models made technical progress endogenous and suggested that improvements in knowledge would lead to a continuation of investment and growth in the areas that are most advanced, helping to explain why economically less developed areas fail to catch up (for a clear account see Fagerberg, 2004). These models rest on the idea that learning and the development of successive generations of equipment and goods and services are associated with cumulative improvements in human knowledge and technology, and cumulative increases in human skill and knowhow. At first these improvements were considered to amount to spillovers that led to increasing returns to scale and the level of the economy but constant returns at the level of the firm, so that firms operated as if they inhabited a world of perfect competition. At a later stage allowance was also made for economies of scale at the level of the firm and for imperfect competition in recognition of the fact that firms that carry out organised research and development can recoup the costs incurred by securing a temporary monopoly and restricting temporarily the diffusion of the innovations that result.

According to these models growth can stem from societal spillovers associated with the general advance of knowledge and from the results of partially appropriable research and development. An important feature of this approach is the reconceptualisation of the nature of knowledge. First it is recognised that knowledge is a non-rival good that can be used simultaneously by different people, and over and over again by the same people at close to zero marginal cost. Second it is recognised that it is a partially excludable good. Third investments that increase human knowledge yield increasing returns for two reasons. First, in so far as its diffusion can be limited the fixed costs of developing new products and technologies can be spread over a large volume of sales, yielding strong decreases in average costs as output increases. Second, investments that increase knowledge nonetheless generate strong externalities as knowledge cannot be perfectly patented or

kept secret (and is therefore only a partially excludable good): once it is known that something can be done, others can seek to duplicate it, so that new knowledge has a positive effect on the production possibilities of other enterprises.

Applied to the study of comparative development, this movement away from constant returns to scale and perfect competition to a world of increasing returns and imperfect competition can imply cumulative causation and divergence rather than convergence, as new investments in places and enterprises that are already advanced create new development gaps (see Dunford, 2002, for a fuller account). A particularly striking application of these ideas is found in the work of Quah (1996; see also the discussion in Perrons, 2003). Quah predicts the emergence of twin peaks in the distribution of regional income/household income in what he calls weightless (superstar) economies in which value is embodied in immaterial things (see Figure 2.5 which portrays the transition from an economy in which there are a lot of people with middle incomes and few rich and few poor people to a twin peak model). One cause of the twin peak model lies in the supply side effects identified earlier. For Quah in weightless economies ideas are themselves commodities. The immaterial goods that result are distinct in that they do not have to be transferred from one person to another but are simply replicated or copied at a marginal cost that is close to zero (and where, if equipment is required to use these goods, the upfront costs are small). Alongside this supply side factor there are two demand-side factors. First, the market for many immaterial goods is extremely large and often global in character (lifting the constraints on the division of labour posed by the extent of the market). Second, consumers often prefer the famous to those who are less famous but whose talents, skills and abilities may differ only marginally from the most famous. The combination of a very high level of demand for the goods and services offered by superstars and their very low costs of reproduction creates very high incomes in a world of winners and losers and wide inequalities. These mechanisms clearly have an impact on territorial development as immaterial goods and services are produced somewhere just as the people whose incomes are derived from them must live and work somewhere.

Figure 2.5 Twin-peaks Source: Quah, 1996



As is clear, these competing models lead to the identification of two sets of mechanisms. On the one hand, there is a set of centrifugal forces of which one of the most important is the transfer of technological and organisational knowledge to less developed areas or less advanced enterprises. On the other, there are a set of centripetal forces as enterprises and areas that are developed create new sources of competitive advantage thorough, in particular, further investments in knowledge and skills. At any point in time the relative performance of different regional economies depends on the relative weight of these two sets of forces.

These developments in economics were reflected in the increasing concern in the geographical literature with the role not of resource endowments but of knowledge and innovation (see Figure 2.1), although the source of inspiration was more often the approach of evolutionary economists such as Schumpeter and Freeman. Geographers increasingly argued that regional growth depended on innovation and learning, on the existence of policies that support investment and raise research and development especially in technologically progressive sectors, and on the determinants of the diffusion of knowledge. A great deal of emphasis was placed on degree to which the speed and extent of diffusion (whether through emulation, social interaction or technology transfer) is hampered by distance, encouraged by proximity, constrained by national frontiers perhaps to the disadvantage of small countries and shaped by the impact of institutional and cultural factors on absorptive capacities. A limitation of this research was however an excessive concern with the role of technologically progressive sectors and small start-ups on the one hand and too little concern with the outcomes of the research and development activities of large groups and the role of large enterprises in developing industrially innovative products and processes.

Territorial divisions of labour

The changing map of development is a reflection of the changing geography of the production of goods and services and the changing distribution of earnings and income. Explaining the changing map of relative development therefore implies explaining what economic geographers often call the territorial division of labour which identifies who does what, where and when, what rewards they receive and in what relationships they stand to other people and economic activities in other places.

In the geographical literature analyses of the territorial division of labour have tended to concentrate either on conceptually informed classifications (see Table 2.1 and Hymer, 1975; Lipietz, 1977; Massey, 1979) or on more abstract locational models. The merit of the former approach lies in the elaboration of historically-specific generalisations, whereas the advantage of the second is that it identifies the factors that explain the character of economic landscapes.

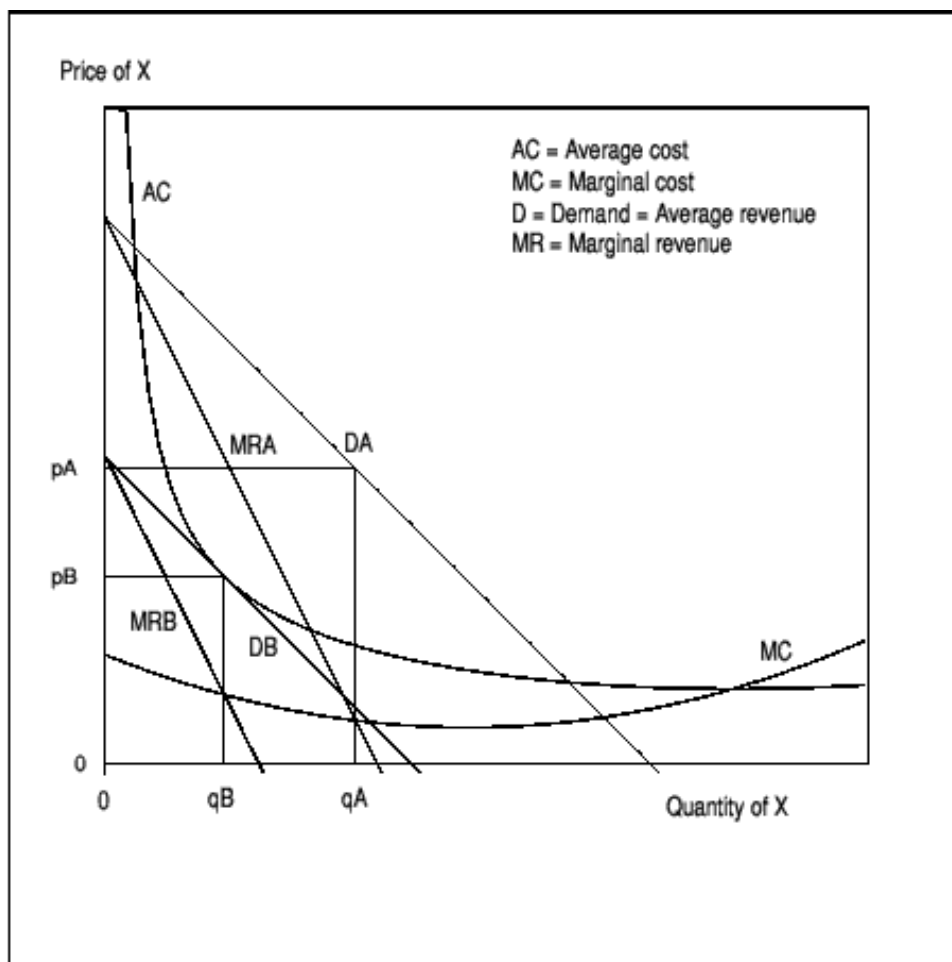
Table 2.1 The hierarchical division of labour within the multinational corporation and uneven territorial development Source: based on Hymer (1975)

Level	Function	Locational requirements	Locations
1	Strategy	Close to capital markets, media and government	World's major cities: New York, London, Paris, Bonn, Tokyo, Moscow, Beijing
11	Coordination	Close to sources of white collar labour, communications and information	Large cities, regional capitals.
111	Day to day operations	Responsive to the pull of labour, markets and materials	Widely dispersed

This second approach has enjoyed a recent renaissance with the development of the new economic geography of the economists. The aims of this literature are severalfold. First it seeks to explain the geographical concentration of the activities of individual enterprises or the agglomeration of different economic activities and their consequences for the distribution of the shares of aggregate economic activity across different localities. Second it aims to explain geographical specialisation which refers to the fact that within certain localities some activities are relatively strongly represented. Third it examines the impact of integration on the territorial distribution of economic activities.

At the root of the new economic geography was the development of tractable models of competition in a world of increasing returns and in particular the development by Dixit and Stiglitz (1977) of a formal model of the theory of monopolistic competition, developed originally in the 1930s by Robinson and Chamberlain. In a world of monopolistic competition firms can set their own prices. Firms are faced in other words with downward-sloping demand curves, such as the curve DA in Figure 2.6, and can increase sales by reducing prices. Marginal revenue is therefore less than price. To maximize profits firms select a price (p_A) and output rate (q_A) for which $MC=MR$. At this profit maximizing position price exceeds MC , giving firms an incentive to try to sell more by shifting the demand curve to the right, perhaps through advertising. In Figure 2.6 the firm is on downward sloping part of its average cost curve, so that it has excess capacity in the sense that output is not sufficient to minimise average cost. Total revenue, equal to, $p_A q_A$ exceeds total cost, so that the firm earns excess profits. Such firms have an incentive to prevent the entry of rivals. The existence of high profits will however encourage other firms to enter the market perhaps to make alternative varieties of the product. If other firms do enter, they will reduce the market share of existing firms: as new firms enter, the demand curve for the initial firm in Figure 2.6 moves leftwards, and, it is assumed, will continue to move leftwards until it reaches DB where it is tangential with the firm's long run average cost curve, at q_B and p_B . At this point $MC=MR$ and there are no excess profits.

Figure 2.6 Monopolistic competition



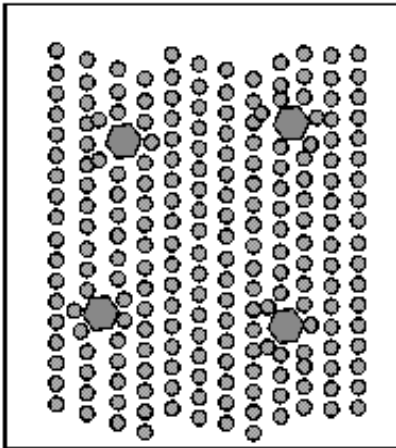
In new economic geography models, the spatial organisation of production depends once again on the interplay of centripetal and centrifugal forces. Centripetal tendencies depend first on the interaction between scale economies, transport costs and the size and relative location of output and input markets (see Figure 2.7), in which the dots denote the distribution of the population, there are three goods and services denoted by the shaded triangles, squares and hexagons, where the latter is a consumer good, and the scale of production is represented by the size of the shape). Essentially footloose consumer good manufacturers wish to concentrate production in a few locations because of scale economies at the plant level even if the distribution of population is relatively even, yet seek also to locate these plants near their customers because of transport costs (see Figure 2.7A). As specialisation and the complexity of the division of labour increase, access to customers and suppliers is greatest where other firms locate because of market-size/home market effects, though the strength of this centripetal force will vary with the significance and density (measured perhaps by the share of intermediate goods in production) of forward and backward linkages with other firms and industries (see Figure 2.7B).

A second set of factors that encourages agglomeration is the development of a wide range of non-pecuniary (technological) external economies (non-market size effects) found in existing agglomerations (see Figure 2.7B). These technological externalities, emphasised in the literature on industrial districts rather than economic geography models, include: the existence of scientific, technological and knowledge spillovers, often as a result of personal interaction; spillovers from local public goods; the development of dense and sophisticated labour markets; and the fact that the presence of one producer has the effect of directly reducing the costs of other producers, for example, because of the ability of producers to share infrastructures and specialized providers of inputs.

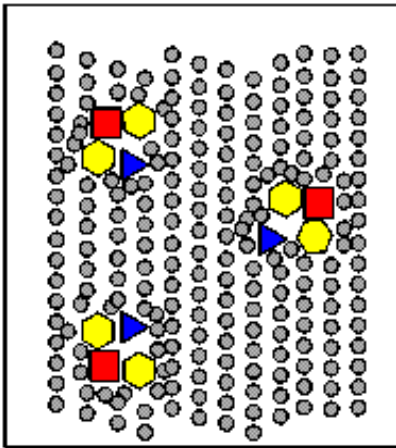
A third set of factors that intervene to shape the process of agglomeration/concentration is the mobility of labour and differential population growth which have impacts on the changing distribution of the population and on geographies of expenditure (see Figure 2.7C). As agglomerations emerge, for example, and as the geography of job opportunities and the range of goods and services/quality of life change in their favour, people move to them. This mobility alters the distribution of expenditure and market demand, adding further to the size of the market in areas of net population growth (the expenditure shifting aspects of migration). At the same time it increases the supply of labour, checking the growth of wages (the production shifting aspects migration).

Figure 2.7 Explaining economic landscapes

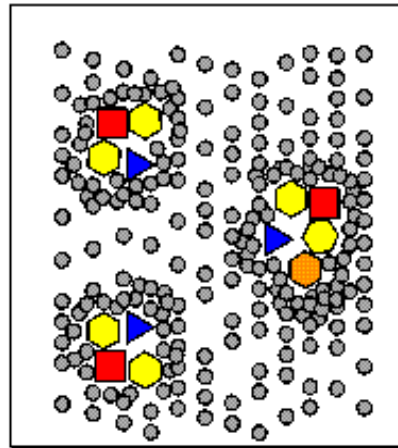
A Dispersed rural population yet scale economies lead to relatively few production sites for industrial good: how few depends on trade-off between scale economies and transport (iceberg effect) costs



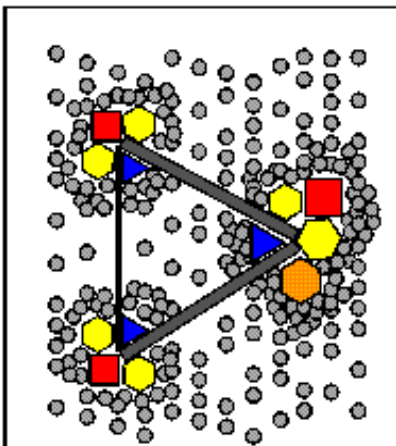
B Specialisation, division of labour and co-location near suppliers and customers
External economies also encourage proximity



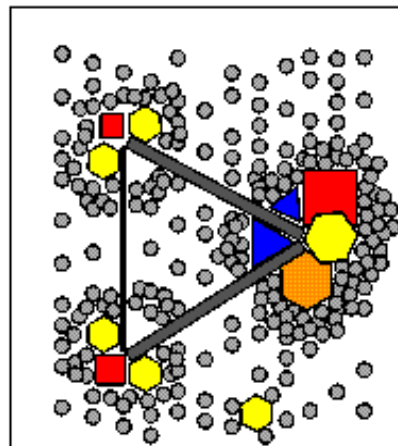
C Mobility reinforces agglomeration as does market access; suppliers of differentiated products in dense markets



D Differential transport costs lead to relative growth of increasing returns activities and population in transport hubs



E Endogenous growth/accumulation and competition differentially increase/decrease size of economic activities
Dispersion due to diseconomies/reduced transport costs



Concentration is not just a result of scale economies. If plant size is held constant, agglomeration can occur through changes in the number of plants. An increase in the number of plants will occur if there are a number of varieties of a particular good or service and if, in this situation, two conditions prevail. The first is that all varieties of differentiated goods and services are demanded. The second is that there are substitution effects as consumers choose between domestically-produced varieties and more expensive imported varieties, encouraging local production. In large markets the share of imported varieties is smaller, and so there is greater substitution in favour of domestically produced varieties (see Figure 2.7C).

A further mechanism derives from a set of self-reinforcing market access advantages stemming from the differential development of transport networks. In Figure 2.7D the width of the lines is inversely proportional to transport costs. Costs are low on wide routes making the eastern city a transport hub as it is cheaper to get from it to the other two cities than it is to travel between them. One reason why might be the coexistence of small differences in traffic and either increasing returns in the transport sector or differences in the quality of inter-city transport infrastructures. Other things being equal, the hub will be more attractive to increasing returns activities than the other two cities, setting in motion a self-reinforcing process: a city in which economic activities are concentrated will occupy a central position in the transport network reinforcing its advantages as a production location and creating a core-periphery pattern (Krugman, 1998).

All of these factors (the interaction between scale economies, transport costs and the size and location of output and input markets; non-pecuniary external economies; the mobility of labour; the manufacture of different varieties of goods and services; and the impact of transport networks) are connected with the ways in which concentration stems from the location of factors of production and the nature and differentiation of market demand. To them should be added the dynamic effects of their interaction and the ways in which accumulation and growth reinforce the cumulative process (see Figure 2.7E). Countries, regions and cities with large markets invest more, further enlarging those markets, while investment in research and development and in people augment the assets and resources that underpin spatial concentration. Spatial concentration is in other words also a consequence of mechanisms of endogenous growth discussed earlier (Krugman, 1998), while endogenous growth and in particular the innovations it generates can reinforce agglomerations (see, for example, Martin and Ottaviano, 2001).

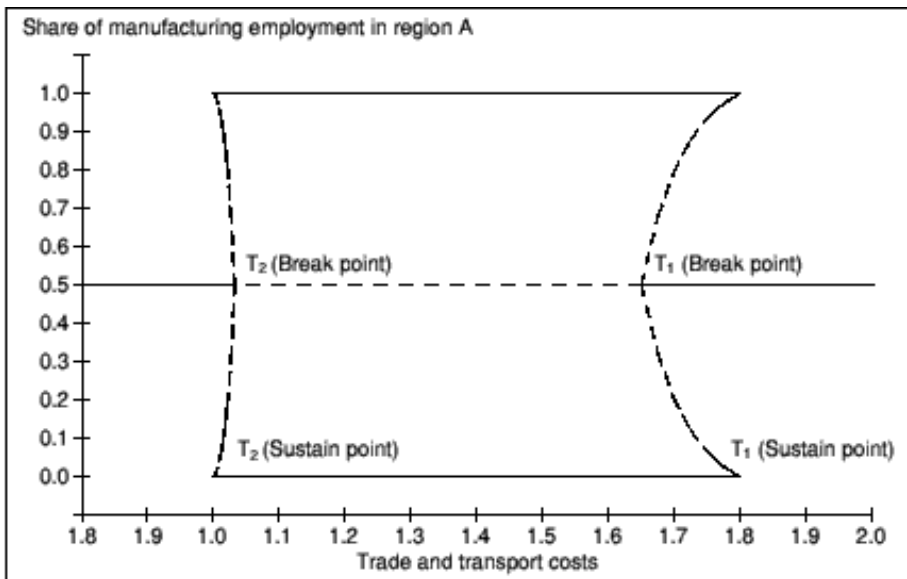
The strength of this circular and cumulative agglomeration process will depend on the relative importance of these centripetal forces and a set of countervailing centrifugal forces. The latter stem from three sets of factors. The first is the relative immobility of land-based agricultural activities, natural resources and the population attached to them which offer an offsetting incentive to locate establishments in these areas where there are few local competitors. The second is the ordinary operation of factor markets: wages and rents are higher in the neighbourhood of existing centres of economic activity; high costs can encourage activities to locate in areas where costs are lower. The third is external diseconomies (see Figure 2.7E).

There are several reasons why these models of cumulative regional economic development are important. The first is that they offer explanations (scale economies, market size effects, the density of forward and backward linkages, externalities, differential transport investment and mobility) of the geographical concentration of industries and of the agglomeration of economic activities and people. Agglomeration is an important feature of economic landscapes. Explaining why agglomerations occur, what their characteristics are, how many agglomerations there are and where agglomerations are located is therefore in itself an important task.

Agglomerations differ also however in their per capita incomes. A second contribution of these and related models lies in their contribution to explanations of these differences. The identification of inequality-generating mechanisms derives for example from the integration of these ideas with ideas about endogenous growth. If growth, for example, depends on the accumulation of knowledge and skill, if income depends on the embodiment of knowledge in economic activities, and if the effective use of knowledge depends on past development trajectories in a locality and its

neighbours, income differences can emerge, and, if richer areas find it easier to re-equip and to invest in new knowledge, differences could increase.

Figure 2.8 Core-periphery bifurcations



A third contribution lies in attempts to explain the impact of globalization and integration on industrial specialisation and location. This contribution is related to the second as it also deals with the evolution of inequality and the rise and fall of core-periphery structures. In these models globalization and economic integration are understood as involving the reduction of transport and trade costs (Krugman and Venables, 1996). Suppose initially that trade and transport costs are very high. In these conditions centripetal forces are stronger than centrifugal forces, and economic activity will tend to be dispersed, as producers locate near their markets. Consider the simple two region model represented by the so-called tomahawk diagram in Figure 2.8 (in which solid lines are stable and the broken lines unstable equilibria). At the right hand end of the horizontal axis denoting high trade and transport costs the share of industry in each of two regions is 0.5. As trade and transport costs decline, so does the relative magnitude of the centrifugal forces until a break point is reached at which agglomeration forces outweigh centrifugal forces, industrial activities concentrate in one of the two regions, and the initial symmetry is broken. If trade and transport costs continue to fall, the agglomeration will survive until a critical sustain point is reached at which centrifugal forces would once again outweigh centripetal forces and economic activities would disperse, in this case as distance is virtually irrelevant in cost terms. A striking feature of this model is the fact that once established agglomerations are usually able to survive even under conditions, represented by trade and transport costs that lie between the break and the sustain points, that would not cause them to form in the first place. A second feature is the existence of bifurcations with qualitative behaviour changing abruptly when the quantitative balance of forces passes some critical level. (In the real world of course there are high degrees of inertia, due to role of sunk investments, that generate enduring differential advantages).

The implication of this argument is that there is an inverted U-shaped relationship between integration and agglomeration. Initial reductions in high trade and transport costs cause agglomeration and reinforce core-periphery structures. Once trade and transport costs are fairly low, further reductions cause dispersion, initially of industries that are relatively labour-intensive and have relatively weak inter-industry linkages. To put the point another way, reducing the costs of transactions between core and peripheral regions gives peripheral producers better access to markets in the core, but also gives core producers better access to peripheral markets, and the net effect for peripheral producers will be negative at intermediate trade and transport costs but positive if these costs become insignificant. (The idea that deconcentration will finally prevail is

questionable as it rests on the idea that what matters is absolute rather than relative trade and transport costs and that there is limited inertia).

A fourth feature these new models of location and development is the recognition that the geography of economic space is a result of a dialectical, historical process in which causes are consequences and consequences are causes and in which humanly-created resource endowments are an endogenous consequence of an area's development path. As Krugman (1999) recognises:

‘explanations of economic location are almost always historical, while history tends to have a ‘one damn thing after another’ character. If you try to explain why a particular region is home to a particular industry, you usually end up explaining it largely by describing the sequence of events that caused the industry to be there’,

as what happens at each stage is in part a result of what happened earlier. Moreover, as Krugman concludes in relation to the New England case, ‘the one overwhelming lesson of New England’s economic history is that, while each successive stage reflects forces that are obvious in retrospect, attempts at prediction nearly always get it completely wrong’.

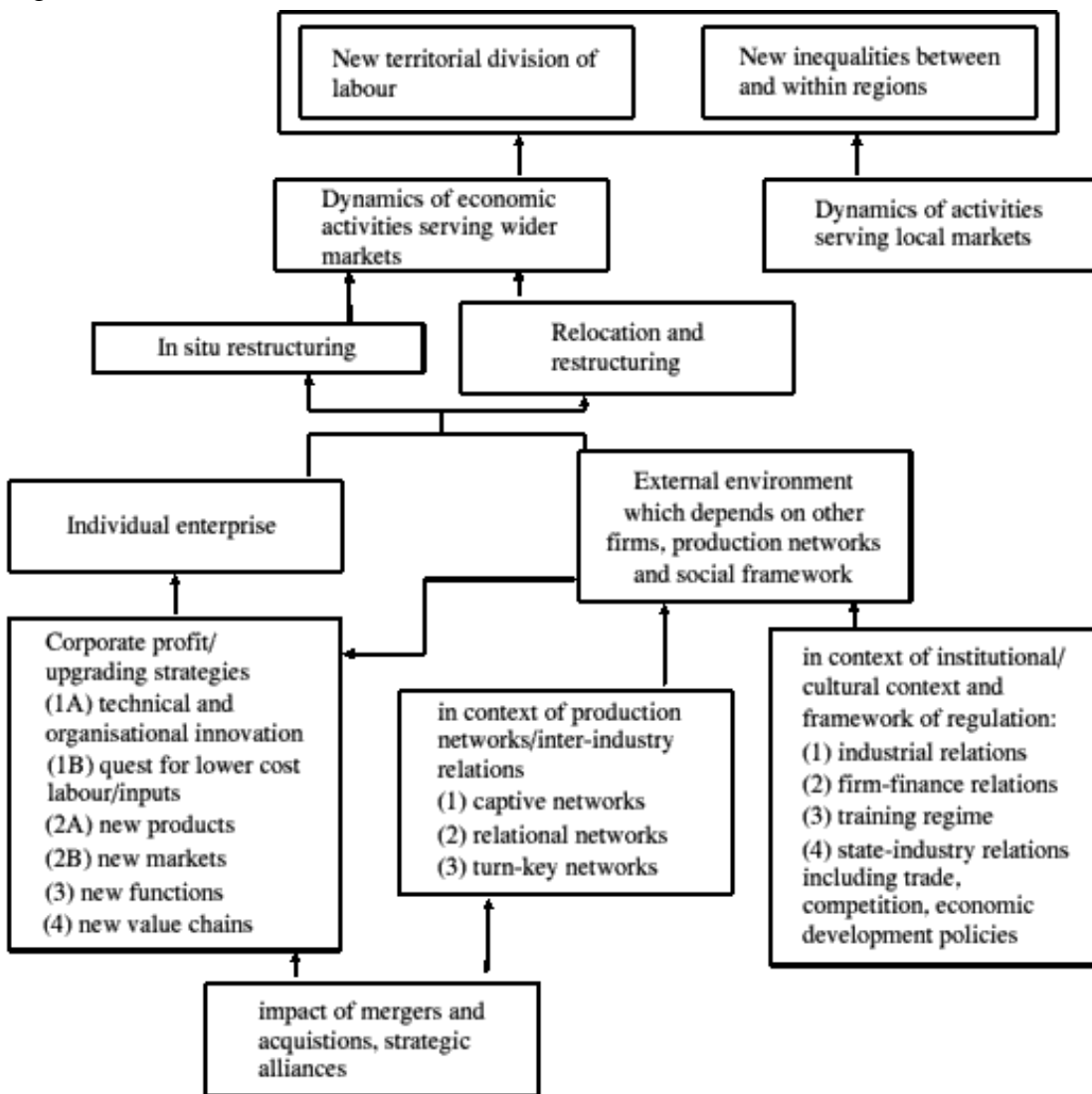
An important consequence is that these models offer an alternative to traditional approaches to the study of trade and specialisation. Traditional explanations were cast in terms of factor intensities, rooted in the Heckscher-Ohlin view that places specialise in those activities that use intensively resources that are relatively abundant in that place, and Ricardian views concerning the role of technologically-induced differences in productivity. At any moment in time there is some sense in the factor proportions idea that differences in resource endowments will for example cause peripheral areas to specialise in agricultural production, raw material exports and relatively unskilled manufacturing, while core areas concentrate on activities associated with higher value-added per head. Cumulative causation models rest however on the idea that resource endowments must themselves be explained and are in fact created historically. Most of the resources on which development depends are a result of previous human activity. Even in the case of natural resources the productivity with which they are exploited depends on historically created capabilities, although natural features may act as the seeds around which cumulative processes unfold.

The new economic geography has in short considerable merits. First it acknowledges the importance of path dependence and of Myrdal’s cumulative causation thesis. Second it identifies possible answers to why questions. Third it attempts to derive spatial organisation from analyses of profit-seeking. The arguments nonetheless remain abstract, and little progress has been made in identifying the relative importance of different causal mechanisms. What is more these models have several limitations. The first is that the models considered so far are all essentially concerned with the allocation of resources or with the long-run supply side determinants of growth and development. What these models assume is a smooth and automatic process of adjustment to economic shocks in which resources released as a result of structural change are quickly re-employed. The demand for labour depends, however, on the demand for the output workers produce and the real wage, while the demand for output depends on aggregate demand. A decline in aggregate demand can have a powerful negative impact on output and therefore on employment, contributing to recessions which impede the re-employment of resources in new spheres of economic life. The second is that their concept of corporate strategies and of the relevant external environment is a narrow one. As Neary, 2001: 549-50 remarked ‘except for the fact that it incorporates increasing returns, the new economic geography has industrial organisation underpinnings which are very rudimentary’, also noting the failure to model explicitly the transport and logistic system.

An alternative framework: value chains, industrial networks and governance

Many of the analytical ideas present in endogenous growth and new economic geography literatures can figure in a more comprehensive framework that seeks to identify the connections between comparative regional development, the underlying territorial division of labour and the mechanisms that shape them (see Figure 2.9). Figure 2.9 has two important characteristics. First it identifies a reverse causal chain in which successive downward steps identify factors that underlie or explain elements at each higher level, and whose traversal in the opposite upwards direction permits a movement from micro-level activities to meso- and macro-level phenomena. Second it synthesises literature dealing with (1) corporate strategies and value chains (see Smith et al., 2002), (2) customer-supplier relations, production networks and clusters, and (3) and the regulation and governance of economic change. These three elements are represented by the three main boxes in the lower part of Figure 2.9, which are themselves derived from the distinction between the internal resources and strategy of an individual enterprise (what takes place within the boundaries of the firm which themselves shift as a result of mergers, acquisitions and alliances) and the external environment of the firm (the external resources and constraints embodied in the relation of the firm with other firms and with non-corporate governance systems). Third it summarises the argument that will be developed and explained in the rest of this chapter.

Figure 2.9 Territorial divisions of labour



Basic and Non-Basic industries

To examine the relationships between regional performance and the territorial division of labour it is helpful to draw on a long-established distinction between basic and non-basic industries (see Figure 2.9). Basic industries are economic activities found in a locality that predominantly serve non-local markets and accordingly generate net exports, a net transfer of wages and, if the industry is locally controlled, profits to their home area. Non-basic industries are economic activities that predominantly serve local markets. Included amongst the latter are a large range of locally-provided or neighbourhood services financed either through government transfers or through the recycling of incomes in the local area. While there are no systematic recent studies that draw on this distinction, it does seem sensible to hypothesize that a large share of recent employment growth is of the non-basic kind, with a large share of jobs for women and in low paid personal services (Perrons, 2003), that this predominance of non-basic jobs is one of the reasons why there is such a strong correlation between the geography of recent employment growth and the distribution of the population, and that the character of places depends critically on this sector (Perrons, 2001).

Clearly the regional location of non-basic employment is closely related to the location of the markets or users that these economic activities serve. In the case of basic activities on the other hand, on which this volume henceforth concentrates, location depends on the interaction of factors identified in the new and old economic geographies: scale economies and endogenous growth; market size and location; mobility; the strength, intensity and geography of vertical linkages; external economies; and the interaction of factor intensities and resource endowments.

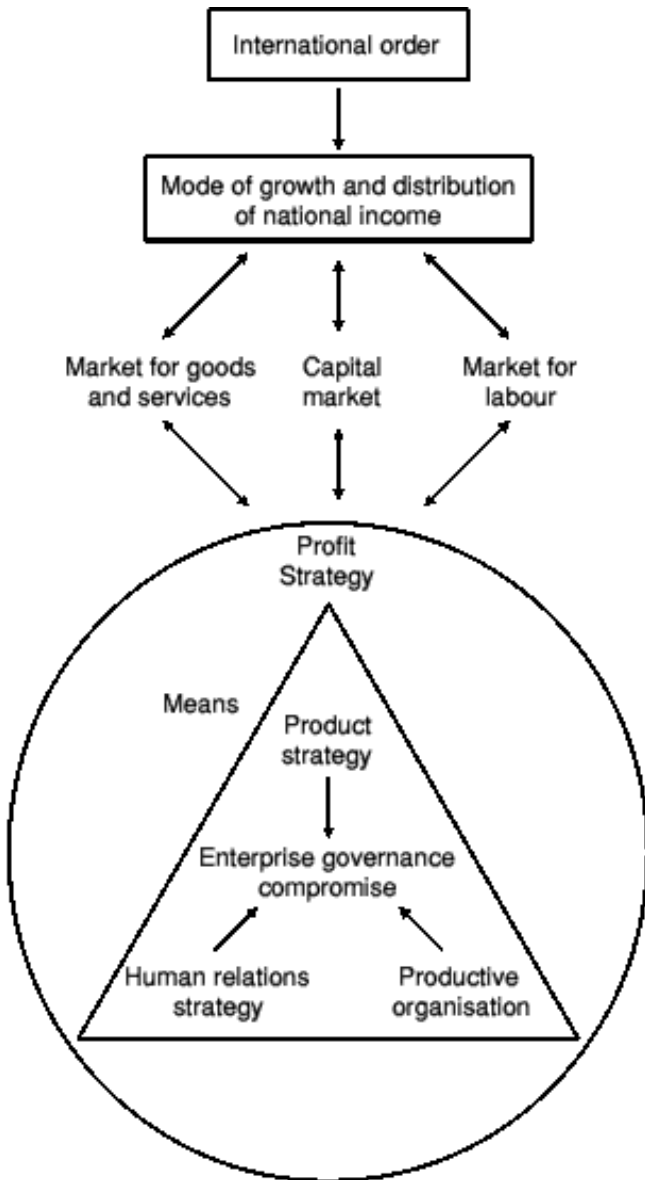
Explaining the dynamics of activities serving wider markets

The trajectories of regional economies depend not just on the location of economic activities but also on their in situ evolution and the consequent changes in output, employment and income. To explain these trajectories it is therefore essential to examine the strategies of firms and the conditions that explain them.

The starting point of such an analysis is the profit strategies of firms and the productive strategies they put in place to implement their profit goals (see Figure 2.10). Enterprises develop strategies to deal, first, with the imperative that capital invested earn at least the average rate of profit and, second, with two uncertainties. The first is the uncertainty as to whether the goods and services produced will be sold (see Boyer and Freyssenet, 2000: 6-25) and in particular whether the costs an enterprise incurs will be recovered.¹ There are several ways of dealing with this situation. The first is to identify goods and services for which there is effective demand and to acquire a competitive advantage in satisfying the desires of consumers through the price, quality, diversity, novelty and availability of their products. This type of competitive advantage can derive from the products themselves, the means of production used, the organisation of work or the wages paid to the workforce, though it can also derive from collective conditions of production (infrastructural conditions, taxation regimes, the quality of training systems, innovation support, etc.) established in a particular area perhaps through public action, or through strategies that transfer the risk to others (which we shall consider later). The second is through the establishment of a mode of growth that makes the evolution of demand more predictable and to limit inter-firm or inter-worker competition. As this second path, involving the creation of a more organised model of capitalism, indicates, the evolution of enterprises depends not just on internal relationships within an enterprise but also on its external relationships with its wider environment (see Figure 2.10). These environmental aspects of change will be considered in the next two sections.

¹ A second set of imperatives confronts wage earners: the requirement that they acquire the skills and qualities required to make them employable, and that they accept occupational and geographical mobility.

Figure 2.10 The productive model and its context Source: elaborated from Boyer and Freyssenet, 2001: 24



The second uncertainty is the uncertainty as to whether the workforce will produce goods and services of the right quality, in the right quantity and at the right time. Also in this case there are two broad paths. The first is to establish relations of trust with wage earners exchanging autonomy and career progress for improvements in the performance of the enterprise. The second is to design machine systems and methods of work organisation to channel and discipline the activity of the workforce in ways considered compatible with the profit strategy of the enterprise. Historically, it is this second path that has prevailed.

This profit strategy, involving as it does a quest for satisfactory returns and a quest to keep abreast of the competition, may also be construed as attempts to upgrade. Construing it in this way enables a connection to be established with the value chain literature, which itself is a development of the literature on commodity chains and input-output structures. Similarly categories applied in the new economic geography literature can be recast in this framework which has the advantage of examining 'what' questions concerning the profit strategies of firms as well as 'where' and 'when' questions. Close relationships also exist with other traditions including Schumpeter's concept of innovation which in its second wider formulation included: (1) the introduction of a new good or a new quality of a known good; (2) the introduction of a method of

production or a mode of commercial management new to the sector; (3) the opening up of a new market whether or not it previously existed; (4) the conquest of a new source of raw materials or semi-manufactured goods; (5) the establishment of a new organizational model in any industry, including the creation or dismantling of a monopoly position (see Galvão, 1998).

Attempts to upgrade involve attempts to exploit specific sources of profit or of surplus profit/economic rent and can be classified into four types (identified as 1A and B, 2A and B, 3 and 4 in Figure 2.9).

The first is improvements in productive organisation, new technologies and new methods for handling material and information flows that reduce costs relative to prices and increase market share. One way of achieving such an advantage is through the realisation, where they exist, of ECONOMIES OF SCALE involving the spreading of fixed costs over a larger volume of output to reduce unit costs. (In this way a link is established with the new economic geography models discussed earlier). Another is productive FLEXIBILITY which permits a rapid adjustment of costs to changes in demand. Yet another is through programmes of continuous improvement and PERMANENT COST REDUCTION. Cost reduction can occur in a number of ways including the transfer of certain operations to areas where wage costs are lower, or the searching out of new cheaper sources of energy, materials and components. (Again these strategies are related to the factor cost arguments embodied in the Heckscher-Ohlin models of trade and location). Other ways include the reorganisation of operational structures, or the transfer of costs onto society as a whole through for example recourse to state-financed early retirement schemes.

The second is the introduction of NEW COMMERCIALY RELEVANT PRODUCTS, increases in the VARIETY of products to capture new segments of market demand, improvements in the QUALITY or design of existing products, and entering new markets which permit short- or long-term increases in the prices the products command and/or sales expansion, increases in market share and increases in the utilisation of existing capacity. Markets are opened up in a range of different ways which include politically-mediated measures processes of liberalisation and privatisation. (New economic geography models highlight the impact of the size, diversity and location of these markets for the location of the activities that provide them, while new products result from research and development and marketing initiatives which are implicit in the endogenous growth literature).

The third is changes in the relative weight of different functional roles within the sector or value added chain to increase the share of functions commanding higher returns (Humphrey and Schmitz, 2002). Examples include concentrating on knowledge intensive activities or on marketing and distribution in the same value chain, or concentrating on what are conceived as core competences and working with specialist suppliers of functions considered non-core.

To these adaptations can be added a fourth involving disinvestment in one sphere of activity and a transfer of resources to new lines of activity and from one chain to another. In this case through acquisitions and sales or openings and closures companies can modify their portfolio of plants, specialising in a new profile of activities and altering the geography of their operations. At a territorial level any consequent changes in the profile of activities should result in increased output per head for the economic system as a whole. A classic example of changing chains is NOKIA, which from 1865 until 1960 was a manufacturer of paper, rubber and cables.

An increase in all these cases implies a movement of resources into activities that are associated with higher value added per unit of capital invested (equal to value added per person employed divided by the capital invested per person employed). And in each case the change may occur in situ or may also involve locational shifts as operations are opened, closed, expanded or contracted. Market-seeking investments of the type made by western companies in Eastern and Central Europe (ECE) were driven for example by a desire to expand sales by acquiring distribution and production capabilities in ECE but were also driven by a desire to increase the utilization of existing capacity.

These profit and upgrading strategies can be connected to the literature on convergence and the new economic geography. For example, strategies of technology transfer that raise relative productivity in less developed areas contribute to catch-up, though profits repatriation will affect the territorial distribution of income from inward investment. Conversely the relative upgrading of core economies has centripetal effects, as can measures that put in place transport improvements or widen market access and permit the realisation of scale economies from fewer production locations.

In devising a profit strategy no firm ignores any of these sources of profit or paths to upgrading. At any point in time, however, not all, and not all combinations, are equally feasible. Choices depend on market and wider social conditions, and vary over the course of time. In the motor vehicle sector, for example, at least six different historical combinations can be identified: a quality strategy; diversity and flexibility; volume and diversity; permanent cost reduction; and innovation and flexibility (Boyer and Freyssenet, 2000: 18).

Corporate profit strategies and their implications for in situ and locational change at the level of the enterprise result in outcomes that affect regional performance. At a regional scale, for example, upgrading can be defined as an increase in the wealth and employment created in a particular area, or perhaps in the wealth appropriated by the inhabitants of a certain area relative to others. Nonetheless there remains an important distinction between the two approaches as the upgrading of an individual establishment may have important direct and indirect effects on parts of the regional economy other than the enterprise itself. Examples include displacement effects. increased/decreased orders for local suppliers and competition for workers.

The implementation of a profit or upgrading strategy implies the existence of appropriate and coherent means (a productive model). To take the motor vehicle sector as an example, a volume and diversity strategy requires multi-purpose machines and multi-skilled workers, while a volume strategy requires standardised processes of production and unskilled workers. In practice the means at an enterprise's disposition are frequently a result of the specific demands of successive choices and may not prove mutually coherent.

Boyer and Freyssenet (2000) suggest that a productive model involves three elements. The first is a product strategy concerning the identification of markets and market segments, target sales volumes, the range and design of products, the quality of products and planned margins. The second is the productive strategy which deals with the means and methods chosen to achieve the product strategy. The productive strategy includes decisions about the organisation of product design, manufacturing and marketing, the choices of production techniques, the spatial organisation of activities, sourcing strategies and management criteria. The third is the human relations strategy covering systems of recruitment, job classifications, wage determination, and modes of representation of worker interests.

Assembling the material and intellectual means also entails the establishment of a compromise (a governance strategy) with all of the major actors. Of these actors some are internal (owners, managers, workers and unions plus new staff recruited from outside to support changes of direction) while others are external (suppliers, joint venture partners, companies acquired, shareholders, etc.).

In this section attention has been paid to the (1) the profit and upgrading strategies of individual enterprises, and (2) the appropriateness and coherence of the resources the enterprise can mobilise and the governance compromise it seeks to put in place in order to implement its chosen profit strategy and the ways in which they impact upon the the impact on the territorial division of labour. Territorial development and regional economic performance are affected when these strategies succeed and equally when enterprises founder as when the profit strategy is misjudged, or the means are not appropriate and coherent, or a suitable governance strategy proves elusive. Attention was concentrated however on the internal determinants of the growth of firm. Growth was seen to depend on the capacity of a firm to earn profits and compete for market share. This capacity was itself seen to depend on its internal resources (its inventiveness, material resources,

economies of scale and scope, accumulated knowledge, skill, competences and experience) and on its organizational capacity and collective effort which shape its ability to see and take advantage of its product development and marketing, production and human resource possibilities.

Firms and production networks

Companies are never self-sufficient. Accumulation and growth depend also on interactions with other economic actors (suppliers or customers, market organisations, universities, political institutions, research institutes, financial institutions and market research and consultancy groups) and with their macroeconomic environment. Chandler's (1997) 'modern corporation' realized economies of scale and scope by controlling value chains through the vertical integration of suppliers into the multidivisional enterprise. The viability of a high degree of internalisation and vertical integration depended however on the size and stability of markets, and therefore on general conditions relating to the model of growth or regime of accumulation. Made up of relationships with other actors seeking to mobilise their constantly evolving resource endowments to pursue their own development strategies, this external environment can be divided into two parts: the set of inter-firm and customer-supplier relations on the one hand, to be considered in this section, and relations with the wider social environment and growth model on the other, to be considered in the next.

A firm's interactions with other enterprises influence and augment its resources, capabilities, structure and strategy. Of these external relations and interactions, the forward and backward linkages and the externalities examined in new economic geography models are a subset. In the contemporary industrial order the acquisition and internal absorption of external resources and knowledge, cost-reducing external economies and the risk reduction derived from sharing and networking are perhaps especially important due to the tendency for enterprises to concentrate on core competences and give greater weight to external economies derived from inter-firm divisions of labour and network relations with other actors.

Analyses of inter-firm relations are often couched in terms of market relations. Aglietta and Brender (1984: 31-53) have argued that standard economic representations of market exchange are questionable for several reasons. First, markets are characterised by relatively stable relations of exchange, communication and distribution amongst active economic agents and in particular amongst functionally distinct financiers, producers, distributors and workers (with different sources of income: interest, profits, dealers' margins and wages). Second, markets are generally characterised by a relative stability of prices. Third, market exchanges of money for goods and services and goods and services for money are relations of complementarity as when a retailer is able to offer a producer an outlet for his/her products. Fourth, market exchange is also a relation of conflict over the distribution of value added. Indeed, the prices at which market transactions take place are not so much a vehicle for the communication of information as an expression of power relations (and of related information asymmetries) and a determinant of the distribution of value added between a buyer and a seller. The importance of this approach is that it replaces the idea that prices are simply a means of communicating information about relative scarcities and a device for ensuring an efficient allocation of resources with an emphasis, which is also present in the literature on industrial organisation and market structures, on relative economic power in buyer-seller relationships and the social determination of the worth of different activities (in a market system what someone is worth is what they are paid) and of command over social wealth (what someone is paid determines their command over the results of the work of others).

Inter-firm relations are also shaped (due to its impact on profit strategies) by the management of risk. Dunin-Wasowicz (2002) has emphasised how in response to increased uncertainty enterprises are rationalizing capacities and hedging for variability of demand through the use of shared suppliers in networks. Networks comprised of links between specialised suppliers (providing non-standardised intermediate goods) and several manufacturers allow a pooling of demand uncertainty (associated with idiosyncratic shocks) and generate economies of sharing

costly productive capacity. In this situation the strength of network externalities (depending on innovation, link structures and link costs) will influence cost positions and the relative competitiveness of different locations, their capacity to capture the wealth they create and their adaptability.

Inter-firm production and buyer-supplier networks exist at a range of scales, from industrial districts, to national economies, to continental trade blocs and the global system, involve a range of different relationships, and assume a range of forms. Humphrey and Schmitz (2002) argue that one can distinguish market (arm's length), network and quasi-hierarchical relationships. Berger, Kurz, Sturgeon, Voskamp and Wittke (2001) identify three models. The first model is of relational production networks. Associated with 'industrial districts' and the flexible specialisation model, these networks are characterised by dense networks of specialised small and medium sized enterprises, close social and spatial proximity and long-term inter-firm contractual relationships. In these industrial districts inter-firm relations are governed by modes of social interaction involving family relations, trust, reciprocity, reputation and peer pressure. These social relationships reduce the threat of opportunistic behaviour and offer an alternative to the internal hierarchy of the integrated firm and simple arms-length trade relations. The existence of a dense mosaic of small firms permits the manufacture of small volumes, short lead times, rapid delivery and fast adaptations to market conditions. In a world of small firms however there are limits to the realisation of scale economies, sales may be insufficient to warrant sizeable research and development initiatives and the security of supplies may be jeopardised by the high birth and death rates of firms (Dunford et al, 1993). Other research shows that the survival chances of firms located in clusters increases for firms operating in complementary industries but decreases for firms in the same industry (Staber, 2001).

The second model is of captive production networks (associated with lean production systems) where a dominant lead firm co-ordinates tiers of largely captive suppliers. These systems are characterised by near-vertical integration. In them the lead firms may have a financial stake in their suppliers, may play an active part in upgrading their suppliers' technologies and quality control systems, and may operate 'just-in-time' deliveries. The disadvantages are ones of dependence and rigidity due to the cost and difficulty of breaking buyer-supplier relationships on the one hand and the weakness of external information flows and linkages on the other.

The third model comprises turn-key production networks (Sturgeon, 2000) associated with the 'virtual corporation' model. This model arises when manufacturers acquire specialised inputs from specialised suppliers who sell to several manufacturers or design products that are made by contract manufacturers. Turn-key networks are an alternative to vertical integration where Original Equipment Manufacturers (OEMs) make their own specialised inputs, and are distinguished from captive networks by the merchant character of turn-key suppliers. The word merchant denotes the market (cost-sensitive, short-term, and fluid) character of customer-supplier relations made possible by the existence of a large and diverse pool of customers. Turn-key suppliers provide a wide range of services including component and module design, the purchase or manufacture of components, the manufacture and assembly of subassemblies or final products, packaging, distribution and after-sales service. Often they specialise in processes, components and services that have applications in a range of sectors, products and services (across different end-markets, end-products and end-users). An advantage for OEMs is that they can switch partners and can rapidly connect and disconnect from suppliers in different places. Through the use of what are in effect shared facilities the OEMs do not own, investment in own production capacities is reduced. This type of development of shared facilities is an aspect of a hedging strategy for dealing with the variability of demand. Another advantage is that the sharing of suppliers enables higher levels of capacity utilisation and greater efficiency. What are advantages for OEMs are potential disadvantages for contract manufacturers. If market demand weakens, contract manufacturers may find themselves with excess capacities, stock whose ownership is a subject of disagreement and limited visibility. The disadvantages for the OEMs are different. The first is the risk that if suppliers gain in financial strength, and increase their competence in product and process

development, and if OEMs become over-reliant on them, suppliers may find themselves able to alter the terms of trade and division of value added in their favour, or may even start to offer competing end-products. The second lies in the risk of a leakage of market-sensitive information to rivals.

The identification of these models of inter-firm production networks along with distinctions in the commodity chain literature between supplier-driven and buyer-driven chains are indicative of changes in the characteristics of the actors and of the ways in which these actors compete for shares in, and control of, value chains. These changes are closely related to contemporary features of the wider economic environment. Market volatility, short innovation cycles and high R&D costs are, for example, an important shaper of changes in production networks, as are the changing technological and organisational capabilities of companies. Computer simulation and digital codification of design specifications make it possible, for example, to outsource increasingly complex functions once performed in-house (Berger, Kurz, Sturgeon, Voskamp and Wittke, 2001). At the same time the emergence of global suppliers can permit companies to produce in new parts of the world, creating new territorial divisions of labour, and altering the territorial distribution of value added, without having to rely solely on their own internal capabilities or on the existing capabilities of the areas into which they move. Instead they can rely on specialised suppliers who may relocate with them.

Modes of governance and growth

The evolution of enterprises and of the territorial division of labour depends finally on a range of other economic, political, institutional and cultural resources that enterprises do not create, and on the overall model of growth.

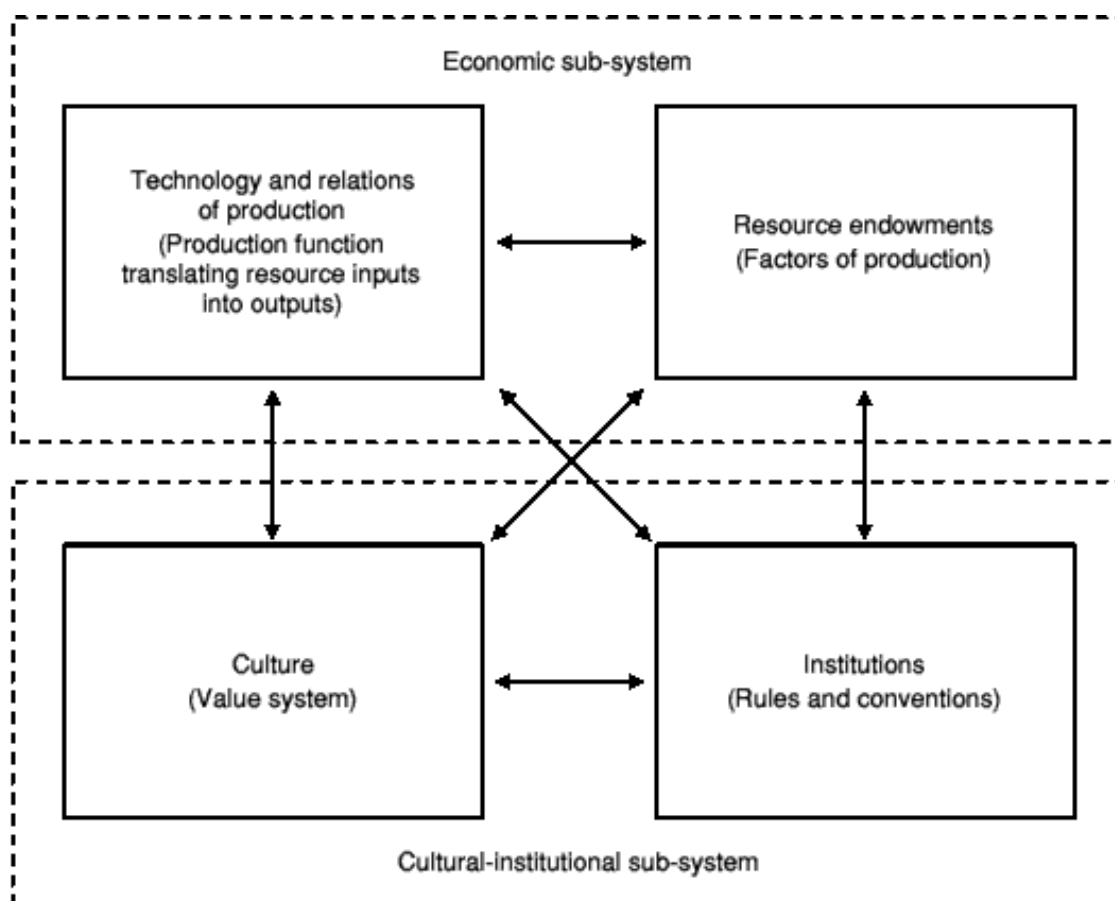
Analyses of the role of social and cultural conditions are associated with the idea that there are national variants of capitalism. According to this view the specialisation and the trajectories of different national economies depend on nationally-distinct institutional configurations, with distinctive sets of rules, laws and institutions regulating the system of corporate governance, the industrial relations system, the educational and training system, the relations between companies, the credit and financial system, and state-industry relations, embracing macroeconomic, industrial, competition, innovation and spatial policies (Streeck, 1989; Dunford, 1991). These distinctive institutional configurations are seen as falling into a range of types identified as varieties of capitalism. An example of literature in this genre is 'Capitalism against capitalism' (Albert, 1993) in which the author distinguished 'neo-American' and 'Rhine' models of capitalism, and sought to show that the social foundations of capitalism play a major part in determining comparative economic performance. Albert argued, justifiably, it seemed in the early 1990s, in favour of the economic and social superiority of the Rhine model. As the 1990s advanced however it was Anglo-American economies that outperformed continental European economies. These differences in economic performance led to arguments concerning the superiority of the Anglo-American 'outsider' model of corporate control with large equity markets, dispersed ownership and active corporate control markets as compared with the 'insider' continental European model with a smaller number of quoted companies, more concentrated share ownership and a relatively small amount of takeover activity (for a discussion of these arguments, see Streeck, 2001). At the end of the decade, however, increased awareness of the extent of stock market speculation on the one hand and of the unexpectedly weak results of many mergers and takeovers on the other undermined the view that the Anglo-American model was an efficient way of allocating resources and disciplining companies.

An important question that arose in the face of system competition and increased integration and globalization is whether there is a convergence in institutional structures and organisational models towards common market-driven models. As in the case of economic convergence there are in fact forces working in two directions at the level of the firm and at the level of their institutional environment. As firms demand more autonomy from national product, capital and labour market

rules, and greater freedom to make their own choices, there is a weakening of national frameworks of regulation, implying a certain degree of convergence essentially on a liberal model. At the same time the movement of regulation to the international level implies a consequent dissolution of differences between national and regional systems and a replacement of public regulation by private international product and capital markets (with their stricter criteria of profitability and shareholder value). Yet differences in the structures and strategies of firms and in national systems remain. At present there is not a single optimal way for managing international or national operations. Instead structure and strategy vary widely and depend in part on the history of firm, its country of origin and its method of adaptation to the specific national contexts in which it locates. Streeck (2001) suggests that the pressure for convergence is reduced by several factors. On the one hand regulation is in many cases a response to specific market failures or is designed to establish certain social rights and to make firms responsible not just to their shareholders but also to their employees and the general interest. Generally firms have found ways of using these arrangements to increase their productivity and competitiveness, making them less onerous. A further erosion of this framework is not without risks that are both economic and social. At a social level for example it complicates the task of governments that must satisfy the needs of firms that pay less tax, choose where to pay it and make a smaller contribution to social objectives, while ensuring the social viability of a competitive market economy. On the other enterprises can secure competitive advantage by exploiting the specific capabilities and advantages of different countries essentially through specialising in activities that reflect their economic, institutional and cultural advantages, and can find complementary resources not provided by their own national institutional settings internationally. The Italian district model might survive for example if those parts of the value chain involving low-skilled and low-paid manufacturing jobs were integrated into the extra-Italian part of integrated production networks, while activities suited to Italian institutional conditions would survive in Italy itself.

The specific pathways to development will also depend in important ways on the wider institutional context and in particular on the framework of rules regulating trade and competition. New trade rules, economic liberalization and the collapse of the Communism have altered the conditions of access to foreign markets and investment in overseas economies. The creation of regional entities like the European Union have transformed access to markets. Institutional configurations also have an impact at the local level, as do the nature of local cultures, political systems and institutional performance (see Figure 2.11 which identifies possible interactions without attributing relative causal weight to them).

Figure 2.11 Explaining development (adapted from Hayami, 1997:11)



Also relevant, finally, are modes of growth themselves characterised by the relative importance of different sources of income and the ways in which income is distributed (Boyer and Freyssenet, 2000: 10-17). As the mode of growth varies, so do the risks associated with the evolution of the markets for goods and for labour differ, altering the conditions in which profit strategies unfold. Growth can depend to different extents, for example, on investment, exports or domestic consumption. In the first case a large share of income is invested in infrastructures or in capital goods. The dominance of domestic demand implies the distribution of a large share of national income in ways that increase the purchasing power of consumers. A leading role for exports implies that economic performance depends on the dynamism of international markets and the competitiveness on global markets of domestic output. Similarly income distribution plays an important role. Boyer and Freyssenet (2000: 10-17) distinguish : competitive distribution which depends on power relations and the scope for financial, commercial and real estate gains; rationed distribution characteristic of wartime economies, years of reconstruction or Soviet-type economies with high rates of investment; moderately hierarchical co-ordinated/managed distribution; and unequal distribution in societies in which small oligarchies appropriate a large share of national income. The combination of sources of income and income distribution give rise to modes of growth which determine the volume and structure of the demand for goods and labour, the underlying contradictions and some of the contours of the economic activities that shape the territorial division of labour.

Conclusions

Contemporary trends towards greater economic integration and globalization are leading towards a reshaping of the social and territorial division of labour. The theoretical literature suggests that the outcome will depend on the relative weight of centripetal forces related to scale economies and market access on the one hand and centrifugal forces related to the relocation of factor-cost sensitive activities in low cost peripheral areas on the other.

After outlining some of these theoretical ideas, several further arguments have been developed . These arguments involve a synthesis and further development of a number of different perspectives (see also Perrons, 2001). The first is that the evolution of the territorial division of labour depends not just on where activities are located but also on the answers to what and when questions which implies that analyses of location should be integrated into a more general explanation of the evolution of capitalist enterprises. Second, these more general explanations should involve an approach which starts with the profit and upgrading strategies of individual enterprises yet integrates this approach with analyses of their changing relations with their external environment. Third, the conditions in which development strategies unfold and by which they are shaped are, as cumulative causation approaches make clear, the result of previous phases of development.

This framework offers ways of interpreting some of the major changes that characterise the contemporary evolution of the social and territorial division of labour. To reduce their exposure to risk, for example, it has been argued that formerly vertically integrated corporations are concentrating on core competences and acquiring goods and services they no longer produce from specialist suppliers. Some OEMs concentrate on research, design and distribution and entrust manufacturing operations to specialised operations. Often these specialised suppliers assume a disproportionate share of risk and are subject to strong downward pressure on costs. At the same time there are processes of relocation driven by a range of factors. Management, research, development, design, marketing and advanced producer services requiring highly skilled white collar workers are concentrated in core countries, while less skilled manufacturing is located in less developed areas and countries where wage costs in particular are small. In the cores alongside these export oriented activities there emerges a raft of personal services associated with low incomes and contributing to strong intra-regional inequality. The delocalisation of unskilled jobs sometimes creates parallel structures that enable companies to secure concessions from employees and governments in high cost areas and to erode existing social compromises. Most often it results in the replacement of operations in cores by similar work in peripheries, creating new complementarities between core and peripheral locations. Sometimes there are also movements of technology and skill intensive manufacturing operations to peripheral areas not just to supply local markets but also to serve the cores, suggesting that there may be a more wholesale relocation of manufacturing to peripheral areas. What results is the location of different parts of value chains in different places in accordance with variations in costs (including transport and logistic costs), skills, the research environment and services, while the consequent weaving of different places into transnational production systems linked by global communications, transport and logistic systems creates new sets of pressure for change on, for example, relative wages as the relocation of jobs shifts the map of demand and supply for labour of different kinds.

At a regional scale these dual processes of reorganization and relocation of economic activities are leading to radical shifts in the types of enterprise and areas of activity found in different places and to different regional occupational and employment structures, skill mixes and wage profiles, which themselves are helping reshape the map of relative regional economic development. At the same time every enterprise and every regional economy is constantly evolving. Not all are however at different stages of the same development path, as is implied for example in some of the simple upgrading literature. For this reason the more developed parts of the world do not afford a picture of the future of the less developed parts.

Notes

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